HELIX INTEGRATION

AUDIO · VIDEO · AUTOMATION · NETWORKING · SECURITY

HELIX INTEGRATION · INSTALLER EDITION

Setup Instruction Sheets

How to set up the Helix hub, get it online, set up Android and iPad tablets, start programming in Composer, install devices from light switches to irrigation, and collect a room-by-room device list from the customer.

Contents

Sheet	What it covers
Sheet 1 of 6 — Initial Hub Setup and Getting Online	Hardware, power, LAN, Composer, kiosk, relay pairing, license, updates, legal sign
Sheet 2 of 6 — Tablet Setup, Android	PoE wall tablets · kiosk at port 8080 · always-on · auto-start · lockdown
Sheet 3 of 6 — Tablet Setup, iPad	Helix Control or Safari Home Screen · Auto-Lock off · Guided Access
Sheet 4 of 6 — Start Programming in Composer	Projects, rooms, Add device, scenes, menu editor, Alarm (test mode)
Sheet 5 of 6 — Device Install: Lights through Irrigation	Switches, fans, plugs, shades, climate, garage, locks, alarm, cameras, AV, pond, energy, irrigation
Sheet 6 of 6 — Room & Device Intake	Customer form: rooms, devices, and how each one connects

Safety and use. These sheets are for trained Helix installers. They are not a substitute for local electrical or fire code, or for a licensed electrician, HVAC, locksmith, or irrigation contractor where the job requires one. Turn the circuit breaker off and verify the circuit is dead before opening a wall box. Never port-forward ports 8080 or 8090. This packet contains no passwords, PINs, API keys, tokens, camera stream URLs, or client secrets. Values in angle brackets, such as `<HUB-IP>`, are placeholders. Items marked **Beta – confirm with Helix support** are not confirmed yet; ask Helix support before relying on them. Items marked **Beta – steps may change** are not yet verified on production hardware. Items marked **[planned]** are not connected in the current software and must not be sold as working. The native Helix alarm is built but is not released for live monitoring.

HELIX INTEGRATION
Installer instruction sheets · November 2026
Wentzville, Missouri · helixintegrate.com

SHEET 1 OF 6

Initial Hub Setup and Getting Online

Hardware, power, LAN, Composer, kiosk, relay pairing, license, updates, legal sign

Beta – steps may change The launch hub is a Raspberry Pi 5. A production image on a fresh Pi 5 is still being verified. Power options are the official 27W USB-C plug-in supply, or PoE+ for rack installs. Items marked **Coming soon** are not live yet.

Safety and use

These sheets are for trained Helix installers. They are not a substitute for local electrical or fire code, or for a licensed electrician or alarm contractor where the job requires one.

- Turn the circuit breaker off and verify the circuit is dead before opening a wall box or touching line-voltage wiring.
- The hub itself is low-voltage (powered by the supplied power supply). Wall tablets on PoE, cameras, and any line-voltage relays, heaters, pumps, or irrigation valves are not.
- Never port-forward ports **8080** or **8090** on the customer's router. The hub is not meant to sit on the public internet.
- This document contains no passwords, PINs, tokens, camera stream URLs, or device secrets. Use placeholders such as `<HUB-IP>`. Get real values only from the Helix credential vault, and enter them only on the customer's hub.
- Do not send garage, lock, heater, or alarm commands on a live house without the homeowner present and a clear go-ahead.
- The alarm features described later in these sheets are built in software but are **not released** for live monitoring. Do not tell a customer the house is professionally monitored until Helix has said that path is live.

What this sheet covers

How to unbox and power the Helix hub, wire it to the LAN, find it on the network, open Composer and the kiosk, pair the Helix Control app to the relay at `relay.helixintegrate.com` with the short typed pairing code, activate the device license, check for updates, and complete the one-time legal sign screen.

Programming rooms and devices is **Sheet 4**. Tablets are **Sheets 2 and 3**. Installing switches, sensors, cameras, and irrigation is **Sheet 5**.

1. What the hub is

The Helix Controller Hub is the always-on server for a Helix home. It runs both halves of the system:

Service	Address	Who uses it
Kiosk (family dashboard, plus every device driver, scene, and schedule)	`http://<HUB-HOSTNAME>.local:8080` or `http://<HUB-IP>:8080`	Wall tablets, iPads, phones
Composer (programming tool, PIN-locked)	`http://<HUB-HOSTNAME>.local:8090` or `http://<HUB-IP>:8090`	Installer laptop or phone

The default hostname on a Helix Controller Hub is `helix-ch01` **Beta – steps may change**, so the usual addresses are `http://helix-ch01.local:8080` and `http://helix-ch01.local:8090`.

Beta – confirm with Helix support Some jobs may ship on different approved hardware. These sheets describe the Helix Controller Hub; ask Helix support if your hub is a different model.

Always wire the hub by Ethernet. Wi-Fi is not supported for the hub itself.

2. What's in the box

Beta – steps may change Typical package (contents may change):

1. Helix Controller Hub, with the serial label on the underside.
2. Power, as ordered: the official Raspberry Pi 27W USB-C supply (standard plug-in), or a Pi 5-compatible PoE+ HAT or 5 V / 5 A PoE+ USB-C splitter (rack). Use only the power option that shipped with the hub. A phone charger or a weaker supply can cause random restarts.
3. Storage with the Helix system image already loaded by Helix.
4. Helix setup stick (USB, volume label `HELIX`), if this hub is not already installed.
5. Cat6 Ethernet patch cable.
6. Quick-start card with the serial number.

Record the hub serial number and the client name on the job sheet before you start. Do not write passwords on the hub, the stick, or the quick-start card.

Leave about 5 cm (2 in) of clearance around the case. Do not stack the hub directly on other hot gear. See **Power options** below before you plug anything in.

Power options

The Raspberry Pi 5 needs **5 V at up to 5 A (25.5 W)** for full USB peripheral power. Use **one** of the two options below, not both at the same time.

Standard: USB-C plug-in

Use only the official Raspberry Pi 27W USB-C power supply (5.1 V, 5 A, US plug) that ships with a standard hub. A phone charger, a Raspberry Pi 4 15 W (3 A) supply, or any weaker USB-C supply can cause restarts and limits USB devices to 600 mA.

1. Plug the supply into a UPS battery outlet (see Wiring and power).

2. Plug the USB-C end into the hub.
3. Connect Ethernet for data only, on a normal switch port or any spare port on the PoE switch.

PoE+ for rack installs

Power and network share one Ethernet cable. This needs an **IEEE 802.3at PoE+** switch port, which can deliver **25.5 W**. A standard 802.3af PoE port (15.4 W) is not enough.

Use one of these, both 5 V / 5 A and 802.3at:

- A **Pi 5-compatible PoE+ HAT** (for example Waveshare PoE HAT (H), isolated). The official Raspberry Pi PoE+ HAT made for Pi 4 and 3B+ does **not** fit the Pi 5 (the PoE header moved) and only supplies 5 V / 4 A. Do not use it.
- Or a **PoE+ USB-C splitter**, 5 V / 5 A, 802.3at, with gigabit Ethernet. This keeps the official USB-C power jack and stays low enough for a tight 1U tray. Do not use a 5 V / 2 A or 5 V / 3 A splitter.

1. Confirm the switch port is PoE+ (802.3at, 25.5 W), not af-only and not a data-only port.
2. Put the PoE+ switch on the UPS battery outlets. The hub then rides on the switch; do not rely on a wall wart for the hub.
3. HAT: connect the hub Ethernet port to that PoE+ port. Splitter: connect the PoE input to that port, the splitter's USB-C output to the hub, and the splitter's LAN output to the hub Ethernet port.
4. Do not also plug in the 27W USB-C supply.

The official Raspberry Pi 5 case fits the Waveshare PoE HAT (G), (H) and (J). A 19-inch 1U Pi tray can be tight: some taller HATs have shorted against the equipment above. If the HAT does not clear the tray, use the USB-C splitter instead. Confirm fit on the actual tray before leaving the shop.

Beta – steps may change If USB devices other than a low-power radio dongle need the full 1.6 A budget, the hub may need a firmware USB current override when power does not come from the official 27W PD supply. Ask Helix support before changing that setting.

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3. Wiring and power (including battery backup)

The wall tablet that shows the kiosk (and, later, the alarm panel) is usually powered by a PoE switch. If the power goes out and that switch is not on a UPS, the tablet goes dark. **Every job should put a battery backup (UPS) on the PoE switch that powers the kiosk tablet, and on the hub, the router, and the Wi-Fi access points that sensors and tablets use.**

3.1 Rack wiring

1. Plug the UPS into a grounded wall outlet. Use a line-interactive or online UPS. Prefer a **pure sine wave** unit.
2. Plug these into the UPS battery outlets, not into a surge-only strip: the router or firewall, the PoE switch, the Wi-Fi access points (or their injectors), and — for a standard plug-in hub — the official 27W supply. For a PoE+ hub, the switch carries the hub; the switch must be on the UPS. See Power options.
3. Standard plug-in: connect the hub Ethernet port to a normal (data) switch port. PoE+ rack: connect the hub or the USB-C splitter to an 802.3at PoE+ port (25.5 W), as described in Power options.
4. Connect wall tablets and PoE cameras to PoE ports on the same LAN (or to a VLAN that can still reach the hub — see section 4).
5. In the router, create a **DHCP reservation** for the hub so its address never changes. Tablets are bookmarked to that address.

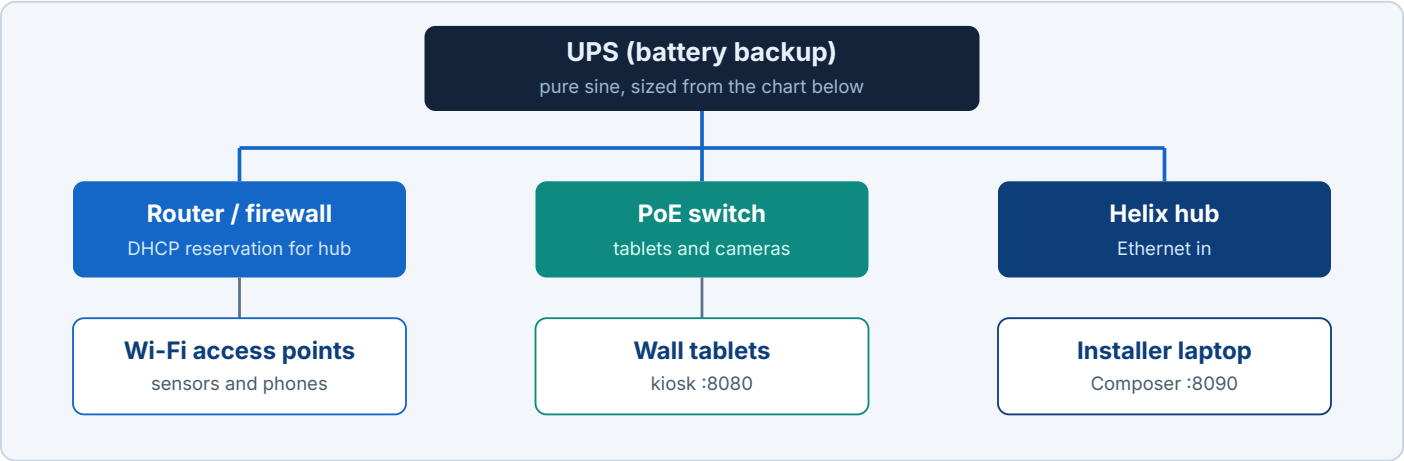

Figure. Rack wiring: everything on the UPS; the hub is wired to the switch; tablets open the kiosk on port 8080 and the installer opens Composer on port 8090.

3.2 Recommended UPS runtime chart (estimates only)

Runtimes below are **estimates**, not measurements. They use:

> **Estimated hours = (battery watt-hours × 0.85) ÷ load watts**

The 0.85 factor is a simple allowance for inverter and battery losses. Actual time varies with UPS efficiency, battery age, temperature, and the real watt draw of your gear. Always check the UPS and device nameplates, then do a short pull-the-plug test before you leave the job.

Estimated typical loads (use nameplate or a Kill-A-Watt when you can):

Package	What is on the UPS	Estimated load
A. Tablet path	PoE switch + 1 wall tablet	25 W
B. Network core	A + router/firewall + 1 Wi-Fi AP	52 W
C. Hub + core	B + Helix hub	64 W
D. Small camera set	C + 4 PoE cameras	88 W
E. Typical house	C + 8 PoE cameras + 2 extra tablets + 1 extra AP	144 W

Estimated runtime

Battery size	Usable Wh (× 0.85)	A · 25 W	B · 52 W	C · 64 W	D · 88 W	E · 144 W
150 Wh	128	5.1 h	2.5 h	2.0 h	1.5 h	0.9 h
300 Wh	255	10.2 h	4.9 h	4.0 h	2.9 h	1.8 h
500 Wh	425	17.0 h	8.2 h	6.6 h	4.8 h	3.0 h
800 Wh	680	27.2 h	13.1 h	10.6 h	7.7 h	4.7 h
1,000 Wh	850	34.0 h	16.3 h	13.3 h	9.7 h	5.9 h
1,500 Wh	1,275	51.0 h	24.5 h	19.9 h	14.5 h	8.9 h

Size the battery in **watt-hours (Wh)**, not just VA. Many small 450–650 VA desktop UPS units hold far less energy than their VA number suggests (often in the 150–300 Wh range).

Practical target: keep the hub, router, PoE switch, access points, and every kiosk tablet up for a typical outage. **30 minutes is the minimum. 2–4 hours** is a better target when the tablet will be used as the alarm keypad, or when Wi-Fi sensors need the router and AP to stay up. Zigbee sensors can keep talking to a hub that has its own USB radio and is still on the UPS, even if Wi-Fi is down. **Beta – confirm with Helix support** Whether your hub includes a Zigbee radio depends on how it was ordered; ask Helix support.

After install, pull the UPS input for two minutes and confirm: the hub still answers on `:8080` and `:8090`, the wall tablet stays on, and the router and AP stay up.

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4. Prepare the network first

Most “device offline” calls come from an IP that changed or from Wi-Fi isolation.

1. Give the hub a DHCP reservation (or a static IP). Write `<HUB-IP>` on the job sheet.
2. Keep a **2.4 GHz** SSID (or 2.4 GHz enabled on a mixed SSID). Tuya, Shelly, and most IR blasters are 2.4 GHz only.
3. Do **not** port-forward 8080, 8090, or SSH on the router.
4. If you use an IoT VLAN, allow the hub to reach those devices, and allow tablets to reach the hub on port 8080. Shelly discovery uses mDNS, so either keep Shelly devices on the same segment as the hub or enter their IPs by hand.
5. Also reserve addresses for cameras, the HDMI matrix (if any), and WiiM / Sonos players.
6. Place access points so each wall tablet has a strong signal (better than about −65 dBm).

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5. If the hub is already imaged

Many units ship with the system already installed. If the status light is already a slow heartbeat, skip to section 7.

1. Connect Ethernet first, then the supplied power supply.
2. Wait for the status light to show a **slow heartbeat** (a double blink, repeated). That means the kiosk and Composer services are running.
3. Do not unplug while the light is a solid or irregular flicker (startup or update).

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6. If you must write the image and run first boot

Beta – steps may change This install path is still being verified on production hardware. Steps may change. Most hubs ship already imaged (section 5).

Skip this section when the storage is already loaded.

6.1 System image

Coming soon. Helix loads the system image onto the hub before it ships. Installer instructions for re-imaging the current hub are being finalized. If a hub has no image, contact Helix support; do not try to flash it yourself.

6.2 Prepare the Helix setup stick

1. Format a USB stick (8 GB or larger) as FAT32 or exFAT with the volume label `HELIX` (capitals, exactly).
2. Unzip `Helix-hub-USB.zip` to the root of the stick.
3. Open `helix.conf` and check at least:

Setting	Default	Meaning
`HUB_HOSTNAME`	`helix-ch01`	Announced as `<name>.local`
`KIOSK_PORT` / `COMPOSER_PORT`	`8080` / `8090`	Dashboard and Composer
`MOCK_MODE`	`0`	`1` is demo mode (no real device commands). Keep `0` at a client's house.
`AUTO_INSTALL`	`yes`	A HELIX stick plugged in later runs install or update automatically
`TIMEZONE`	`America/Chicago`	Schedules and sunrise/sunset
`FIREWALL`	`yes`	Only the home LAN and the remote-access path can reach the hub
`INSTALL_TAILSCALE`	`no`	Leave at `no`. The phone path is the Helix relay (section 9). **Beta – confirm with Helix support** Ask Helix support before turning on any other remote path.

4. The stick holds no passwords, PINs, keys, or camera links. Optional: copy a client project backup (`*.helix.json`) into `projects/` so it imports on install.

6.3 First boot and automatic install

1. Connect Ethernet. Insert the HELIX stick in a USB port.
2. Connect power. The hub starts up (the status light, if fitted, flickers).
3. If the first-boot hook is present, the installer starts by itself. Otherwise sign in over SSH (`ssh <ADMIN-USER>@helix-ch01.local`) and run:

```
sudo mount -L HELIX /mnt && sudo bash /mnt/install.sh
```

4. Wait 5–10 minutes. The installer needs internet for the software runtime. Do not unplug.
5. At the end it prints a new kiosk/Composer PIN. Write that PIN on the job sheet only. It is also stored on the hub at `/etc/helix/initial-pin`. Change it later in Kiosk Settings, and give the new PIN to the homeowner only at handoff.
6. When the status light shows a slow heartbeat, the hub is ready. Remove the stick.

The installer is safe to run again. It does not overwrite a PIN, secrets file, layout, or project already on the hub. If `MOCK_MODE` was left at `1`, device cards will say "demo" and nothing will switch; set it to `0` and run the installer again.

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7. Finding the hub

1. From a laptop or phone on the **same network**, open `http://helix-ch01.local:8090`.
2. Log in to Composer with the kiosk PIN (the one from first boot, or the one already on this hub).
3. If `.local` names do not resolve (common on some Android devices and some guest VLANs), look up the hub in the router's DHCP client list (name `helix-ch01`) and open `http://<HUB-IP>:8090`.

4. Confirm the kiosk the same way: `http://helix-ch01.local:8080` or `http://<HUB-IP>:8080`.

If several hubs share one network, each must have its own `HUB_HOSTNAME`.

Status light

Beta – steps may change The current hub may not have a status light. If there is none, treat `http://<HUB-IP>:8080` loading as the check. The table below may change.

Light	Meaning
Slow heartbeat (double blink)	Healthy: kiosk and Composer are running
Fast blink	A service or health check failed. Run `helix-verify` over SSH.
Solid or irregular flicker	Starting, installing, or updating. Do not unplug.
Off	No power, or the hub has halted. Check the supply and the UPS.

8. Opening Composer and the kiosk

1. Composer (`:8090`) is PIN-locked. Enter the kiosk PIN on the keypad. If no PIN exists yet, Composer stays locked.
2. Changes in Composer save automatically (the header shows “Saved” with the time). Tablets see nothing until you **Send to tablets** (Sheet 4).
3. The kiosk (`:8080`) is the family dashboard. On a laptop it is a preview; the customer will use wall tablets and phones (Sheets 2 and 3).
4. Deep links, once a project exists: Composer `http://<HUB-IP>:8090/#<projectId>/<section>` and kiosk `http://<HUB-IP>:8080/?room=<roomId>`.

9. Pairing to the relay (phone access away from home)

Beta – steps may change **Coming soon** Signing in to the app away from home is being fixed and is not reliable yet. Steps may change.

Remote access for the Helix Control app (also called Helix Home in some screens) goes through Helix’s relay at `relay.helixintegrate.com`. The hub is not exposed to the public internet. **Composer itself is never reachable through the relay.** Garage doors, locks, and heat used remotely still require a Face ID confirm on the phone.

Beta – confirm with Helix support The app is called Helix Control in most places and Helix Home on some screens. How customers install it (TestFlight or the App Store) is still being finalized. Ask Helix support for the current install link.

9.1 Turn remote access on

1. In Composer, open **Remote access** (System / the Remote access control).
2. Turn on **Allow the Helix Home app to reach this hub away from home**.
3. Confirm the panel shows the relay host and that the agent is installed. If it says the remote agent is not installed, stop and get a Helix staff image or agent install — do not invent a workaround on the customer’s router.

4. Wait until the status is connected, or stay on the panel while you pair (the codes appear once the hub is registered and not yet owned).

9.2 Pair the phone with the short typed code

The hub issues two codes that represent **one** pairing, and they expire together (default **15 minutes**):

- A QR / claim code, for scanning in the app.
- A **typed short code**: 6 characters from `ABCDEFGHJKMNPQRSTUVWXYZ23456789` (no `0`, `O`, `1`, `I`, or `L`), shown as `ABC-123`.

Either code works **once**. Using one cancels the other. **Five wrong guesses** delete the pairing. Never photograph a live code for a group chat or a ticket, and never print a real code in a manual. The example `ABC-123` is the format only.

1. On the phone, install Helix Control / Helix Home and sign in to the installer's or homeowner's Helix account.
2. Start pairing and either scan the QR code, or tap **Enter code instead** and type the short code (spaces and dashes are fine: `ABC-123`, `abc123`, or `ABC 123`).
3. Give the hub a plain name such as `Home`. The phone should show that the hub is paired.
4. Confirm in Composer's Remote access panel that the hub is owned / paired.
5. From an **off-home** connection (phone cellular, Wi-Fi off), open the app and confirm the kiosk loads. Then confirm that Composer is still only available on the LAN (or over an approved support path), not in the app's remote session.

If the code expires, turn Remote access off and on, or reopen the panel, and pair again with a fresh code.

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10. License and device activation

Beta – steps may change

Each hub has a device fingerprint. A signed Helix license file must match that fingerprint.

1. On the kiosk, look at the top of the screen after a reload. A licensed hub shows no license banner.
2. If you see **Helix license: grace period — N days remaining**, the hub is still fully usable, but the license is missing, mismatched, expired, or not yet verified. You have 30 days from the first unlicensed check. Contact Helix Integration and get a license issued for **this** hub. Do not copy a license file from another hub — that produces a **mismatch**.
3. If you see **Helix unlicensed**, the grace period has ended. Non-safety features show the banner; alarm, locks, and safety controls stay available. Contact Helix Integration.
4. Helix staff match a signed `license.json` to the hub's fingerprint (`/api/license/device` on the hub). Installers should not edit fingerprint or license files by hand.

Beta – confirm with Helix support The license request and activation process is still being finalized. Contact Helix support; do not edit license files by hand.

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11. Check for updates

Beta – steps may change **Coming soon** The update channel is being refreshed. Do not install an update unless Helix support has told you to.

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1. In Composer go to **Installer → Settings → Check for updates** (or the Check for updates control).
2. Tap **Check for updates**. The card reports one of: - **Up to date** — this hub already runs the newest published release. - **Update available** — a newer release is published. The card shows the new version and what this hub is running. - **Can't check** / an error — the hub could not reach the release list. Check the hub's internet path and try again.
3. Opening the panel only **checks**. It does not install anything by itself.
4. If an update is available and the customer has approved it, use the install button on that same panel. The hub takes a backup first, installs the new release, and runs a health check. If the health check fails, the hub rolls itself back automatically.
5. Do not install an update in the middle of a live demo. After an update, refresh each tablet.

A USB stick update is also supported on hub: copy the release archive into `updates/` on a stick labelled `HELIX` and plug it in (`AUTO_INSTALL=yes`), or run the stick's `update.sh`. Client data (PIN, secrets, layout, projects) is not overwritten by an update or a rollback.

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12. The accept-once legal sign screen

Beta – steps may change

The first time someone uses a hub that has a published disclosure, Helix shows a full-screen sign screen.

1. Open the kiosk or the Helix Control app on a phone that can reach the hub.
2. Tap **Read the full document** and scroll to the end. The agreement boxes stay disabled until the document has been opened.
3. Tick every required box (the current document uses 14 boxes). Type the signer's **full legal name** and the **account PIN**.
4. Tap **I Agree**. The button stays disabled until the document has been read, every required box is ticked, and the name and PIN are filled.
5. After a successful accept, this screen should not appear again on that hub for the same document version. A major new version can show a "what changed" notice and lock doors, heaters, and vehicle start until it is signed again. Status reads and emergency-off stay available.
6. Until the disclosure is signed, the hub refuses protected actions (doors, heaters, vehicle control) with an error (`428`). Signing is required before you demonstrate those features to the customer.
7. Small risk banners on doors, heaters, and vehicles can be dismissed with **×**. Dismissal is remembered for the current disclosure version only.

Beta – confirm with Helix support The wording on the sign screen is not final legal language yet. Ask Helix support before presenting it to a customer.

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13. Quick checks before you leave the rack

1. `http://<HUB-IP>:8080` and `http://<HUB-IP>:8090` both load.
2. The status light is a slow heartbeat.
3. The hub has a DHCP reservation.
4. The UPS holds the hub, router, PoE switch, and APs. A two-minute pull-the-plug test passed.
5. Remote pairing is done, or you have a plan to pair the homeowner's phone at handoff.

6. There is no license mismatch banner, or a license request is already in with Helix.
7. Updates have been checked.
8. The legal disclosure is signed, or you will have the homeowner sign it on their phone at handoff (their PIN is required).
9. `MOCK_MODE` is `0` on a live house.

14. Troubleshooting

Symptom	What to do
`helix-ch01.local` is not found	Use `<HUB-IP>` from the router DHCP list. Confirm the hub is wired and on the same VLAN. mDNS is often blocked between VLANs.
Status light fast blink	Over SSH, run `helix-verify`. Services restart on their own within a few seconds.
Install stopped	Usually no internet. Fix the path and run `install.sh` again (safe).
HELIX stick ignored	Volume label must be exactly `HELIX`. `AUTO_INSTALL` must be `yes`.
Random restarts	Use only the power supply supplied with the hub. Check the UPS.
Forgot the PIN	The initial PIN is on the hub at `/etc/helix/initial-pin`. Do not write it in a ticket or a group chat.
Cards say "demo" / devices do nothing	`MOCK_MODE` is on. Set it to `0` and re-run the installer.
License mismatch	Do not copy another hub's license file. Ask Helix to issue one for this fingerprint.
Pairing code rejected	It expired (15 minutes), was already used, or had five wrong guesses. Request a new code.
Phone works at the house but not away	Remote access is off, the agent is not connected, or the phone is not paired. Composer will not open through the relay — that is expected.

Next: set up wall tablets (Sheet 2, Android, or Sheet 3, iPad), then program the house in Composer (Sheet 4).

HELIX INTEGRATION
Installer instruction sheets · November 2026
Wentzville, Missouri · helixintegrate.com

SHEET 2 OF 6

Tablet Setup, Android

PoE wall tablets · kiosk at port 8080 · always-on · auto-start · lockdown

Safety and use

- The tablet shows the family dashboard. It is a thin client. Everything it displays comes from the hub at `http://<HUB-IP>:8080`. If the hub, the network, or the PoE switch is down, the screen will not control the house.
- Most in-wall Android panels are powered by **PoE** from the switch. Put that switch on a UPS. See the battery-runtime chart in **Sheet 1, section 3**. A tablet used as the alarm keypad is useless in an outage if its PoE switch is dark.
- Use a licensed low-voltage or electrical contractor when the job requires one, especially for in-wall power, new Ethernet drops, or cutting into finished walls.
- Do not port-forward port 8080. Do not type PINs, camera URLs, or Wi-Fi passwords into a screenshot, a ticket, or a group chat.
- Keep the look clean: the kiosk is a full-screen dashboard, not a general-purpose Android tablet.

What this sheet covers

How to mount and power an Android wall tablet (PoE panel), point it at the hub's kiosk, keep the screen on, auto-start after a power cycle, lock the tablet down, and register it to a Composer tablet profile.

1. What you need

Item	Notes
Android wall tablet or panel	An Android panel with a PoE input and a current web browser. **Beta – confirm with Helix support** Helix has not published an approved panel list. Ask Helix support which panel to buy before you order.
PoE switch port	802.3af is enough for a typical 8-inch panel. Confirm the panel's PoE class on the nameplate.
Ethernet drop	Same LAN (or a VLAN that can reach the hub on port 8080). Cat6 preferred.
UPS	On the PoE switch, and on the hub, router, and access points (Sheet 1).
Hub address	`http://<HUB-IP>:8080` or `http://helix-ch01.local:8080`. Prefer the reserved IP; some Android devices do not resolve `.local` names.
Composer access	`http://<HUB-IP>:8090`, so you can add a tablet profile and a pairing code.

Item	Notes
Optional kiosk launcher	A dedicated kiosk/launcher app, or Android screen pinning, so the user cannot leave Helix. **Beta – confirm with Helix support** Helix has not named a preferred kiosk app. Use the panel maker's kiosk mode or screen pinning, and ask Helix support if unsure.

Plan one panel per main room, plus the kitchen, unless the job specifies otherwise.

2. Power, network, and mounting

1. Run a dedicated Ethernet drop to the tablet location. Do not share a dropped cable with a camera if the panel needs a full PoE budget of its own — **Beta – confirm with Helix support** give each tablet its own drop and PoE port unless Helix support confirms sharing for your model.
2. At the rack, patch that drop to a PoE port on the UPS-backed switch.
3. In the router, create a **DHCP reservation** for the tablet so its address stays put (useful for support, not required for the kiosk to work).
4. Confirm the tablet and the hub are on networks that can talk. The tablet only needs to reach `<HUB-IP>` port **8080**.
5. Power the panel from PoE and confirm it boots to Android.
6. Mount the panel in the manufacturer's in-wall or on-wall kit, level, at a height the household can reach. **Beta – confirm with Helix support** Helix has not set a standard mounting height. Keep vents clear.
7. If the panel also has a DC barrel input, prefer PoE so the UPS at the switch keeps it alive. Do not double-power it unless the manufacturer says that is allowed.

3. Point the tablet at the kiosk

1. Connect the tablet to the **customer Wi-Fi only if it is not already on Ethernet**. Prefer Ethernet/PoE for wall panels.
2. Open Chrome (or the panel's system browser) and go to:

`http://<HUB-IP>:8080`

If Composer already has a profile for this tablet, use the link on that card, which looks like:

`http://<HUB-IP>:8080/?tablet=<id>`

3. Confirm the Helix kiosk loads (rooms, clock, weather, or the empty default if the project has not been sent yet).
4. In Chrome: ⋮ → **Add to Home screen / Install app**. Open Helix from that home-screen icon from now on, not from a loose browser tab.
5. If `.local` fails, use `<HUB-IP>`. Write the working URL on the job sheet.

4. Keep the screen on

The wall panel must not sleep.

1. Open Android **Settings → Display**.

2. Set screen timeout / sleep to **Never**, or to the longest time the panel allows, then also apply a kiosk or "screen always on" setting if the manufacturer provides one.
3. On some panels there is a vendor setting for "screensaver off," "always on when charging/PoE," or "digital signage / kiosk." Turn those on so the system cannot dim to black after a few minutes. **Beta – confirm with Helix support** Menu names differ by panel and firmware; check the panel manual.
4. Set brightness to a level that is readable in that room by day and at night. Avoid auto-brightness if it hunts or goes too dark at night.
5. Turn off a screen saver that shows photos or a clock over the kiosk.
6. Confirm: wait several minutes, and after a poE hiccup, that the Helix dashboard is still visible without a tap.

---

5. Auto-start after power loss

When the UPS runs out or the switch is rebooted, the tablet must come back to Helix by itself.

1. In the kiosk launcher, the panel vendor settings, or Android **Settings**, set Helix (the home-screen / installed PWA, or Chrome with the kiosk URL) as the **startup app**.
2. Disable "show lock screen at boot" if the panel would otherwise sit on a swipe or PIN after a power cycle. If you keep a boot lock for theft protection, the household must know it — and an alarm keypad that needs an Android unlock first is a poor design. Prefer kiosk mode with no lock screen. **Beta – confirm with Helix support** Ask Helix support before turning on a boot lock.
3. Reboot the tablet (or unplug PoE for ten seconds and reconnect). It should return to the full-screen Helix kiosk without any installer taps.

---

6. Lock the tablet down

Tips that keep the panel as a dedicated Helix screen:

1. **Kiosk launcher or screen pinning.** Use the vendor kiosk mode if the panel has one. Otherwise: open Helix, then **Overview / Recents → pin the screen** (Android screen pinning). Require a PIN to unpin, and do not use the same PIN as the Helix kiosk PIN.
2. **Hide or disable the navigation bar** if the firmware allows it, so a casual tap cannot open Settings.
3. **Remove extra home-screen apps** or move them off the default launcher. The family should not see Play Store, YouTube, or a web browser as the first thing on the glass.
4. **Turn off system update pop-ups** during commissioning, then apply Android and firmware updates while you are on site, and reboot back into kiosk mode. Unattended OS updates can leave the panel on a setup wizard.
5. **Turn off notifications** from other apps, Google, and the vendor launcher so they do not cover the dashboard.
6. **Disable Google / guest accounts** you do not need. If a Google account is required for the Play Store, use a job account, not a personal one, and lock the store afterward. **Beta – confirm with Helix support** Ask Helix support if a Google account policy applies to your job.
7. **Do not** show the Helix kiosk PIN, the Composer URL, or the tablet pairing code on a sticker on the bezel.
8. Set a unique owner-unlock PIN for the Android settings if the panel allows it, and record it only in the credential vault.

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7. Register the tablet in Composer

Each wall panel can have its own start room and tile layout.

1. In Composer go to **Tablets** and add a tablet. Name it for the room, for example `Kitchen wall`.
2. Set the default room and any per-tablet tile layout.
3. On the tablet, either: - Open the exact link from the Composer card: `http://<HUB-IP>:8080/?tablet=<id>` once, or - Open Helix menu (tap the Helix logo) → **This tablet** → enter the pairing code shown in Composer.
4. The assignment is stored in that tablet's browser storage. It will now open on its default room.
5. After you **Send to tablets** in Composer, pull down to refresh, or close and reopen the home-screen app, so the new layout appears.
6. To reset: open `http://<HUB-IP>:8080/?tablet=none`, or Helix menu → **This tablet → Unregister** (the kiosk must be unlocked).

Unlock with PIN (**This tablet**) shows every tile for 10 minutes. An orange "Unlocked · Lock" pill locks it again. Five wrong PIN entries lock the pad for 5 minutes.

8. Test

1. The dashboard fills the screen with no browser chrome.
2. After five minutes idle, the screen is still on and still on Helix.
3. After a PoE unplug/replug, the tablet boots back to Helix alone.
4. Changing rooms and opening a tile works.
5. The correct default room loads after a refresh.
6. Unpinning or leaving kiosk mode requires the Android PIN you set, not nothing.
7. On the UPS, killing wall power keeps this tablet on (Sheet 1 test).

9. Troubleshooting

Symptom	What to do
Page won't load	Ping `<HUB-IP>` from another device. Confirm port 8080, the Ethernet link, and that the tablet is not on a guest Wi-Fi that cannot see the hub. Try the IP, not `.local`.
Old layout after programming	Send to tablets in Composer, then close and reopen the home-screen app (or pull to refresh). A service worker can hold an old copy until the refresh.
Screen sleeps	Re-check timeout, vendor "always on," and that the panel still sees PoE power.
Comes up on the Android launcher after a reboot	Startup app is not set. Set Helix / the kiosk launcher as the boot app and test again.
`.local` **never works**	Expected on some Android builds. Use the reserved IP and a home-screen shortcut to `http://<HUB-IP>:8080`.
Tablet lost its profile	Browser data was cleared. Re-open the `?tablet=<id>` link or re-enter the pairing code.
Can't reach Composer from the tablet	That is normal if you only need the kiosk. Composer is port 8090 and is for the installer.

Next: if this house also has iPads, continue with Sheet 3. Otherwise start programming in Composer (Sheet 4).

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SHEET 3 OF 6

Tablet Setup, iPad

Helix Control or Safari Home Screen · Auto-Lock off · Guided Access

Safety and use

- An iPad showing Helix is still a thin client of the hub. It must reach `http://<HUB-IP>:8080` on the home LAN. Away-from-home use goes through the Helix relay and the Helix Control app (Sheet 1), not through a router port-forward.
- Put the iPad's charger on the same UPS as the hub and network gear if this iPad is a household control point, especially if it will be used as an alarm keypad later.
- Do not write the Guided Access passcode, the Helix kiosk PIN, or the tablet pairing code on the bezel or in a photo.
- These steps use only the features in current iPadOS Settings, Safari, Guided Access, and the Helix Control app. Menu names can shift slightly with iPadOS versions.

What this sheet covers

How to set up an iPad as a Helix kiosk: either the **Helix Control** app, or Safari added to the Home Screen; how to turn **Auto-Lock** off; how to use **Guided Access**; power; and how to register the iPad to a Composer tablet profile.

Beta – confirm with Helix support The app name and install route (TestFlight or App Store) are still being finalized, and Helix has not picked one path for a dedicated wall iPad. Both paths below work; ask Helix support which to use.

1. What you need

Item	Notes
iPad	A current iPad or iPadOS version that can stay on power and run Safari or Helix Control. **Beta – confirm with Helix support** Helix has not published a minimum iPadOS version or an approved model list.
Power	Official (or quality) USB-C or Lightning power supply and a mount or stand that can keep the cable seated. For a wall iPad, use a lockable in-wall or on-wall kit.
Home Wi-Fi	Same network as the hub, or a VLAN that can reach port 8080. Prefer a reserved DHCP address for the iPad.
Hub address	`http://<HUB-IP>:8080` (prefer the reserved IP).
Composer	`http://<HUB-IP>:8090`, to create the tablet profile.

Item	Notes
Optional	Apple Configurator / MDM with a Web Clip and Single App Mode, for a multi-iPad fleet.

2. Power and placement

1. Place the iPad where the household will actually use it (kitchen, entry, or a wall kit in a main hall).
2. Use a mount that supports the iPad and holds the charging cable so daily use cannot unplug it.
3. Plug the charger into UPS-backed power if this screen must survive an outage (Sheet 1).
4. Join the iPad to the customer Wi-Fi. Confirm it can load a simple local page and that it has a strong signal (better than about −65 dBm).
5. In the router, add a DHCP reservation for the iPad.
6. Set the iPad language and time zone to the house. Turn on Do Not Disturb / Focus if other notifications would cover the kiosk, once Helix is installed.

An iPad is not a PoE device. If the job needs PoE-only wall power, use an Android PoE panel (Sheet 2) or a third-party iPad PoE adapter/kit that the mount vendor supports — **Beta – confirm with Helix support** Helix has not approved a specific iPad PoE kit. Ask Helix support.

3. Path A — Helix Control app

Use this when the iPad should behave like the household phones (pairing, notifications, and the same app chrome).

1. Install **Helix Control** (Helix Home) from the link Helix provides (TestFlight or the App Store).
2. Sign in with the homeowner or installer account that will own this house.
3. If this iPad is at the house, the app should find the hub on the LAN. If you are pairing remote access, use the short typed code or QR code from Composer → Remote access (Sheet 1, section 9).
4. Open the home dashboard and confirm rooms load from this hub, not from a demo project.
5. For a dedicated wall iPad, continue with Auto-Lock (section 5) and Guided Access (section 6) so the iPad cannot be used as a general tablet.
6. For push alerts: in the app or in the kiosk menu, open **Notifications** (the kiosk path is Helix menu → Notifications, and it asks for the kiosk PIN). Allow iOS notifications when prompted.

Beta – confirm with Helix support Push notifications may not be enabled in the build you install. Ask Helix support before promising alerts.

4. Path B — Safari home-screen web app

Use this when the iPad should look like the wall-tablet kiosk (full dashboard, no app-store wrapper). This is the path documented in the H1 programming manual.

1. Open **Safari** (not Chrome) and go to:

`http://<HUB-IP>:8080`

If a Composer tablet profile already exists, use:

`http://<HUB-IP>:8080/?tablet=<id>`

2. Confirm the Helix kiosk loads.
3. Tap the **Share** button → **Add to Home Screen**. Name it `Helix`.
4. Open Helix only from that Home Screen icon. Opening it in a regular Safari tab will show browser chrome and is easier to navigate away from.
5. If Safari warns about the connection (plain HTTP on the LAN), that is expected for `http://<HUB-IP>:8080`. Do not port-forward and do not put this page on the public internet to "fix" the warning. Away-from-home access should use the Helix Control app and the relay (HTTPS), not this bookmark.

---

5. Turn Auto-Lock off

If Auto-Lock is on, the iPad will go black and may require Face ID or a passcode before anyone can use Helix.

1. Open **Settings → Display & Brightness → Auto-Lock**.
2. Set Auto-Lock to **Never**.
3. Plug the iPad in and confirm it is charging. Some iPadOS versions are more willing to stay awake while on power; the wall iPad should stay on power all the time.
4. Set brightness to a fixed, readable level. Turn off auto-brightness if it makes the screen too dark at night, or leave it on if the mount sits in strong daylight — pick what is readable in that room.
5. Wait several minutes and confirm the screen stays on Helix.

If the house wants a passcode for theft protection, know that the iPad must be unlocked before Helix is usable. For a dedicated kiosk, Guided Access (next section) is the better lock, and Auto-Lock should still be Never.

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6. Guided Access (lock the iPad to Helix)

1. Open **Settings → Accessibility → Guided Access** and turn it **On**.
2. Tap **Passcode Settings** and set a Guided Access passcode. Use a unique code. Do **not** reuse the Helix kiosk PIN. Store it only in the credential vault. Optionally enable Face ID / Touch ID to end Guided Access.
3. Under Guided Access, you can also set a display auto-lock of **Never** (if shown) so it does not fight the setting in section 5.
4. Open Helix (the Home Screen web app, or Helix Control).
5. **Triple-click** the top button (or the Home button on older iPads). If the shortcut asks which feature, choose **Guided Access**.
6. If you need to disable parts of the screen (for example a worn edge that false-taps), circle those areas before starting.
7. Tap **Start**. The iPad is now locked to Helix.
8. To end Guided Access (installer only): triple-click, enter the Guided Access passcode, and tap **End**.

For a fleet of iPads, Apple Configurator or MDM can install a Web Clip and **Single App Mode**, which is stronger than Guided Access. Use that when the installer or customer already has MDM. **Beta – confirm with Helix support** Helix has not published a recommended MDM profile.

---

7. Register the iPad in Composer

Same idea as the Android wall tablet:

1. In Composer → **Tablets**, add an iPad profile (for example `Kitchen iPad`) and set the default room.
2. On the iPad, open `http://<HUB-IP>:8080/?tablet=<id>` once, or Helix menu → **This tablet** → enter the pairing code.
3. After **Send to tablets**, close and reopen the Home Screen app (or pull to refresh) so the new layout appears.
4. Reset with `?tablet=none` or **This tablet → Unregister** while unlocked.

The kiosk PIN still protects Settings, unlock/open, disarm, and long-press edits. Five wrong entries lock the pad for 5 minutes.

8. Test

1. Auto-Lock is Never. After several minutes the screen is still on.
2. Guided Access is running. The Home Screen and other apps are not reachable with a swipe.
3. After a power blip (unplug the charger for a moment, or reboot the iPad), the iPad comes back, stays on power, and can be returned to Guided Access. If it does not auto-resume Guided Access after a reboot, add a job-sheet note to start it again, or use Single App Mode. **Beta – confirm with Helix support** Test this on the actual iPad before you leave the job.
4. Rooms and tiles work. The default room is correct.
5. Notifications, if enabled, prompt only after the PIN step, and a test is recorded on the job sheet.
6. Ending Guided Access requires the Guided Access passcode.

9. Troubleshooting

Symptom	What to do
Safari cannot find `helix-ch01.local`	Use `http://<HUB-IP>:8080`. Add that URL to the Home Screen.
Screen goes dark	Auto-Lock is not Never, or the iPad is not actually on power. Check the cable and the UPS.
Triple-click opens the screenshot / Accessibility menu instead	In Settings → Accessibility → Accessibility Shortcut, include Guided Access, or set the side-button shortcut so Guided Access is the one that starts.
Family got out of Helix	Guided Access was never started, or someone knows the Guided Access passcode. Start it again and change the code if needed.
Old layout	Send to tablets, then swipe the Home Screen app closed and reopen it.
Push, microphone, or camera features fail in Safari	Some of those need HTTPS. Use the Helix Control app and the relay for away-from-home and for features that iOS will not grant to a plain HTTP page.
App shows a demo house	You are not talking to this hub. Pair again on the LAN, or check Remote access (Sheet 1).

Next: program the house in Composer (Sheet 4).

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SHEET 4 OF 6

Start Programming in Composer

Projects, rooms, Add device, scenes, menu editor, Alarm (test mode)

Safety and use

- Composer is the installer tool. It is PIN-locked and it is **not** exposed through the Helix relay. Use it on the home LAN (or an approved support path), at `http://<HUB-IP>:8090`.
- Changes save automatically in Composer. The kiosk and the tablets do not change until you press **Send to tablets**.
- Secrets (Tuya keys, camera credentials, ecobee, Rachio, Tesla, license material) live only in protected files on the hub. Composer should never be used as a place to paste camera URLs into names or notes.
- ▶ **Test** buttons send real commands when the hub is not in demo mode. Only test a device when you can see it, and only test garage, locks, heat, and sirens with the customer present.
- The **Alarm** section described at the end of this sheet is real software, but the native Helix alarm is **not released** for live monitoring. Leave it in test / mock mode. Do not promise police dispatch.

What this sheet covers

How to create the project and rooms, add devices (Add device, Tuya/Smart Life, Shelly, mini-split dongle, thermostats, cameras assigned to rooms), build scenes, use the menu editor and publish to screens, and what is in the Alarm section.

Installing the physical devices (wiring a switch, mounting a camera, hooking up irrigation) is **Sheet 5**. Do that in parallel with the matching Composer steps below.

1. Open Composer and follow the Setup guide

1. On your laptop (Chrome recommended), open `http://<HUB-IP>:8090` or `http://helix-ch01.local:8090`.
2. Unlock with the kiosk PIN.
3. Open **Projects**. Create one project for this house, or start from a template. A template keeps rooms, the device list, scenes, tiles, and yard schedules, and leaves out the client's name, address, device IDs, and passwords.
4. Open the **Setup guide**. It is the checklist for the job, in order: Home details → Rooms → Find & add devices → Put each device in a room → Test → Scenes → Goodnight → Tablets → Send. Each row links to its section and shows status (for example, "3 device(s) have no room yet"). Follow it top to bottom.
5. Export a backup (a `.helix.json` file) after every visit. Backups do not contain secrets. After you import a project onto a new hub, you must enter cloud keys and device credentials again on that hub.

2. Home details

1. Open **Home details**.
2. Enter the client name and address, and the **Home ZIP** code.
3. Press **Look up** to geocode it. The resolved place and location drive Weather, NWS alerts, sunrise/sunset scene triggers, dusk-to-dawn lights, and yard rain-skip.
4. Use Notes for site facts (where the rack is, who to call). Do **not** put gate codes, alarm codes, or passwords in Notes.

3. Create rooms

1. Open **Rooms**.
2. Add every room the family will tap on a tablet. For each room set: - a clear name (`Living Room`, `Kitchen`, `Front Porch`) - an icon - the order (up/down). This is the default home-screen order.
3. Optional: add a background photo. Keep visibility low (default is 35%) and a little blur so tiles stay readable.
4. Removing a room un-assigns its devices. Put devices in a new room first if you need to delete one.

You will also assign devices to rooms as you add them. Cameras are no exception: a camera is shown on a room screen when that camera's device is assigned to the room (`devices[].roomId` in the project / layout). Do not assume a doorbell entry alone will put a camera on the Front Porch screen.

4. Add devices

Beta – steps may change Zigbee, Z-Wave, Shelly, Hue and Kasa device types are not verified in the current Composer. Supported and tested brands today are Tuya, Lutron, WiiM, Sonos and cameras. Steps for the other brands below may change. The device scanner fills an intake list; devices are still added by hand.

There are several ways to get hardware into the project. Use the one that matches the device.

4.1 Add device wizard (Tuya / Treatlife, Zigbee, Matter)

Coming soon Adding new Tuya / Smart Life cloud devices is **Coming soon** (the Tuya cloud service is paused). Devices already working on the local network are not affected. Ask Helix support before promising Tuya devices on a new job.

In Composer, open **Add device**.

Tuya / Smart Life / Treatlife (EZ or AP mode) — pairs a Wi-Fi switch or similar without standing in the Smart Life app for every device:

1. Choose the house **2.4 GHz** Wi-Fi network. The wizard can fill the SSID from this laptop or from the SSID saved for the project. The password stays in the form and in the start request; it is not written into the project file.
2. Choose **EZ** (device is in fast-blink pairing) or **AP** (device has opened a setup Wi-Fi such as `SmartLife-XXXX`).
3. For a live house, confirm you mean to use a real device (the wizard asks you to type a confirmation phrase). Do not do this against the wrong house Wi-Fi.
4. Put the switch into pairing mode, then start pairing. Keep it powered. The wizard waits until the device joins, then lets you name it and pick a room.
5. If EZ mode times out, start over in AP mode.

Pair every Tuya/Smart Life device that this hub will own to the **Helix Tuya account linked to this kiosk**. Devices on a different Smart Life account will not appear.

Zigbee — pairs straight to the hub. No cloud account and no Wi-Fi password:

1. In Add device, choose **Pair Zigbee device**.
2. This needs the hub's USB Zigbee radio and Zigbee2MQTT running. If the wizard says the Zigbee bridge is not running, stop. **Beta – confirm with Helix support** Whether your hub includes the USB Zigbee radio depends on how it was ordered. Ask Helix support.
3. Reset the device now (bulbs: off/on 5–6 times; switches and plugs: hold the button about 5 seconds until the LED blinks).
4. The hub opens the network (permit-join, about 120 seconds). When the device appears, name it and assign a room.
5. Use **Pair more** if you have another device ready.

Matter — choose **Add Matter device**, then scan the Matter QR code or type the 11-digit setup code. Wi-Fi Matter devices join over Bluetooth and then the house Wi-Fi. Thread devices also need a Thread border router. **Beta – confirm with Helix support** Helix has not named a recommended Thread border router.

4.2 Find Shelly devices

In **Lights & devices** (or the Shelly finder on the Setup guide):

1. Use **Find Shelly devices**. The hub discovers Shelly Gen1–Gen4 relays, dimmers, plugs, covers, and sensors by mDNS.
2. If a Shelly is on another VLAN or mDNS is blocked, type its IP.
3. Control is local (RPC). If the Shelly has a password, add that password on the hub, not in a project note.
4. Name the device, set the type, assign a room, and use ▶ **Test**.

4.3 Load Tuya lights and other cloud-already-paired devices

If the devices are already on the Helix Tuya account:

1. Set the kiosk address if Composer asks for it (`http://<HUB-IP>:8080`).
2. Use **Load Tuya lights** / **Find Tuya devices**. Composer reads the list through the kiosk. It does not see the cloud keys.
3. Place each device in a room. Set dimmable or not. Pick a fixture icon (bulb, pendant, chandelier, recessed, sconce, strip, lamp, fan, outlet) or add a fixture photo.
4. Optional: dusk-to-dawn per light (needs the home location from Home details).

4.4 LAN scan

Scan LAN (enter the customer's subnet, for example `<SUBNET>`) can find WiiM/LinkPlay, Tuya devices on the LAN, a Lutron Caséta bridge, and RTSP cameras. **Discover ONVIF cameras** is also available. Run this while your laptop is on the customer's network.

Beta – confirm with Helix support Lutron Caséta may be discovered, but control support is not confirmed. Do not promise Caséta control.

4.5 Thermostats and mini-splits

In **Heating & cooling**:

1. Add a **Thermostat** or a **Mini-split** card, name it, and assign a room.

2. Pick the brand. Supported for real control today: - Thermostats: **ecobee** (credentials in the hub secrets file; use **Find ecobee** / **List ecobee**), and **Tuya / Smart Life** thermostats. - Mini-splits: **Tuya / Smart Life AC** for units that already appear in Smart Life. Other brands may be listed as **beta** (for example Midea-protocol units such as some Senville and Pioneer, Gree / Cooper & Hunter, Daikin BRP adapters) or **not connected yet** (catalog only).
3. **ESPHome dongle (local)** — for many Midea-based indoor units you can replace the stock USB Wi-Fi stick with a local dongle (for example a pre-flashed SLWF-01pro):
4. Flash or buy the dongle with ESPHome (midea climate + web_server).
5. Join it to the house 2.4 GHz Wi-Fi and give it a DHCP reservation.
6. Plug it into the indoor unit's USB port **instead of** the stock stick.
7. In Composer, pick **ESPHome dongle (local)**, then **Scan** (mDNS) or type its IP, and **Test**. This path is marked **beta** in Composer (untested on some units). Power, mode, setpoint, fan speed, and room temperature are what the driver exposes.
8. Brands marked **not connected yet** (Nest, Honeywell Home, Sensi, and others in the list) can be saved and shown, but they cannot be controlled until a driver exists. Mark those `[planned]` on the job sheet and do not sell them as working.
9. Set units to °F or °C to match the house.

4.6 Cameras and the doorbell, assigned to rooms

1. Add each camera in **Lights & devices** or the cameras section. Use a kiosk camera ID that will match the hub's camera list.
2. Assign `roomId` (the room dropdown) so the camera appears on that room's screen. A Front Door camera that should show on the Front Porch screen must be assigned to Front Porch.
3. You can also pin a camera to the All Rooms front page, or long-press the camera on a tablet (PIN required) to choose rooms.
4. Camera credentials are saved server-side (**Save credentials**). The UI should only show masked placeholders. Never paste a live stream URL into a name or a note.
5. For the doorbell: in **Doorbell & intercom**, add the doorbell and choose its camera. **Test ring** should pop up on every tablet. The doorbell event and the room camera tile are related but not the same setting — still set the camera's room.

4.7 After any add: name, room, test

For every device:

1. Give it the name the family will recognize (`Kitchen island`, not `switch_3`).
2. Set the room, and "also show in" if it should appear in more than one room.
3. Press ▶ **Test**. Confirm the real device reacts and the live state (on, brightness, offline) is right before you leave that room.
4. Fix any device that still has "no room yet" in the Setup guide.

---

5. Scenes and automations

1. Open **Scenes**. You can start from a preset (Goodnight, Movie, Away, Good Morning). Presets prefill from the project's devices.
2. Steps can include: light on/off/level, shade, IR button or IR macro, thermostat, lock/close, matrix route, security arm, and wait. Scenes can **lock / close**, but they must not unlock or open doors.

3. Add triggers as needed (time of day, sunrise/sunset, or the options shown for that scene). Sunrise and dusk-to-dawn need Home details / ZIP.
4. Use **Goodnight** as its own section too: it pre-checks lights, locks, garages, shades, and TVs, then **Secure the house** can turn lights off (or to a night level), lock, close garages, optionally close shades, turn TVs off, and optionally arm. Only enable arming if the alarm path for this job is actually in use and approved.
5. Test each scene from Composer and from a tablet, standing where you can see the result.

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6. Menu editor and publish to screens

Composer includes a **Menu editor** (under Rooms & screens) so you can arrange what the family sees on the kiosk.

1. Open **Menu editor**.
2. Arrange tiles (type, label, icon, size, order). This is a draft until you publish. The draft is saved with the project.
3. Preview the layout.
4. When it looks right, press **Publish to screens**. This sends the menu to the hub. Tablets pick it up within a few seconds (they listen for a layout update, and otherwise poll).
5. If you need to go back, use **Undo** on the published menu (PIN required). The hub keeps a short history of published menus.
6. Then also use **Send to tablets** (next section) when rooms, devices, or scenes have changed. Publish and Send do different jobs: one publishes the menu layout, the other pushes the project layout (rooms, devices, scenes, tablet profiles).

Beta – confirm with Helix support The Menu editor may not be on your hub's Composer build. If a hub's Composer has no Menu editor, use **Home screen**, **Kiosk tabs**, and **Tablets** to control what appears, then Send to tablets.

---

7. Tablets, home screen, and Send to tablets

1. In **Tablets**, add each wall panel and iPad (Sheets 2 and 3). Set the default room and any per-tablet tiles.
2. In **Home screen** / **Kiosk tabs** / **Tiles**, choose what appears on All Rooms and in the Helix menu.
3. Open **Send to tablets**. Read any warnings (devices with no room, camera IDs that still need to be added on the kiosk).
4. Press **Send to tablets**. This writes the layout on the hub. Tablets update in a few seconds; if they do not, refresh or reopen the home-screen app.
5. Optional: download a copy of the generated layout for the job folder (it still must not include secrets).

---

8. Alarm section (test mode — not released)

Beta – steps may change The Helix alarm is not released for live use. Nothing in this section is a monitored alarm.

Composer has an **Alarm** section for a full Helix alarm: Away, Home (Stay), and Night, entry and exit delays, PIN disarm, a duress code, zones, sirens, and a hook for a future professional monitoring service.

Status you must honor: this work was built and tested in a staging / mock environment. It has **not** been released to live customer hubs as a monitored alarm. Do not enable production monitoring. Do not tell the customer that police will be dispatched.

If the section is present on this hub and you are only preparing a future job:

1. Add **sensor zones**: door, window, motion, glass-break, smoke/CO, water. Pick the driver (Zigbee, Shelly, or Tuya), the device, and whether the zone has its own entry delay. Smoke, CO, and water are 24-hour zones. Open zones are bypassed when arming.
2. Set exit delay and entry delay (seconds). Night can be set to instant (no entry delay).
3. Add **user codes** (4–8 digits) and an optional duress code. Codes are sent to the kiosk and stored hashed there. They are **not** saved in the Composer project. Saving replaces the existing list. Until codes are added, the kiosk PIN disarms. Never put codes in Notes or in a screenshot.
4. Add **sirens** (Zigbee, Shelly, or Tuya). Leave **Live** off unless you are doing a planned, in-person test. A siren test is short (a few seconds) and stays in mock mode unless the "allow the test button to sound live sirens" box is ticked.
5. Leave professional monitoring **off**. Monitoring is not part of a normal install today.
6. Push the alarm configuration to the kiosk only on a test system, or when Helix has approved a live trial with the customer present.

Older Composer builds also describe a **Tuya / Smart Life alarm hub** (category `mal`) with Away / Stay and PIN disarm. If that is what this hub shows, document the path you actually used, and still do not promise professional monitoring.

---

9. Other Composer sections you will hit early

These have their own install steps in Sheet 5. In Composer, you will also use:

- **Audio** — WiiM and Sonos by IP or from the LAN scan, assigned to rooms.
- **TV & AV remotes (IR)** — IR blasters (often Tuya/Smart Life) and macros.
- **Locks & garage** — Tuya locks (enable remote unlock in Smart Life); garage via Tuya, and other drivers marked beta (Genie / Aladdin Connect, Meross, Shelly, ratgdo / Konnected, generic relay + sensor). Unlock / Open always needs the kiosk PIN. Every garage action asks for confirmation.
- **Shades** — Tuya curtain/blind motors or Shelly covers.
- **Energy** — Tuya meters / CT clamps marked Solar, Grid, or Load.
- **My Yard** — sprinkler zones (Tuya valves or Rachio), soil sensors, pond pump, outdoor dusk-to-dawn lights, gates. Rachio's API key goes in the hub secrets file, never in Composer.
- **Outdoor** — infrared patio heaters (with a safety auto-off) and pond pumps (also in My Yard).

---

10. Commissioning checklist (short)

1. Every device has a room and a clear name.
2. ▶ Test passed in the room for lights, shades, climate, and audio.
3. Cameras appear on the rooms they should, including Front Porch / Front Door if used.
4. Scenes and Goodnight were tested in person.
5. Each tablet is registered and opens on the right room.
6. Menu published (if this Composer has the editor) and **Send to tablets** succeeded.
7. Secrets are on the hub only. No stream URLs or PINs in notes.
8. Alarm remains in test / mock mode unless Helix has approved a live trial.
9. Export a `.helix.json` backup to the job folder.

Next: install and wire the physical devices (Sheet 5), using the matching Composer steps in this sheet as you go.

HELIX INTEGRATION
Installer instruction sheets · November 2026
Wentzville, Missouri · helixintegrate.com

SHEET 5 OF 6

Device Install: Lights through Irrigation

Switches, fans, plugs, shades, climate, garage, locks, alarm, cameras, AV, pond, energy, irrigation

Safety and use

This sheet walks through installing and adding the devices in a typical Helix job, from light switches to irrigation. It is for trained installers. It is **not** a license to do electrical, HVAC, locksmith, fire-alarm, or irrigation work without the credentials your state and the job require.

Before any line-voltage work:

1. Turn the **circuit breaker** off. Lock it out if you have a lockout device.
2. Verify the circuit is dead with a proper tester, including the tester's self-check.
3. Identify line, load, travelers, neutral, and ground before you disconnect anything. Photograph the existing bundle (no labels that include secrets).
4. Use a **licensed electrician** wherever the work is in a panel, a new circuit, a 3-way or 4-way that you are not sure of, a heater, a pump, or anything the AHJ or the contract requires.
5. Use a **licensed HVAC** technician for thermostat wiring on a furnace, air handler, or mini-split refrigerant / communication connections when those are in scope.
6. Pond pumps and outdoor water features need **GFCI** protection and bonding (NEC 680 in the U.S.). Irrigation valves are usually low-voltage (24 VAC) but their transformer and any line-voltage pump still need correct protection.
7. After wiring, restore power only when the box is closed or safely staged, then test.
8. Do not send a live garage, lock, heater, siren, or pump command unless you can see the equipment and the customer has said to test it.

Placeholders such as `<HUB-IP>` are used on purpose. Never copy RTSP URLs, PINs, tokens, or real device IDs into these sheets, photos, or tickets.

Items marked **[planned]** are listed in Composer but are not connected in the current code. Items marked **Beta – confirm with Helix support** need a Helix or job decision.

General Composer add, test, and Send-to-tablets steps are in **Sheet 4**. Power and UPS for the hub and PoE switch are in **Sheet 1**.

How to use this sheet

Beta – steps may change Steps that use Zigbee, Z-Wave, Shelly, Hue or Kasa devices are not yet verified on hardware and may change.

Coming soon Adding new Tuya / Smart Life cloud devices is **Coming soon**. Where this sheet mentions Tuya, ask Helix support first.

Each section follows the same order:

1. What you need
2. Safety
3. Wiring and mounting
4. Adding it in Composer
5. Testing
6. Troubleshooting

Do the physical work first (or on the bench), then add the device in Composer, then ▶ Test while you can still see it.

5.1 Light switches and dimmers (single-pole and 3-way)

Helix controls lights through **Shelly** relays and dimmers (local), **Tuya / Smart Life / Treatlife** Wi-Fi switches and dimmers, and **Zigbee** switches, dimmers, and bulbs paired to the hub radio when that radio is installed.

What you need

- The approved switch, dimmer, or in-box relay for this job (Shelly, Tuya/Treatlife, or Zigbee). **Beta – confirm with Helix support** Helix has not published preferred switch or dimmer models. Ask Helix support before you buy.
- A neutral in the box for most smart relays and dimmers. Many older switch loops have no neutral — stop and use a licensed electrician, a different module, or a different location.
- House 2.4 GHz Wi-Fi for Wi-Fi devices, or a working hub Zigbee radio for Zigbee devices.
- Wire nuts, pigtails, and a tester. For 3-way, time to map travelers.

Safety

Treat every switch box as live until you have turned the breaker off and proved it dead. 3-way and 4-way loops can bring a hot in from more than one box — test every conductor. If a dimmer will control LEDs, confirm the module is rated for that LED load and that the bulbs are on the module's compatible list. Do not put a standard dimmer on a fan motor (see 5.2).

Wiring and mounting — single-pole

Typical U.S. colors (always verify; colors are not guaranteed):

Conductor	Common color	Goes to
Line (hot in)	Black	Line / L on the module or switch
Load (to the light)	Black (or red in some boxes)	Load / O / output
Neutral	White	N, with the other neutrals
Ground	Bare or green	Ground screw / ground terminal

1. Breaker off. Confirm dead.
2. Note which wire is line (hot with the breaker on — identify it **before** you start, then power down again) and which is load.

3. Wire the smart switch or in-box relay per the manufacturer's diagram: line, load, neutral, ground. For a relay that stays in the box behind a mechanical switch, use the manufacturer's **SW** (switch input) so the paddle still works if the network is down.
4. Do not share a neutral from a different circuit.
5. Fold the module in the box without pinching, restore the cover, then restore the breaker.

Wiring and mounting — 3-way (and 4-way)

A 3-way circuit has two switches controlling one load. Two **traveler** wires run between the switches. Line may be in one box and the load in the other.

1. Breaker off. Identify, in each box: line or load, the two travelers, neutral (if present), and ground. Label them.
2. Prefer a module that officially supports 3-way (for example a Shelly with a switch input on one end, and a standard 3-way or a detached switch on the other, per that product's diagram). Follow **that** diagram, not a generic guess.
3. Typical pattern (confirm on the sheet that came with the module): the smart relay sits in the box that has line **or** the box that has the load; travelers or a single switch-leg go to the module's switch input; the far 3-way is rewired as a simple switch, or replaced with a compatible companion. **Wrong traveler wiring is a common cause of a light that is stuck on or a switch that does nothing.**
4. If the box has no neutral, or you find a 4-way in the middle, stop and get a licensed electrician or a module rated for that layout.
5. Close the boxes and restore power only when both ends are finished.

Adding it in Composer

1. **Shelly:** Composer → Find Shelly devices (or type the IP) → name, room, dimmable or not → ▶ Test (Sheet 4).
2. **Tuya / Treatlife:** Add device (EZ or AP) or Load Tuya lights if it is already on the Helix account → name, room, icon → ▶ Test.
3. **Zigbee:** Add device → Pair Zigbee device → reset the switch or bulb → name and room.
4. Set dusk-to-dawn only after Home ZIP is set, and only on outdoor or hall lights that should run that way.

Testing

1. Paddle or test button at the wall works (local).
2. Composer ▶ Test turns the light on, then off, and shows live state.
3. The room tile on the kiosk works, including dimming if it is a dimmer.
4. After a power blip, the module comes back to the agreed power-on default (usually **off** for most living-area lights; confirm with the customer).
5. For 3-way: both locations turn the light on and off, and the kiosk still shows the correct state.

Troubleshooting

Symptom	What to do
No power at the light	Breaker, line/load swapped, or a traveler still open. Power down and re-map the box.
Device never appears	2.4 GHz Wi-Fi, correct Tuya account, or Zigbee permit-join window expired. For Shelly, try the IP.
Light flickers or buzzes	Incompatible dimmer/LED combo, or a dimmer on a non-dimmable load.

Symptom	What to do
3-way only works from one end	Travelers or SW input are wrong. Rework from the manufacturer's 3-way diagram.
State is backwards on the kiosk	Invert / "detached" switch setting on a Shelly, or the wrong datapoint on a Tuya device.

5.2 Fans

Ceiling fans are not the same as lights. A lighting dimmer can damage a fan motor.

What you need

A module **rated for a fan** (or a fan/light canopy module with separate outputs), or a Smart Life fan controller that Helix can see as a Tuya device. **Beta – confirm with Helix support** Helix has not approved a fan controller model. A dedicated Helix "fan driver" is not a separate Composer type today — fans are added as a device (often a switch or a Tuya device) and can use the **fan** fixture icon. Treat multi-speed control as **Beta – confirm with Helix support**: only on/off is assumed.

Safety

Breaker off. Support the fan so it cannot fall. Do not put a lighting dimmer on the motor lead. If the fan has a light kit, switch or dim the light on a separate output.

Wiring and mounting

1. Identify the motor lead, the light-kit lead (if any), line, neutral, and ground in the canopy or wall box.
2. Wire a fan-rated controller per its diagram: motor to the fan output, light kit to the light output, line and neutral as marked.
3. Set any dip switches or app settings for a ceiling fan (not a lamp).
4. Reinstall the canopy so the module is not stressed on the downrod.

Adding it in Composer

Add it like a light (Shelly, Tuya, or Zigbee). Name it clearly (`Living Room fan`). Choose the fan icon. If the device only exposes on/off, do not label it as a speed control. If Smart Life shows speeds and they appear as a Tuya device, map and Test those functions, and write down what the kiosk can actually do.

Testing

Local pull chain or wall control still makes sense with the smart module (or is set to a known position). Kiosk on/off works. The light kit, if separate, is a second device or a second channel. Listen for noise or stalling at each speed you claim to support.

Troubleshooting

If the fan hums or stalls, you likely used a dimmer or the wrong load type. If only the light works, the motor lead is on the wrong output.

5.3 Plugs and outlet modules

What you need

A Tuya, Shelly, or Zigbee plug or in-wall outlet. For outdoor or wet locations, a weather-rated enclosure or an outdoor-rated smart plug, on GFCI as required.

Safety

Do not exceed the plug's amp rating. Do not use a cheap indoor plug outdoors. High-draw heaters, dryers, and some tools should not be on a general-purpose smart plug — use a properly rated circuit and device, or do not automate them.

Wiring and mounting

Plug-in modules: just plug them into a grounded receptacle, then plug the lamp or device into the module. In-wall outlets: breaker off, line/neutral/ground (and load if half-switched) per the manufacturer, same caution as section 5.1.

Adding it in Composer

Find Shelly, Add device, or Load Tuya lights / devices. Type **outlet**. Assign a room. Optional dusk-to-dawn for porch plugs that should follow sunset.

Testing

▶ Test, then the real load (lamp, transformer, etc.). Confirm the kiosk state matches. Confirm a power-on default that is safe (usually off).

Troubleshooting

If the plug pairs but the load is dead, the load is bad or over current-protection has tripped. If it drops off Wi-Fi, it may be too far from a 2.4 GHz AP or sitting behind a metal appliance.

5.4 Shades and blinds

Helix supports **Tuya curtain/blind motors** (Composer category for curtain/blinds) and **Shelly cover** controllers. Each room with shades gets a Shades tile: Open / Stop / Close and a position slider.

What you need

The motor or a Shelly cover + a compatible motor, mounting hardware, and (for line-voltage motors) a licensed electrician as required. Charge or connect power as the product requires.

Safety

Keep heads and fingers clear while the shade first runs. Set travel limits **before** you leave. A shade that drives past its limit can damage the tube, the fabric, or the window.

Wiring and mounting

1. Mount the brackets and tube square, per the shade vendor.

2. For a Shelly cover: breaker off, then line, neutral, and the two motor directions to the cover outputs, following the Shelly cover diagram. Set the module to cover/roller mode, not a generic relay.
3. For battery or plug-in Tuya motors: mount, power, and pair to the Helix Tuya account.
4. Set open and close limits in the vendor app or on the motor head first, then add the shade in Composer.

Adding it in Composer

Open **Shades**, add the Tuya motor or the Shelly cover, assign the room, and Send to tablets.

Testing

Open, Stop, and Close from Composer and from the room tile. Confirm the slider matches the real position. Confirm the shade stops on the limits and does not strain. If the direction is reversed, use the product invert/swap setting, then test again.

Troubleshooting

A shade that “opens” when you press Close has the motor leads or direction inverted. A Shelly that only jogs may still be in relay mode instead of cover mode, or the limits were never set.

5.5 Thermostats and mini-splits

What you need

- A supported thermostat: **ecobee** or a **Tuya / Smart Life** thermostat. Other brands in the Composer list (Nest, Honeywell Home, Sensi, and similar) are `[planned]` / not connected — do not install them expecting Helix control.
- A supported mini-split path: **Tuya / Smart Life AC**, or (beta) Midea-protocol units, Gree / Cooper & Hunter, some Daikin BRP adapters, or an **ESPHome dongle** in place of the stock USB stick (Sheet 4).
- For a central thermostat: the existing HVAC control cable (often R, C, Y, G, W / O/B). Many smart thermostats need a **C (common)** wire.

Safety

A wrong thermostat wire can short a transformer or damage a control board. If you are not trained on that equipment, stop and use a licensed HVAC technician. On a mini-split, do not open refrigerant connections. Swapping a USB Wi-Fi stick is a dry, indoor-unit electronics step — power the indoor unit down first and follow the brand’s stick manual. Heaters and heat strips can be dangerous; test setpoints while you are present.

Wiring and mounting — wall thermostat

1. Power down the HVAC equipment (furnace/air-handler switch and/or breaker).
2. Photograph the existing terminal labels. Label each wire.
3. If there is no C wire and the new thermostat needs one, run a new cable or use only a vendor-approved adapter. Do not steal a conductor that is still needed for a stage of heat or cool.
4. Mount the new thermostat, connect the terminals per the vendor and the equipment (conventional vs heat pump).
5. Restore power, complete the vendor setup, then add it in Composer.

Wiring and mounting — mini-split dongle

1. Power the indoor unit off.
2. Remove the stock USB Wi-Fi stick (if any) and fit the ESPHome (or brand) dongle in that USB port only.
3. Join the dongle to 2.4 GHz Wi-Fi, set a DHCP reservation, then power the unit back on.
4. Do not leave both the stock cloud stick and the dongle in service on the same unit.

Adding it in Composer

Heating & cooling → add Thermostat or Mini-split → brand and driver → room and units (°F/°C) → Find / Scan / type ID or IP → Test. For ecobee, enter the API credentials on the hub and use List ecobee. For ESPHome, Scan or type the IP (Sheet 4).

Testing

Mode and setpoint from Composer and from the kiosk Comfort tile change the real unit. Room temperature reads a believable number. After a power blip, the unit returns to a safe state. Do not leave a heat or AC test running unattended.

Troubleshooting

If the HVAC does nothing, you may be missing C, or Y/W/O/B is on the wrong terminal. If a mini-split is “beta” and Scan finds nothing, confirm the dongle’s IP and that you picked the matching driver (Midea vs Gree vs Tuya vs ESPHome). Brands marked “not connected yet” will not control, even if the card looks complete.

5.6 Garage controller

Composer supports **Tuya / Smart Life** garage openers (real control when linked). Other drivers exist as **beta** (untested on some units): Genie / Aladdin Connect, Meross, Shelly plus a reed switch, ratgdo / Konnected GDO blaQ (ESPHome), and a generic relay plus a door sensor.

What you need

The opener interface the job specified, a door-position sensor (unless the unit has one built in), and a safe place to mount a relay or module **in parallel with the wall button**, never in a way that bypasses obstruction sensors.

Safety

Garage doors can kill. Never disable safety eyes or the door’s obstruction test. Stay in the garage for every live open/close test. Every garage action on the kiosk already asks for confirmation; Unlock/Open also needs the kiosk PIN. Do not add a scene that opens a garage. Remote app control still requires Face ID confirm (Sheet 1).

Wiring and mounting

1. Unplug the opener (and lock out if you can) before landing wires on the wall-button terminals.
2. Connect a dry-contact relay (Shelly, ratgdo, or the opener’s own smart unit) **across the wall-button terminals**, following that product’s garage-door diagram — normally a momentary contact, not a maintained on/off (a maintained contact can run the motor without stop).
3. Mount a reed switch or use the module’s arm/tilt sensor so Helix can see open vs closed.
4. Route wiring clear of the chain or belt. Restore power.

Adding it in Composer

Locks & garage → **Add garage door** → pick the driver. For Tuya: Find Tuya devices, then read datapoints if the door state and the trigger need mapping (Auto works on most). For Genie, Meross, or ESPHome: follow the on-screen sign-in or key steps; secrets are stored on the hub only. Set the room and the left-open alert (minutes).

Testing

With the path clear: confirm, enter the PIN, and open or close once. Confirm the kiosk shows the true state (a reed that is mounted backwards will lie). Confirm the obstruction sensors still reverse the door. Confirm a left-open alert if you set one (you can use a short time for the test, then set it back).

Troubleshooting

If the door starts and immediately stops, the contact may be held closed (use momentary / a pulse). If the state is wrong, invert the sensor. If a beta driver fails, fall back only to a path Helix has approved for that house — do not cobble a new cloud account on site without a record in the job file.

5.7 Locks

Helix controls **Tuya / Smart Life Wi-Fi locks** when they are on the Helix Tuya account. In Smart Life, enable **remote / password-free unlock** or the hub cannot unlock. Other lock brands are not a general Helix lock driver today unless they appear as a supported Tuya lock.

What you need

The lock, the correct door prep (bore and backset), fresh batteries or the specified power, and the manufacturer's strike and jigs. Use a locksmith when the door, frame, or fire rating requires one.

Safety

Do not leave a house unlockable. Keep a mechanical key path that works. Test fail-secure vs fail-safe against the door's fire and egress requirements. Unlock on the kiosk always needs the kiosk PIN (five wrong tries lock the pad out for five minutes). Scenes may lock, not unlock.

Wiring and mounting

Follow the lock manufacturer's mechanical and wiring instructions (strike alignment, interior assembly, any doorbell-camera that shares the same device). For a Wi-Fi lock, place it where 2.4 GHz is strong; metal doors and exterior boxes can block signal.

Adding it in Composer

Locks & garage → **Add lock** → Find Tuya devices → name, room, left-unlocked alert. Confirm remote unlock is enabled in Smart Life.

Testing

Lock from the kiosk (one tap). Unlock with the PIN. Confirm the mechanical key and the interior thumbturn still work. Confirm the door latches without slamming. Confirm the left-unlocked banner if you set a short test threshold, then set it back.

Troubleshooting

If lock works and unlock does not, remote unlock is probably off in Smart Life, or the device is on the wrong Tuya account. If the bolt binds, fix the door and strike; do not keep retrying a stalling motor.

5.8 Alarm sensors and sirens (Wi-Fi / Zigbee)

Helix can take **Zigbee, Shelly, and Tuya** door, window, motion, glass-break, smoke/CO, and water sensors, and Zigbee, Shelly, or Tuya sirens. That software exists in Composer and in the kiosk alarm engine.

It is not released as a live, professionally monitored system. Leave sirens not-Live, leave professional monitoring off, and use mock / short tests only, unless Helix has approved a specific trial and the customer is present. Do not replace a listed fire-alarm system with these sensors. Smoke and CO devices used for life safety must meet code; a hobby sensor in the Alarm section is not a fire-system sign-off.

What you need

Sensors and a siren on the approved list for the path you will use (Zigbee radio on the hub, Shelly on the LAN, or Tuya on the Helix account). **Beta – confirm with Helix support** Helix has not published a preferred sensor kit. A UPS on the hub and, for Wi-Fi sensors, on the router and AP (Sheet 1).

Safety

Mount door contacts so a slightly racked door still reports open. Do not drill a fire-rated door or frame in a way that voids the rating. Siren tests are loud — warn everyone in the house and keep the test to a few seconds.

Wiring and mounting

1. **Battery Zigbee / Tuya contacts and PIRs:** mount on the dry, indoor side; align the magnet as the vendor marks; pull any plastic battery tab; then pair.
2. **Hardwired contacts into a Shelly or input module:** power down, land the contact on the input, set the module input to the correct type, and do not mix voltages.
3. **Siren:** follow the vendor. A Shelly that drives a siren must be rated for that load, or must switch a proper siren power supply. Keep wiring neat and serviceable.

Adding it in Composer

Alarm section → add a zone per sensor (type, driver, device, entry delay, which arm modes). Add sirens but leave **Live** off. Save user codes only to the kiosk (Sheet 4). Push to the kiosk only on a test system or an approved trial.

Testing (test mode)

1. Watch the zone go open and close on the Alarm screen as you open the door or window.
2. If you have approval to arm in test mode, arm, then open a zone and confirm the entry delay and the kiosk prompt. Disarm with a normal code. Do not use a live siren or live monitoring.
3. A **Test sirens (3 s)** run stays mock unless the live-test box is ticked. Default to mock.

Troubleshooting

A zone that stays open may have a misaligned magnet or a reversed input. A Zigbee device that will not pair needs a reset and a fresh permit-join, and may be too far from the hub radio (add a mains-powered Zigbee router device if Helix has approved one). If Composer has no Alarm section, this hub build does not include the native alarm — do not improvise.

5.9 Cameras and doorbell

Cameras are assigned to rooms in Composer through each camera's **room** (`devices[].roomId`). The doorbell is configured in **Doorbell & intercom** and still needs its camera assigned to the room where it should appear (for example Front Porch).

What you need

The camera or doorbell, PoE or the vendor's power supply, a reserved IP, and a mount that covers the area you care about. Prefer PoE cameras on the UPS-backed switch (Sheet 1). **Beta – confirm with Helix support** Helix has not published an approved camera or doorbell list. A video path that needs no vendor login is not confirmed.

Safety

Use a ladder safely. Keep exterior penetrations sealed and above water splash. Do not point a camera into a neighbor's private space in a way the customer has not accepted. Never paste live stream URLs into Composer names, tickets, or these sheets. The NVR, if the job has one, is a separate system — do not re-adopt or reset a customer's NVR or network video gear unless the job and Helix say to.

Wiring and mounting

1. Run Ethernet (or the vendor's required cable) to the mount. For PoE, patch to the UPS-backed PoE switch and reserve the IP.
2. Mount solidly, set angle and height, and leave a service loop.
3. On first power, give the camera a fixed/reserved address. Do not leave it on a random DHCP lease.
4. Complete only the minimum vendor setup needed for Helix to receive a stream or a ring event. Prefer the Helix-documented RTSP or ONVIF path when it is available so the customer is not forced through a third-party app for daily use. **Beta – confirm with Helix support** The doorbell setup path for your firmware is not confirmed. Ask Helix support.

Adding it in Composer

1. Discover with ONVIF / LAN scan, or add the camera and set its kiosk camera ID.
2. Save credentials on the hub (masked in the UI).
3. Assign the **room**. Pin to the front page only if the family wants it there.
4. For a doorbell: Doorbell & intercom → choose that camera → Test ring. Confirm tablets show the popup and (if enabled) phones get a ring notification.
5. Send to tablets and confirm the Front Porch (or other) room screen shows the camera tile.

Testing

The room tile opens the camera. Full-screen view returns to the room you started from when you close it. Night image is acceptable. A doorbell ring shows the popup on every registered tablet. Do not print or screenshot a URL that includes a password.

Troubleshooting

A black tile is often the wrong ID, a bad credential, or a camera IP that changed. A doorbell that rings in a vendor app but not on Helix is usually a hook or camera-assignment issue, not the room photo by itself. If `.local` discovery fails, use the reserved IP.

5.10 Audio, TV, and IR

Helix controls **WiiM** and **Sonos** players locally, **Tuya / Smart Life IR blasters** (and macros) for TVs and AV, and an optional **HDMI matrix** (TCP port 23, reserved IP). Some rooms also use network, CEC, or RS-232 control; Composer can note when an IR blaster is still recommended.

What you need

Players on the house LAN (reserved IPs), one IR blaster per TV location that needs IR, line of sight or a hidden IR emitter on the device, and (if used) the HDMI matrix manual for input/output names. Set up WiiM streaming presets in the WiiM Home app first; the kiosk only triggers them.

Safety

Use surge-protected, UPS-backed power for racks when you can. Do not look into IR emitters at close range for long periods. Keep speaker wiring clear of line voltage.

Wiring and mounting

1. Place WiiM / Sonos on Ethernet when you can, otherwise on reliable Wi-Fi, with a DHCP reservation.
2. Mount the IR blaster with a clear path to the TV or the cabinet IR window, or stick the emitter on the IR window.
3. Pair the blaster to the Helix Tuya account (same rule as other Tuya devices).
4. For a matrix: Ethernet to the reserved address, then label inputs and outputs to match Composer.

Adding it in Composer

- **Audio:** add WiiM or Sonos by IP or LAN scan, assign a room.
- **TV & AV remotes (IR):** add the blaster, learn or pick the buttons and macros (power-off should be a discrete off when the remote supports it — Goodnight depends on that).
- **What to watch / matrix:** name the routes the family will use.
- Send to tablets. The room tile shows Listen and Watch when sources exist.

Testing

Play, pause, volume, and now-playing on each room's speaker. TV power, input, and volume from the Watch tile and from a scene. Matrix route if installed. A Goodnight or Movie scene that should power a TV off actually does.

Troubleshooting

WiiM is proxied by the hub because it uses a self-signed certificate — if control fails, check the reserved IP and that the hub can reach it. An IR command that works only at two inches needs a better emitter placement. If the TV toggles on when you wanted off, you used a toggle power instead of discrete off.

5.11 Pond and outdoor heater controllers

Composer **Outdoor** and **My Yard** cover **infrared patio heaters** (timer and a safety auto-off) and **pond pumps** (a daily schedule and an on/off tile). Helix also has a documented **Pond Lite** controller path: a Shelly Plus 1 UL drives the 24 VAC coil of a pump-start relay, with a Class 2 transformer, optional Hand-Off-Auto, and a field GFCI supply.

What you need

- Heater: a Tuya (or otherwise supported) patio-heater controller rated for that heater, plus outdoor-rated wiring and clearances.
- Pond: the Helix Pond Lite assembly or the equivalent Shelly + pump-start relay package for this job, a Class A GFCI, and bonding as required. **Beta – confirm with Helix support** Ask Helix support which pond controller version applies to your job.

Safety

Patio heaters are fire and burn hazards. Keep clearances to roofs, umbrellas, and furniture. The kiosk forces a **maximum run time** (safety auto-off; timers on the kiosk include 30 / 60 / 90 minutes). Do not bypass it.

Ponds and fountains: GFCI and bonding are required in the U.S. (NEC 680). Use a licensed electrician. The Pond Lite assembly is described as **not UL listed as an assembly**, so field use needs AHJ acceptance. Size the breaker and conductors to the pump nameplate. The Shelly does not provide dry-run protection. Never stand in water while testing.

Wiring and mounting

Heater: follow the heater and controller listings. Outdoor-rated boxes, correct gauge, GFCI when required. Mount the heater per the manufacturer's clearances.

Pond Lite v3 (current, from Helix's pond notes):

1. Field GFCI feeds the line terminals of the pump-start relay (example used in those notes: a 25 A pump-start relay, 1 HP at 120 V / 2 HP at 240 V). The relay's load contacts feed the pump.
2. A Class 2 transformer and the Shelly (and an optional HOA switch) live in a companion box and drive **only the 24 VAC coil**. Keep Class 2 wiring separated from line voltage.
3. In the Shelly app, set the input to **Detached** and the power-on default to **OFF**. Pre-pair the Shelly to the Helix account, then find it in Composer.
4. There are 120 V and 240 V versions — use the one that matches the pump.

Adding it in Composer

Outdoor → **Add outdoor heater** or **Add pond pump**, or My Yard → Pond pump. Pick the Tuya or Shelly device, set the heater's max run time, and set the pump schedule. Gates in My Yard always ask for the PIN to open.

Testing

Heater: a short timed run, then confirm auto-off. Pond: with the HOA in Auto, an on command pulls the relay in and the pump starts; Off drops the coil to 0 V; Hand and Off at the HOA work as labeled; trip the GFCI with the pump running and confirm it shuts down. Do not leave a heater on when you leave the site.

Troubleshooting

A pump that does not start with the Shelly on may have no coil voltage, a tripped GFCI, or HOA in Off. A heater that will not show in Composer is usually on the wrong Tuya account or missing its room / Outdoor card.

5.12 Energy monitor

Helix shows solar, home use, and grid flow on the Energy tile from **Tuya energy meters / CT clamps**. In Composer, each meter is marked **Solar** (production), **Grid** (import; negative = export), or **Load** (a circuit).

What you need

A supported Tuya meter or CT kit, and a legal, safe place to clamp CTs (usually in the service or a subpanel). Beta – confirm with Helix support Helix has not approved a meter kit.

Safety

Panel work is for a **licensed electrician**. CTs go on the correct conductors, in the correct direction, with the panel cover off only while that person is working. Do not exceed CT ratings. Do not land CTs on bus bars or lugs they are not designed for.

Wiring and mounting

1. De-energize and lock out if the work requires it, or have the electrician work live only with the PPE and procedures their license requires.
2. Place the solar, grid, and load CTs exactly as the meter vendor diagrams (direction arrows matter).
3. Route the signal leads out of the panel through an approved clamp or knockout. Close the panel before you leave.
4. Pair the meter to the Helix Tuya account.

Adding it in Composer

Energy → add each meter or channel → mark Solar, Grid, or Load → Send to tablets.

Testing

With solar on (daytime) and a known load, the signs should make sense: production up, a turned-on load visible, grid import/export in the right direction. If solar reads negative and the house looks like it is generating at midnight, a CT is backwards or Solar/Grid is swapped.

Troubleshooting

Zero on all channels is often a pair/account issue or a meter that never joined 2.4 GHz. One reversed CT is the usual “backwards” graph.

5.13 Irrigation and sprinklers

This is supported in current Composer and kiosk code, under **My Yard**: sprinkler **zones** can use a **Tuya / Smart Life valve controller** or **Rachio**, with schedules, weather **rain-skip** (a set number of inches or chance of rain), and optional soil-moisture auto-water. It is not a [planned] placeholder. The **preferred hardware kit** and wiring standard are Beta – confirm with Helix support: ask Helix support.

What you need

- A Tuya multi-zone valve controller on the Helix Tuya account, **or** a Rachio controller (API key stored only in the hub secrets file).
- 24 VAC irrigation transformer and zone valves (most residential systems), or the valve box the controller is specified for.
- Home ZIP already set in Composer (rain-skip and weather).
- Optional: Tuya soil-moisture sensors, and a licensed irrigator if the job requires one.

Beta – confirm with Helix support Helix has not named a standard valve controller or Rachio model, or a zone limit. The software allows up to 32 zones; a given controller will have a lower physical limit.

Safety

Most valve wiring is 24 VAC, but the transformer primary is line voltage — treat that part like any other line-voltage device, on a GFCI or a protected receptacle as required. Do not stand in a flooded valve box with live conductors. Shut water off or be ready to stop a zone if a head is blown. Keep master-valve and pump-start circuits on the terminals meant for them; a pump-start landed on a zone terminal can run a pump dry. If this system also starts a well pump, use a licensed electrician or well contractor and a proper pump-start relay (the pond section's pump-start pattern is the right idea; do not improvise).

Wiring and mounting

1. Mount the controller in a dry, serviceable location (or use an outdoor-rated enclosure).
2. Land the 24 VAC transformer on the controller's power terminals.
3. Common (usually white) to the valve common. Each zone wire to that zone's terminal. Master valve / pump-start only on those labeled terminals.
4. In the valve box, use waterproof connectors. Leave a service loop and a labeled map of zones.
5. Restore power and confirm the controller powers up. Pair a Tuya controller to the Helix account, or complete Rachio's own setup, before you open Composer.

Adding it in Composer

1. My Yard → **Find yard devices (Tuya)** to pull valves, sensors, plugs, and gate openers, **or** add a zone and set the driver to **Tuya / Smart Life valve** or **Rachio**.
2. For Rachio, enter the Rachio zone ID and controller ID in the zone row. Put the API key in the hub secrets file, never in Composer.
3. Set a default run time (minutes) per zone.
4. Add a schedule and leave **rain-skip** on unless the customer wants it off. Rain-skip needs the Home ZIP.
5. Optional: add a soil sensor, thresholds, and auto-water to a zone, with a cooldown so it cannot cycle all day.
6. Send to tablets. The family gets a My Yard tile.

Testing

Run each zone for a short time from Composer / My Yard and walk the heads. Confirm the correct heads open, there are no leaks at the box, and Stop ends the run. If rain-skip is on, do not be surprised when a schedule is skipped after rain — that is the feature. Do not leave a zone unattended on a long first test.

Troubleshooting

A zone that does not open is often a reversed common, a cut zone wire, or a bad solenoid (you can usually hear or measure the solenoid when it is energized). If Tuya valves do not appear, the controller is on the wrong account or Find yard devices was not run. If Rachio does nothing, the API key is missing from the hub secrets, or the zone / device IDs are wrong. If rain-skip never fires, Home ZIP / location is not set.

After all devices

1. Walk every room with the wall tablet. Test what the family will actually tap.
2. Run Goodnight and any everyday scenes once, in person.

3. Send to tablets a final time. Export a `.helix.json` backup.
4. Hand the homeowner the kiosk PIN at handoff only, plus a short tour. Do not leave installer tools, a HELIX stick with a live project, or a laptop signed in to Composer.
5. Remind them that the alarm is not a monitored burglar or fire system unless Helix has separately put that in writing for this house.

HELIX INTEGRATION
Installer instruction sheets · November 2026
Wentzville, Missouri · helixintegrate.com

SHEET 6 OF 6

Room & Device Intake

Customer form: rooms, devices, and how each one connects

Fill this out before we program your Helix system. Use **one page per room**. For every device, tell us how many you have, what it is, **how it communicates**, the brand and model, and whether a light is a dimmer. Remote setup is based on up to **six rooms**. If your house has more, use the extra blank page and we will go over it.

About your home

YOUR NAME

DATE

INTERNET PROVIDER

ROUTER BRAND AND MODEL

WI-FI NAME (SSID ONLY)

Do not write the Wi-Fi password, any PIN, or a camera link on this sheet. We will ask for those securely.

Rooms and existing hubs

HOW MANY ROOMS ARE IN THE HOUSE?

Remote setup is based on up to six rooms. Write the real count even if it is more.

EXISTING HUBS OR APPS (TICK ALL THAT APPLY)

☐ Hue bridge ☐ SmartThings ☐ HomeKit / Apple Home
☐ Amazon Alexa ☐ Google Home
☐ Smart Life / Tuya only ☐ Shelly ☐ Other

IF OTHER, WRITE THE NAME

How to tell how it connects

1. Look on the device, the box, or the wall plate for a **Wi-Fi**, **Zigbee**, or **Z-Wave** logo.
2. If you set it up in a phone app over your home Wi-Fi (Smart Life, Kasa, Shelly, and similar) and there is no extra hub, it is usually **Wi-Fi**.
3. If it joined a hub or bridge first (Hue, SmartThings, an Aqara hub, a Zigbee or Z-Wave stick), it is usually **Zigbee** or **Z-Wave**. Check that hub's app.
4. A common light switch with no radio, or a thermostat on furnace cable only, is **Wired**.
5. If you are not sure, tick **Don't know**. We can sort it out.

Where to find brand and model. On the label on the back or side, or behind the switch plate (turn the breaker off first). Or in the phone app under the device's settings / device info, or on the original box.

Type column — use one of these words: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Worked example (also at the top of every room page). Living Room: **2** ceiling **lights**, **Zigbee**, brand **Aqara**, model **LED Bulb T1 (example)**, **dimmer yes**, app **Aqara / Apple Home**. Generic demo data — not a real house.

Room 1 of 6

ROOM NAME _____ **FLOOR** _____ **WALL TABLET IN THIS ROOM?** ☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE 2	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 1. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Room 2 of 6

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE *2*	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 2. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Room 3 of 6

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE *2*	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 3. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Room 4 of 6

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE *2*	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 4. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Room 5 of 6

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE *2*	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee* ✓ ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y* ✓ ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 5. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Room 6 of 6

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE *2*	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Room 6. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.

Extra room (if you have more than six)

ROOM NAME

FLOOR

WALL TABLET IN THIS ROOM?

☐ Yes ☐ No

Type: light/switch · dimmer · outlet/plug · thermostat/AC · fan · shade · lock · garage · camera · doorbell · sensor (door/window/motion/leak) · siren · speaker/TV · irrigation · other.

Qty	Type	How it connects (tick one)	Brand	Model	Dimmer	App it uses now	Notes
EXAMPLE 2	*light/switch*	☐ *Wi-Fi* ☐ *Zigbee ✓* ☐ *Z-Wave* ☐ *Wired* ☐ *Bluetooth* ☐ *Don't know*	*Aqara*	*LED Bulb T1 (example)*	☐ *Y ✓* ☐ *N*	*Aqara / Apple Home*	*Ceiling lights over the sofa — example only*
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		
		☐ Wi-Fi ☐ Zigbee ☐ Z-Wave ☐ Wired ☐ Bluetooth ☐ Don't know			☐ Y ☐ N		

Extra. Tick how each device connects. Example row is a pattern only — generic demo data, not a real house. Apps you might already use: Smart Life/Tuya, Shelly, Hue, Kasa, Aqara, HomeKit, SmartThings, ecobee, other. Do not write passwords.