AXIS Gear Partner Course Documentation

V1.4

September 27, 2019

This document is accurate for the following builds:

Firmware 1122

iOS 1.2.32

Android 3.3.5

Contents

Intro

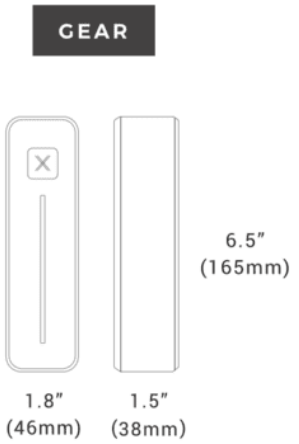
What is Gear?

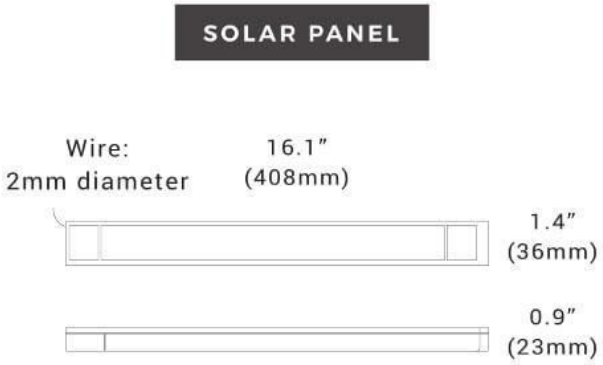
Gear is a retrofit device which automates existing window shades. It easily attaches to any window and turns regular shades into smart shades. With powerful components and a design that speaks for itself, Gear can complement any room to complete any home.

Gear can be controlled either by using on-device controls, the AXIS app or leading smart home hubs. Groups can be created to move multiple shades simultaneously, and schedules can be set to automate a home. Ultimately, Gear is a strong, subtle and stunning solution to more efficiently and easily control window shades.

Gear Specifications

Physical Specs





LIFT CAPACITY

Approximately 9 ft x 9 ft or 10 lbs of weight

CONNECTIVITY

Bluetooth Low Energy
Zigbee HA 1.2

BATTERY

Internal lithium polymer recharged via solar panel (9 ft cable)
12 AA backup (Batteries included)
Power Adapter (9 ft cable)

WHAT'S IN THE BOX

Gear, Solar Bar (batteries included), power adapter, back cover, mounting bracket, positioning tool, screws, double-sided tape, cable clips, bead connectors, and quick start guide.

On-Device Buttons

There are 3 physical buttons on the top of the device **SET, GROUP** and **PAIR**, and an LED capacitive touch interface on the front of the device.

Each physical button press creates a different outcome, along with combination button presses such as Group+Pair.

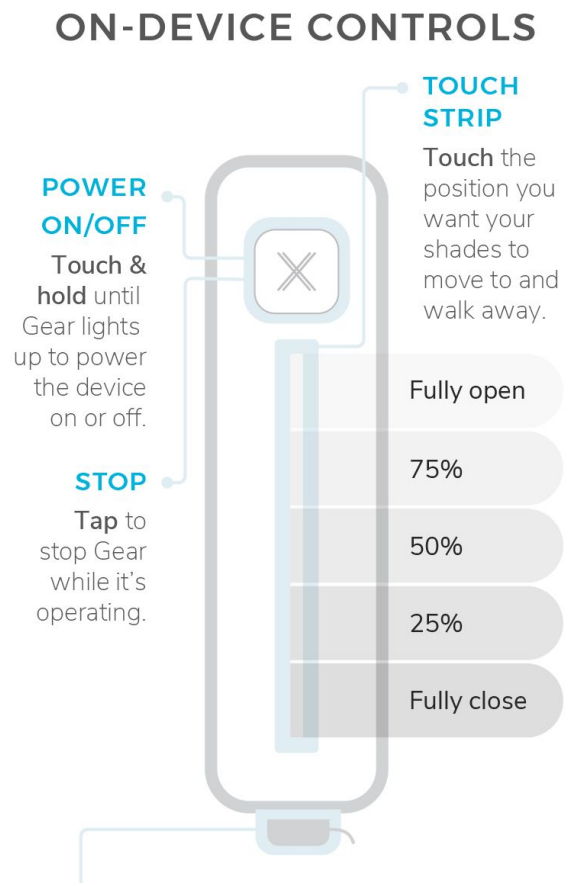
Use the Set, Group, and Pair buttons for setup and diagnostics features. There is a further chapter on these buttons.

The touch interface consists of a **POWER** button near the top (signified by the AXIS logo) and a series of **LED CAPACITIVE TOUCH BUTTONS** positioned on the **TOUCH STRIP**.

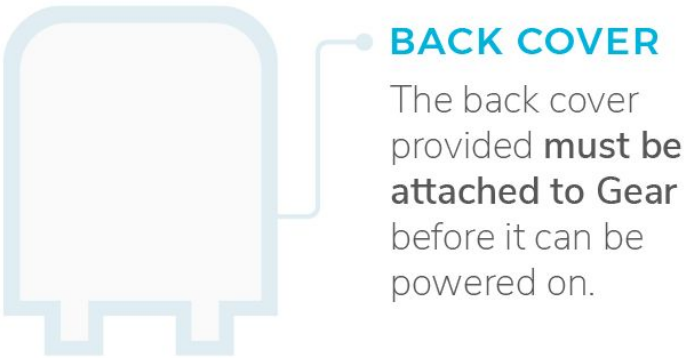
The Power button turns Gear on and off or stops operation, while the touch strip is used to control the shade.

To turn Gear on or off, touch and hold the Power button for five seconds or until the Touch Strip lights up. While Gear is in operation, tap the Power button to cease movement.

Pressing the top of the Touch Strip opens the shade to the fully opened position and pressing the bottom of the touch strip moves the shade to the fully closed position. You can move the shade to 25%, 50%, and 75% positions by touching the Touch Strip in-between the opened and closed positions.



The back of Gear has a Back Cover. The Back Cover MUST be on to power Gear on and to use Gear in any capacity. Gear does not respond to any commands while the cover is loose. Removing the cover while Gear is on turns the Gear off. If there is a loose cover, snap it back into place and power Gear on.



Battery and Charging

Battery

Gear is powered by either the Solar Bar or Power Adapter. These are included in the box with Gear and plug into the bottom of the device. It is up to you to decide which method works best for the customer's setup. Gear must always be plugged into a power source to function at full capacity.

When not plugged into a power source, Gear displays a flashing red LED at the bottom of the LED Touch Strip when an attempt at a Gear interaction is made.

SOLAR BAR

The Solar Bar uses sunlight to recharge Gear. It comes equipped with non-rechargeable AA batteries inside the casing. If there is insufficient sunlight, the Solar Bar uses power from its AA batteries. The batteries are meant as a secondary power source if there is not enough consistent sunlight.

Once the batteries drain, Gear flashes one red LED on the bottom of the LED strip when an interaction is attempted. This is the same error message pattern as in the case of not being plugged into a power source. If Gear is plugged into the Solar Bar and you see this message, replace the AA batteries.

POWER ADAPTER

The Power Adapter uses electricity from the home to power Gear. This AC adapter keeps the internal battery inside Gear charged. As long as the Power Adapter is connected to Gear and a power outlet, Gear will run efficiently without interruption.

Charging

CHECK BATTERY STATUS

You may check battery status from within the AXIS app. To do so, connect to the Gear, navigate to Gear Settings and then select About This Gear.

During initial Gear configuration via the AXIS app, you are given a choice as to whether you wish to power Gear via the Solar Bar or the Power Adapter. This choice determines how the battery readout functions from Gear Settings.

SOLAR BAR READOUT If you determine that the Solar Bar is the primary source of power, then you will see two separate readings; *AA Battery* and *Stored Energy.*

The AA Battery section is a reading of the 12 AA batteries in the Solar Bar. These batteries do not recharge while in use and can only drain over time. If this reaches 0% then Gear will become inoperable and the batteries will need to be changed.

The Stored Energy section is a reading of the solar energy harvested by the solar component of the Solar Bar and stored with the internal battery. This can be either Strong, Weak, or Critical. This reading is taken over time and factors in your usage to provide a general idea of the harvested solar energy that is available. Gear first uses up this energy, followed by the energy provided by the AA batteries. This reading can fluctuate up and down based on available sunlight and usage. If the power consumption due to Gear usage exceeds the rate that solar energy is harvested, then AA battery energy will be used to power Gear while the stored energy charges the internal battery.

POWER ADAPTER READOUT

If you determine that the Power Adapter is the primary source of power, then the battery storage percentage does not provide a readout. It simply states that Gear is plugged in. This is because in this case, Gear receives power through the wall charger and there is no battery to read.

It is important to note that there are potential incompatibilities with the power source selection and battery readout. If you determine that the Solar Bar is the primary source of power but instead plug in the Power Adapter, then the readout shows between 30% and 35% at all times. If you state that the Power Adapter powers Gear and instead plug in a Solar Bar, then the app states that Gear is plugged in; regardless of whether the Power Adapter or Solar Bar is plugged in. Both of these cases provide incorrect information. It is important that the app is provided with accurate power source information so that it may provide an accurate readout.

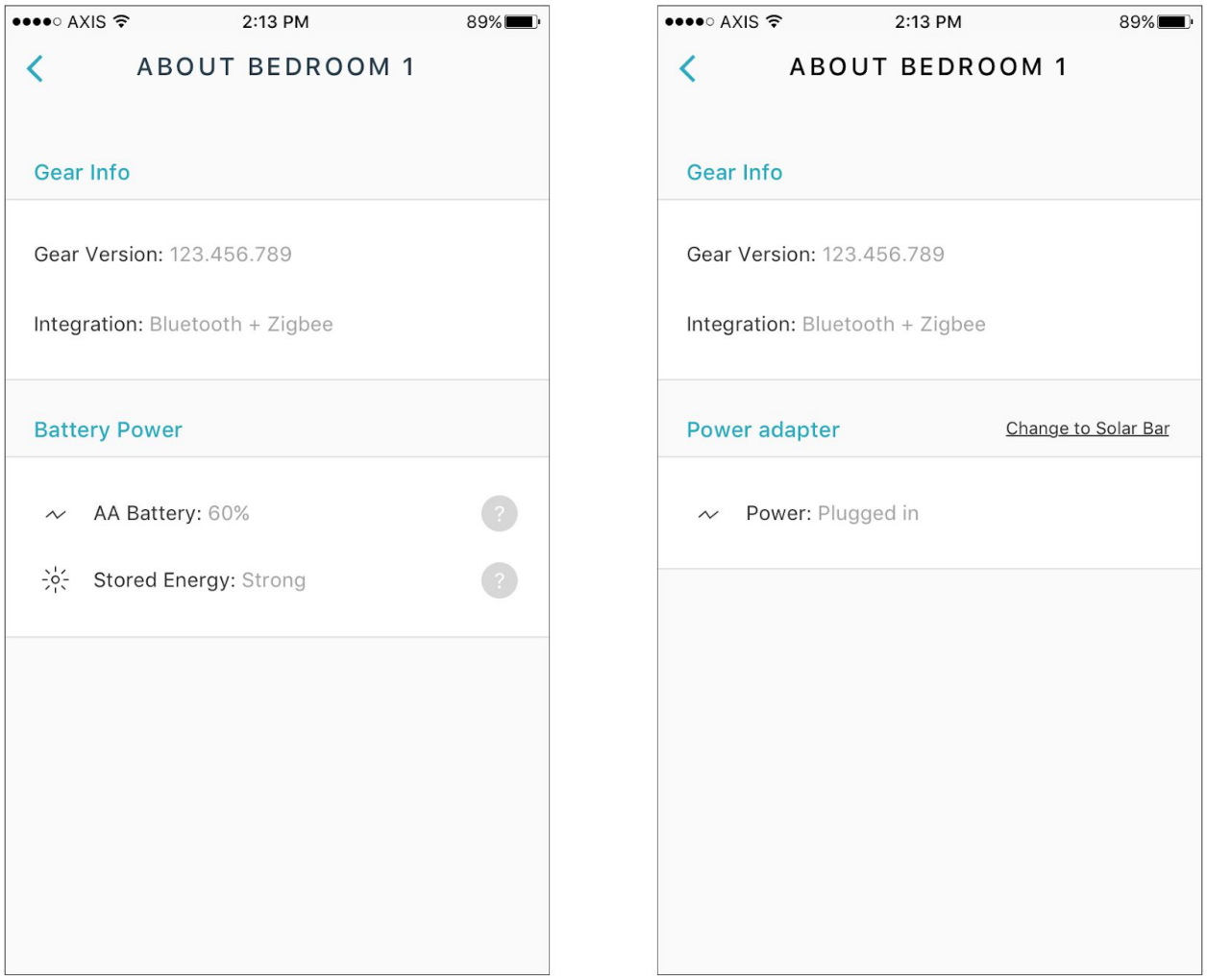


Figure 1 Solar Bar readout (left), Power Adapter readout (right)

LOW LEVEL BATTERY/ENERGY WARNING

If either the AA battery or Stored Energy is low, then the app provides a warning on the main Gears Dashboard screen. The levels are accurate as of the last time the app connected to Gear. If there is a warning message, then the app keeps displaying the message until the next time Gear connects to the app. At that point, a new reading is taken, and the warning message either disappears or remains on the screen.

There is a red exclamation mark icon beside any Gears that have a warning. Selecting the icon displays a message with further information.

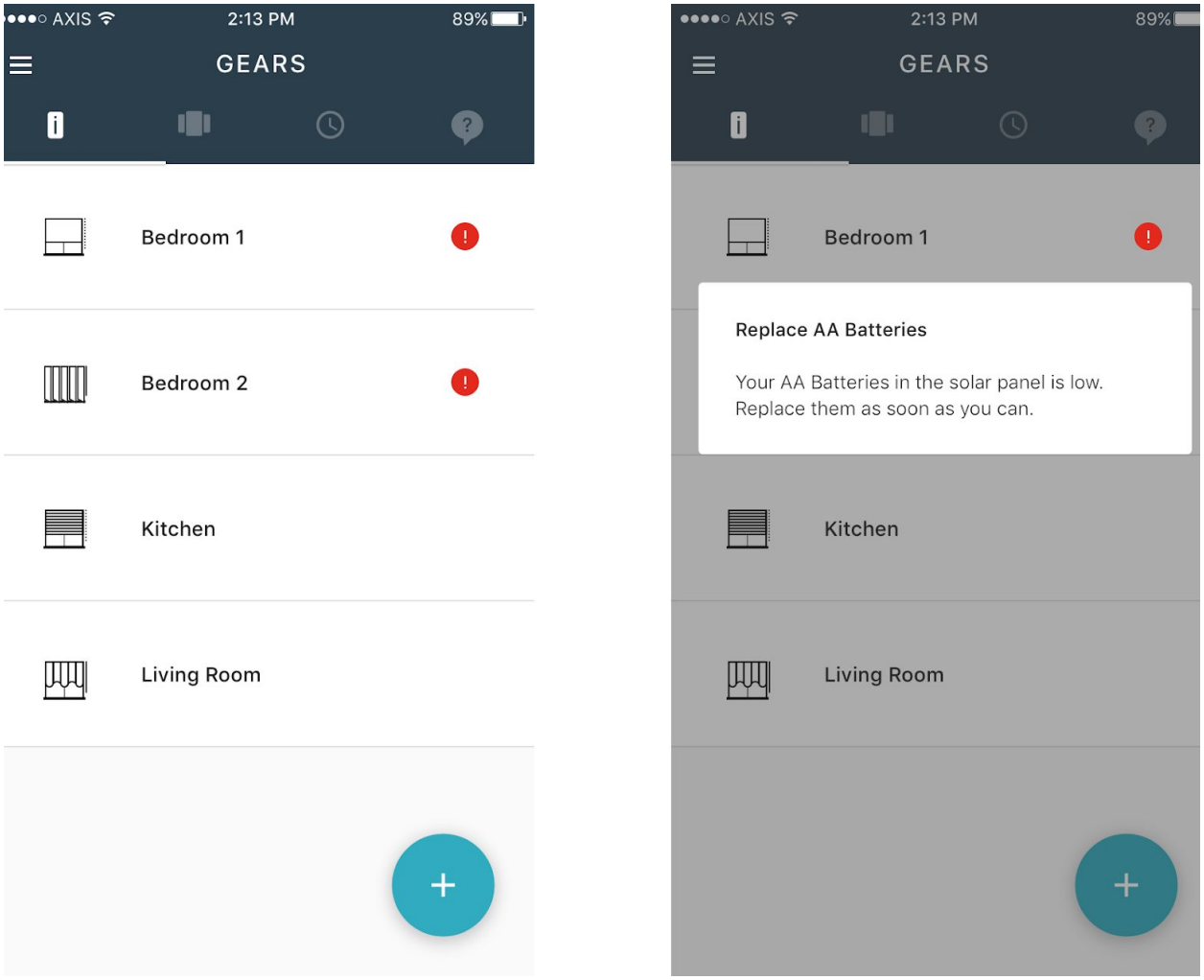


Figure 2 Gears dashboard with warning icons (left), Warning Message (right)

GEAR UNPLUGGED WARNING

Gear only responds to commands while plugged into a power source. The only exception to this rule is that schedules still fire if they were sent to Gear before the power source was unplugged.

Top and bottom positions, as well as internal time, continue to be stored with Gear until the internal battery runs out.

The app displays a message if it senses that Gear is unplugged. Like with the battery warning message, the app only displays this message after a connection attempt.

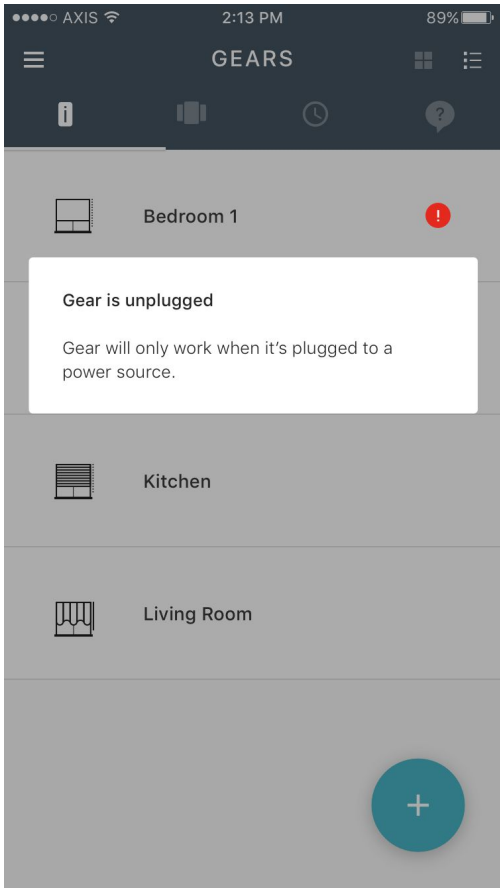


Figure 3 Gear unplugged warning

DEEP CHARGING

It is highly recommended that you deep charge the device when the unit comes out of the box. To deep-charge Gear, please follow the instructions outlined in this video: https://www.youtube.com/watch?v=PCZ2WF6LaQ4&t=7s

You may use either the Power Adapter or the Solar Bar to complete this charge. Ensure you remove the Back Cover as outlined in the video.

Shade Compatibility

Gear is compatible with any window covering that is controlled with strings/cords and beaded chains (metal or plastic) which are looped. These generally look like a U at the lowest point of the string or chain.

Compatible window covers include all types of roller and solar shades, and even many vertical blinds, venetian blinds, and draperies - regardless of brand. Gear is also designed to work with chains that use connectors.

Figure 4 Compatible Chains and Cords

Phone, Device, and Hub Compatibility

AXIS Gear works with leading smart home hubs and mobile devices.

Gear and its companion AXIS app are compatible with iPhone 6 or newer on iOS 11.0+ and most Android phones that run Android OS 7.0 or higher. While it is possible that the app functions on devices older than the above, we do not provide official support for them. This is due to a variety of reasons including speed and reliability of the device software and Bluetooth functionality.

AXIS Gear is directly compatible with the Samsung SmartThings hub, Control 4 ecosystem, and Amazon's Echo Plus series. These integrations have been tested, and support is provided for these types of direct integrations.

It is also possible to use SmartThings to indirectly link AXIS Gear to Alexa, Google Home, and other hubs. Support is not provided for these types of indirect hub connections.

Firmware Updates

AXIS regularly updates Gear firmware to bring customers improved functionality and bug fixes. Updates are performed by using the AXIS mobile app in conjunction with a synced Gear.

Often, Gear firmware updates offer significant improvements in connection speed and stability. They also frequently offer additional feature sets. It is important that firmware is updated regularly as our app, documentation, and customer support are all catered to the newest firmware builds.

Performing an OTA Firmware Update

UPDATE NOTIFICATION

When there is an available update, the app displays a notification directly on the main Gears Dashboard.

Firmware and app release notes are found at
https://support.helloaxis.com/hc/en-us/sections/360000069408-News

UPDATE PROCESS

To begin an update, tap the notification or navigate to the menu and select “Gear Updates”.

The Gear Update screen displays brief notes about the available update and initiates an OTA (Over-The-Air) file download.

Once the OTA file download is complete, proceed to the next screen. A list of devices will appear and devices with an available update will display an “Update” button. Press the "Update" button.

During the update, the Gear enters bootloader mode and becomes unresponsive to commands or schedules. During bootloader mode, all Touch Strip LEDs turn white. Once the OTA process is complete, Gear turns off and the app displays a success message. At this point, manually power Gear on again.

An update can take up to 15 minutes to complete, though typically it takes 3-5 minutes.

If the OTA process fails or gets stuck, hold either Set, Pair or Group. This causes the white LEDs to disappear. Turn Gear back on, and in-app back out to the main Gears dashboard and

reattempt the update process. If the LEDs never turn white, ensure Gear is powered on and not in Smart Home Mode and try again.

Older versions of firmware combined with some mobile devices and app builds may require several attempts to complete an OTA successfully.

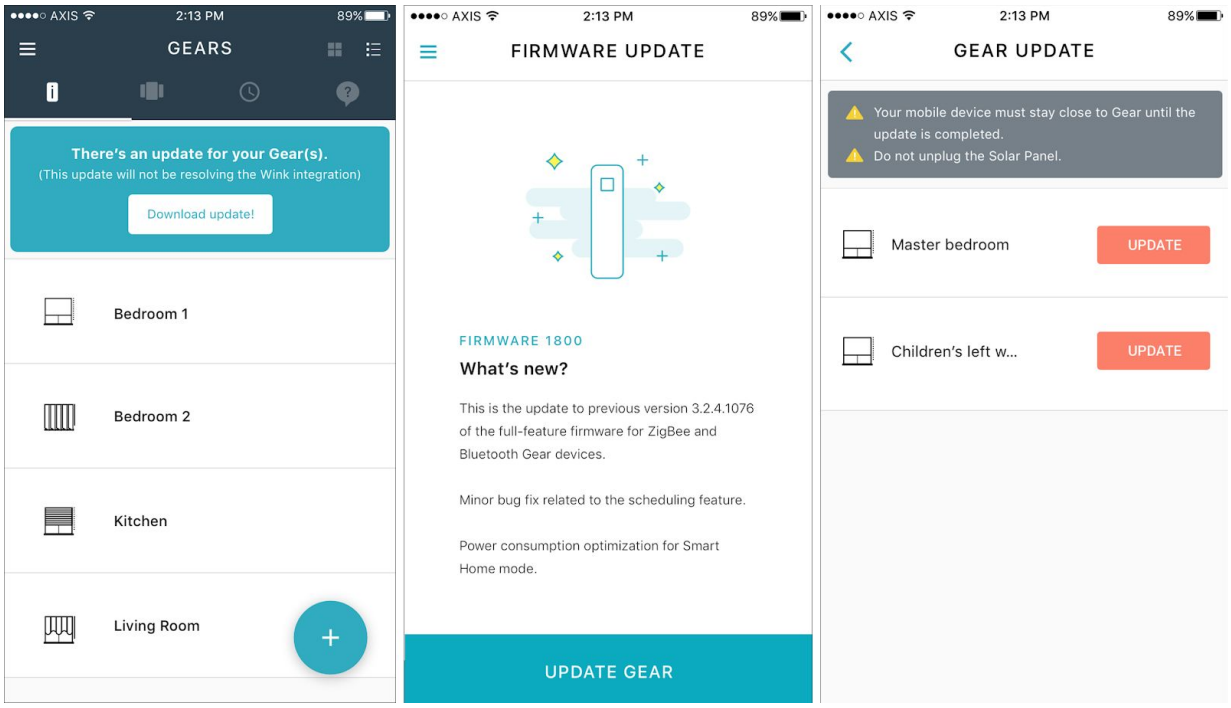


Figure 5 Update Banner (left), Firmware Download (middle) Select Gear (right)

Gear Installation

Mount Configurations

Gear can be installed using one of three different mount configurations: Inside, Outside, or Middle (Mullion). Before you begin, determine which mount configuration is correct for your scenario.

INSIDE MOUNT

If the window shade sits inside the window frame and there is enough space on the frame for Gear to be placed beside the shade, use the Inside Mount position. This mount configuration requires the Gear bracket to attach to the inside of the window frame. Place the back of the bracket against the mounting surface.

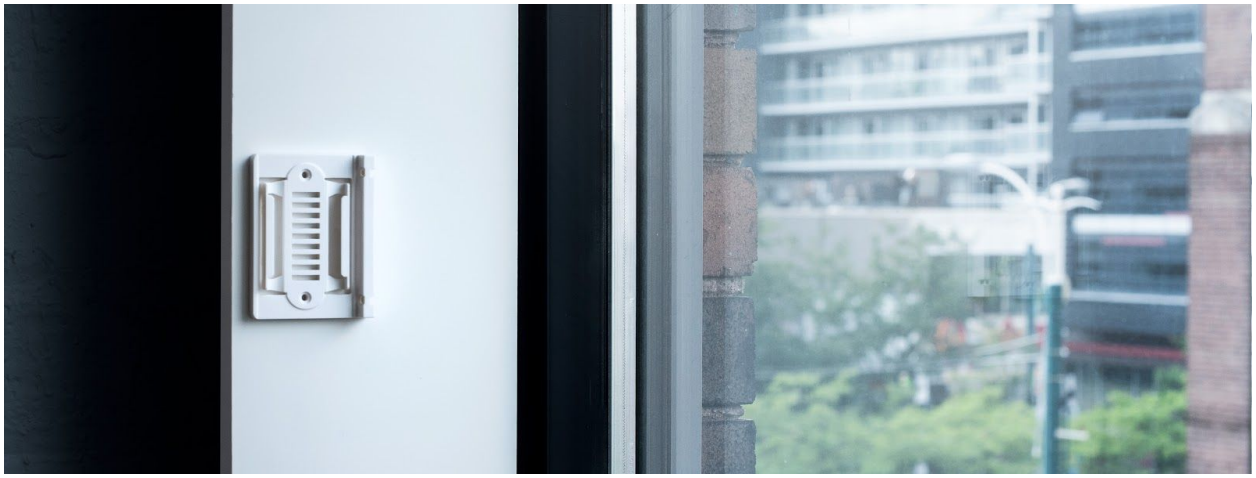


Figure 6 Inside Mount

OUTSIDE MOUNT

If the window shade is positioned in a way where it covers the whole window frame, or there is not enough room for the shade and Gear to be placed side by side, use the Outside mount position. This configuration requires the Gear bracket to attach to the wall on the outside of the window frame. Place the side of the mounting bracket against the mounting surface.

Figure 7 Outside Mount

MIDDLE (MULLION) MOUNT

If the window shade does not have a window frame or wall nearby, Gear can be mounted on a middle pillar between two windows. This position is useful for areas such as boardrooms with wall to wall windows and little to no mounting area in between. This configuration requires the Gear bracket to attach to the divisional structural elements between windows. Place the side of the mounting bracket against the mounting surface.

Figure 8 Middle Mount

Setup of Install Space

Gear is built to work with many shade types, cord types, mount configurations, and mount materials.

Generally, Gear works with any combination of:

SHADE TYPES

Roller Shades, Roman Shades, Vertical Blinds, Curtain or Drapes

CORD TYPES

Metal or Plastic Beaded Chain, String or Cord

MOUNT CONFIGURATIONS

Inside, Outside, Middle (Mullion)

MOUNT MATERIALS

Drywall, Metal, Glass, Wood, Plaster (requires additional accessories), Concrete (requires additional accessories)

Gear comes bundled with a mounting bracket that can be installed on to the window frame using screws or double-sided adhesive tape. Screws and tape come included in the package.

Screws are recommended if the mounting material is drywall or wood.

The tape is recommended for middle section installations or if the install space is metal or glass.

For installation on plaster walls, screws with anchors must be used as the tape is unreliable on this type of surface material. We recommend using 18-8 stainless steel #4 1-½” long phillips flat head screws paired with #4-8 ¾” conical plastic anchors (not included).

For concrete surfaces, concrete screws are required for a secure installation. We recommend using 3/16” diameter, 2-¼” long flat head concrete screws (not included). The holes for screws on the mounting bracket will need to be enlarged to accommodate these 3/16” diameter concrete screws that also comes with a bigger flat head.

RECOMMENDATIONS:

Included Screws: Drywall, Wood

Included Double-sided Tape: Metal, Glass or a middle section (Mullion) installation

Not Included Screws and Anchors: Plaster

Not Included Concrete Screws: Concrete

It is critical to note that in most cases the bracket is a permanent install. Tape or screw placement must be correct as it is often very difficult, if not impossible, to modify the placement.

Pre-Installation Mount Setup

REMOVE BLOCKERS

If the chain or cord has any attachments that are wider than the chain itself, remove them. These include items such as ball-stoppers, oversized bead connectors, and cord-tensioners. If these types of items remain on the chain or cord, then there is a high probability that the chain gets stuck as it passes through Gear. If you require a bead connector, we include one in the box. The included bead connector is designed to pass freely through Gear.

ENSURE THERE IS SUFFICIENT SPACE AROUND GEAR

When deciding on the best mounting position, make sure that there is three inches of space below the mounting bracket. This space is needed as Gear must be plugged into a power source to operate. If there is too little space, then the charging cord may not have enough room near the bottom of Gear to plug in or may be difficult to unplug.

Additionally, ensure that as the shade moves up and down past the mounting bracket, the shade never touches the bracket. The shade touching the bracket impedes shade movement and could lead to a situation where the shade cannot move past Gear. A good general rule is to position the bracket, and while holding it against the window frame or wall, move the shade up and down past your hand. If it hits your knuckles, then you should reconsider the bracket placement and move it further away from the shade's area of movement.

Finally, think about whether the included Solar Bar or Power Adapter is the best option to power Gear. Based on style preference and availability of power outlets this may play a role in how Gear is mounted.

Figure 7 Minimum Space on Bottom (left), Minimum Space on Sides (right)

CLEAN MOUNT AREA SURFACE

Depending on surface-type, wet a cloth with water (or ideally, rubbing alcohol) and wipe down the install area or use a mild cleaner with a nearly dry cloth. Before mounting, ensure that the area is clean and dry. This is especially important if using the double-sided tape as there is a chance that it won't work to its full strength and adhesiveness.

Installation

It is paramount that installation is done correctly and the below instructions are followed. If the mounting bracket is placed incorrectly, then there is a high likelihood that Gear will exhibit degraded performance quality.

Additionally, an incorrect installation and mounting/dismounting technique of Gear and its bracket can lead to degradation of the bracket itself. A degraded bracket negatively alters the performance of Gear - sometimes to a large degree.

In addition to the instructions in this chapter, the AXIS app also provides an interactive tutorial. To view this tutorial, open the AXIS app and navigate to “Installation” from the Menu.

POSITION GEAR

After selecting a place to install Gear, use the Positioning Tool to position the mounting bracket below the chain or cord. Make sure to position the tool so the chain is tight and tensioned. Also, make sure your chain or cord is not twisted and runs straight down.

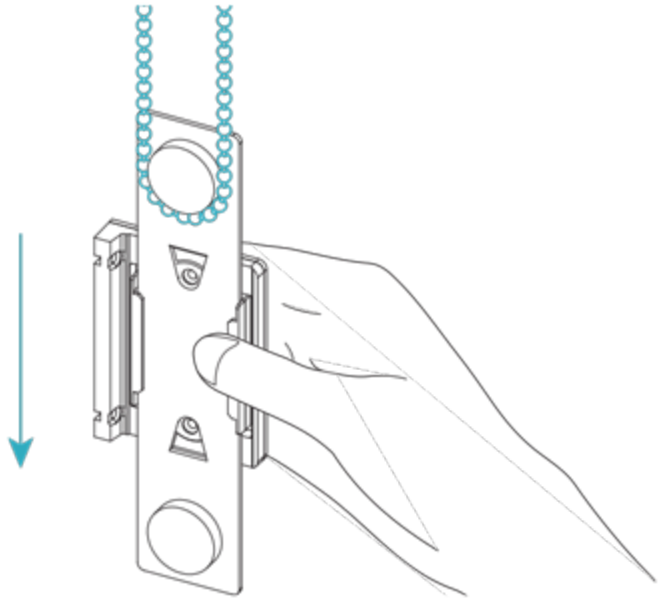


Figure 8 Positioning Tool

INSTALLATION

A) *Screws:* When installing Gear on drywall or wood, we urge you to use the mounting screws. With plaster walls, use the recommended screws and anchors. When installing onto plaster make sure to account for wall studs and/or electrical wires behind your wall. To locate

studs/wires, you can use a stud finder, which lights up to show you the location of the stud or warn you of electrical components that should be avoided.

To install Gear with screws, fasten your screws through the two holes in the Positioning Tool and through the bracket. Tighten until secure.

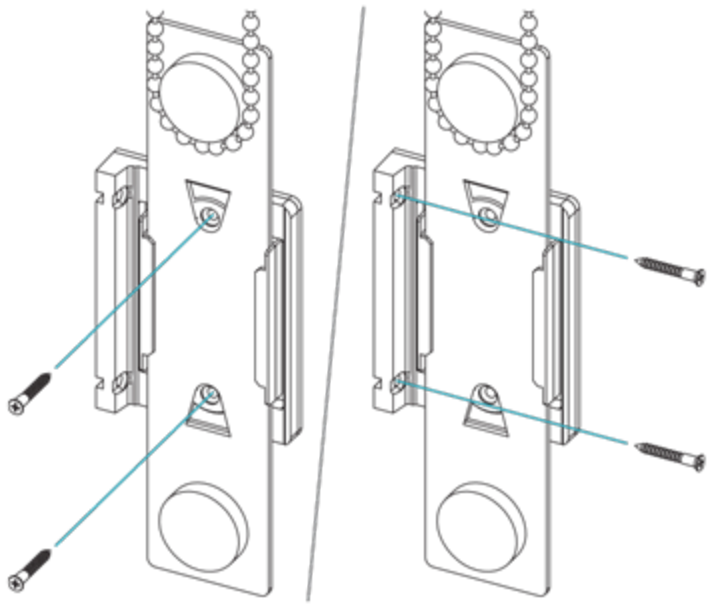


Figure 9 Inside Mount Position (left), Outside Mount Position (right)

B) Double-sided tape: If your shades are heavy or take a lot of force to open/close, use the mounting screws and double-sided tape when mounting onto drywall. If you are installing Gear on metal or glass, use the double-sided tape and do not attempt installation with the screws.

To install Gear with the double-sided tape, first, make sure the holes on the tape are aligned with the holes on the bracket. Next, peel off the yellow liner of the tape and apply it very carefully to the face of the mounting bracket (side or back) that is against the wall. Finally, peel the red liner of the tape off and firmly press the bracket against the wall for 10 seconds. Let the tape cure for at least one hour to gain adhesive strength between surfaces.

ATTACH CHAIN OR CORD TO GEAR

Remove the Back Cover, slide your chain or cord onto the cogwheel and snap the cover closed. To be safe, do not power on the device yet. Position Gear onto the mounting bracket from an angle, making sure to line up the grooves in Gear with the lips on the mounting bracket. Pull the device downwards until your chain is tensioned.

For metal or plastic chains or beaded cords, do not pull Gear down too tight as it may wear

down the device faster. Use enough tension so that the cord doesn't wobble or slip. For strings, use more tension. There should be enough to create a "guitar string" effect. The string should make a noise if plucked.

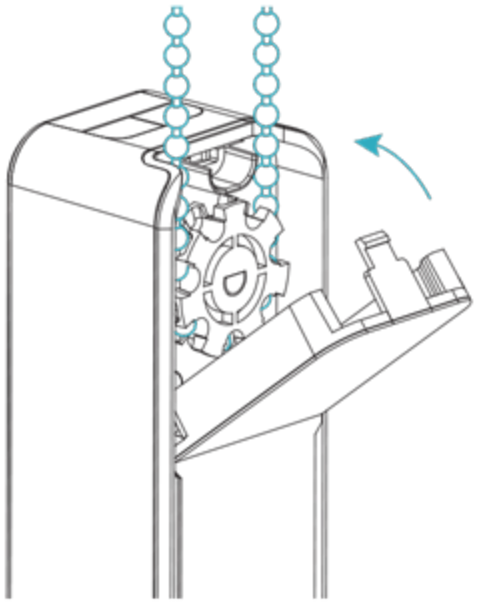


Figure 10 U-shaped Cord Loop

MOUNT GEAR ON BRACKET

On the back of Gear, towards the bottom, two grooves run vertically near the left and right edges. Similarly, on the mounting bracket, there are two mounting lips. Position Gear flat up against the Mounting Bracket (both Lips should be inside the bottom-back grooves of the device). Then, slide the device downwards until the beaded chain or cord loop pulls tight.

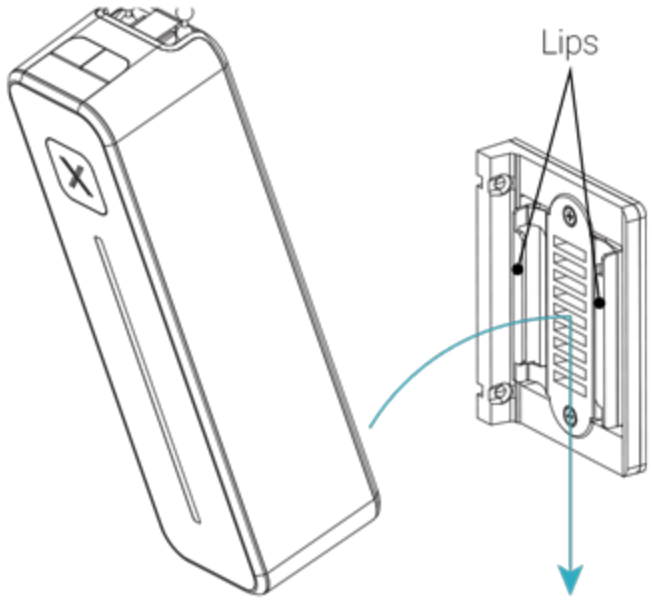


Figure 11 Gear Bracket

INSTALL THE POWER MODULE

Solar Bar: Mount the Solar Bar on the window. Before starting, make sure your window is clean and free of any moisture or dirt. Connect the Solar Bar to Gear. Next, peel the liner off the Solar Bar's mounting adhesives. You can now mount it directly onto your window.

We recommend mounting the Solar Bar as high as possible so that it hides behind the headrail or valance of your window shade and so that it gets sunlight as much as possible. If there are any shadows on your window shade from roofing or trees, be sure to place the module away from any shadows in a spot where there is lots of (ideally, direct) sunlight.

At each end of the Solar Bar, there is a cap. One cap is to replace batteries while the other can hide excessive cable. After opening the cap, you can wrap the cable around the middle section to set your desired cable length. Generally, this is easier to do once the Power Module is fully installed. When adjusting the cable length, make sure there is enough room to slide the cover back on. Finally, the cable that comes out of the cover can be oriented either to the left or right for a neat look that fits your window shade.

Power Adapter: Plug the adapter into a wall outlet and plug the other end into Gear. Cable positioning here is limited by the availability of power outlets in the immediate area.

In both cases, you can use the provided cable clips to keep any cords neatly tucked away. Cables can also be hidden using a variety of third-party organization tools such as a Legrand Wiremold CMK10 Cordmate Cord Cover Kit.

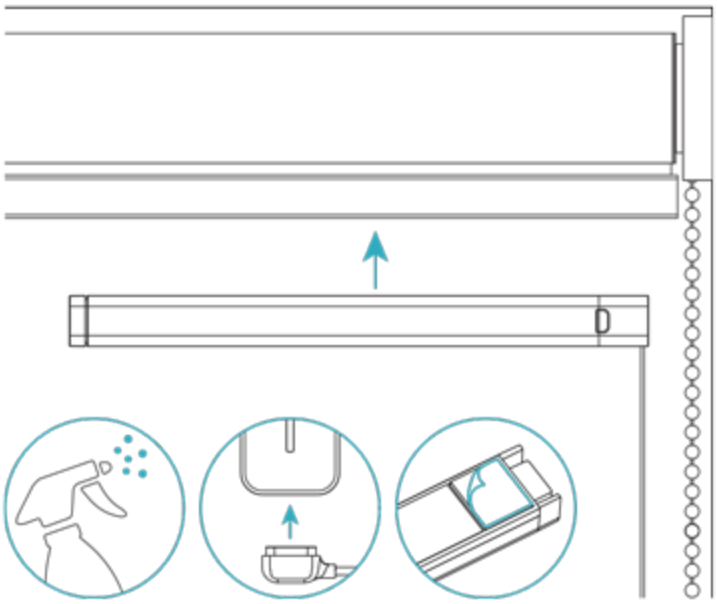


Figure 12 Solar Bar Installation

POWER ON GEAR

To turn Gear on, press and hold the power touch button for several seconds until the lights on the Touch Strip lights up. Gear has now been installed, turned on, and is ready to be set up!

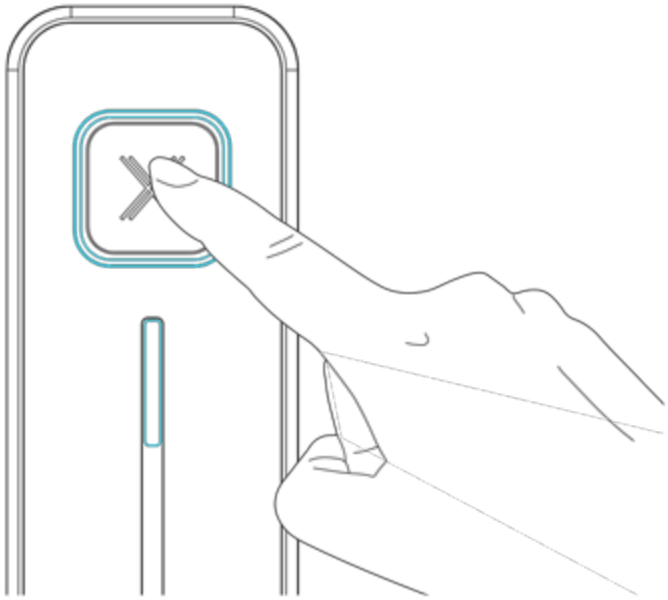


Figure 13 Power Button

Shortening A Chain

If you find that the chain is too long relative to where you want to position Gear, follow along with the video below to make the chain shorter. Ensure that you do not cut the chain too short as Gear will not fully open and close the shade.

https://youtu.be/JzshKSPVo0Q

Removing Gear From Bracket

Gear and its mount hold strong over the course of regular use. Gear should not come off on its own if installed correctly. For this reason, once Gear is on its bracket, removal may seem difficult at first. However, there is a specific way to do so without damaging Gear, the mount, or the mounting material.

First, power off Gear and unplug it from the power source.

Grab hold of the bottom of Gear and pull the bottom of Gear slightly away from the bracket. A cm or so will do. While still pulling the bottom away, lift Gear up and slide it off the mount. You may hear several clicks as you do so. These clicks are Gear moving in the opposite way past the grooves which hold it in place.

Improper removal of Gear may damage the mount and in rare cases can pull the mount off the mounting material (i.e., drywall).

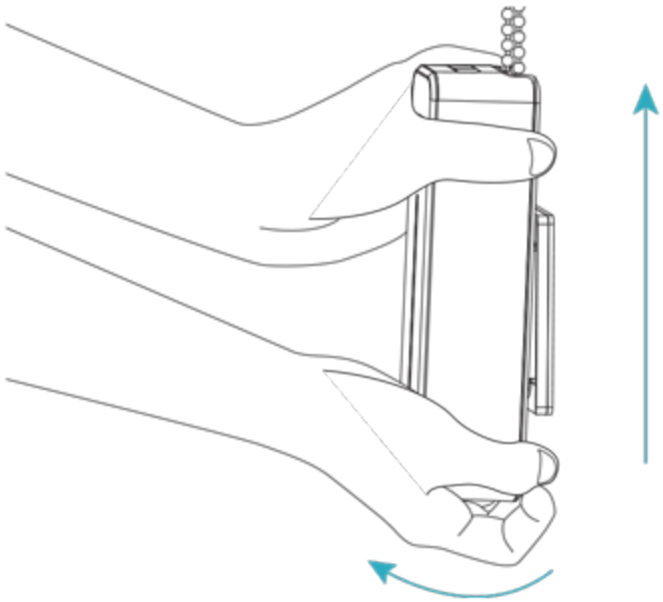


Figure 14 Gear Removal From Mount

Removing A Mounting Bracket

Due to the construction and overall sturdiness of the mounting bracket, we consider Gear a permanent solution and do not offer regular support with removal. It is for this reason why installation is ideally done by a professional and that the install space is prepared and placed appropriately.

If Gear was installed on drywall/plaster wall with the use of the double-sided tape, should removal absolutely be required, it can be done so with force. However, this will most likely lead to damage to the wall itself and/or the mounting bracket. Removal from glass or metal surfaces will not incur damage to these surfaces should it be done with care.

If the bracket was installed using screws on a porous surface such as drywall, then you may carefully remove these along with the bracket.

On-Device Control and Features

Gear Configuration and Control

There are five main Gear functions which can be performed using on-device controls:

POWER ON/OFF:

Press and hold the power button for 5 seconds.

Gear will pulse all LEDs blue if turning on or slowly fade the LEDs away if turning off.

CONFIGURATION/RECONFIGURATION:

1. Press and hold the Set button on the top of the device for a few seconds.

Gear will display a pattern of red, blue on the top two LEDs and blue, red on the bottom two LEDs.

2. Touch and hold the top or bottom of the Touch Strip to move the shades up or down. You may also tap the top or bottom of the Touch Strip for finer control. Once the shade has reached the desired open position, press Set once to save the open position.

Gear will display green, blue on the top two LEDs.

If the shade is moving in the wrong direction when you hold the top or bottom capacitive touch buttons, press the Pair button to reverse directions.

3. Touch and hold the other direction to move the shade to the desired closed position. Press Set when the shade is at the desired point.

Gear will display blue, green on the bottom two LEDs and all LEDs will flash green twice.

These same calibration points are retained when adding Gear to the AXIS app or a smart home hub. To adjust the settings to different positions, follow the above procedure again.

If using Gear with the AXIS app or a smart home hub, you may reconfigure Gear on-device at any time. Any new calibration settings reflect in the AXIS app or through a smart home hub.

https://youtu.be/w51Tg8q95UU

CONTROL:

Touch any position on the Touch Strip to move a calibrated Gear. The top position opens the shades fully, the bottom position closes the shades fully, and positions in between move the shades to 25%, 50%, and 75% positions.

An uncalibrated Gear will flash a Not Configured error pattern on the LEDs if an attempt to move the shade is made. In this case, Gear does not move the shades to any position.

SMART HOME MODE:

To enter Smart Home Mode using on-device controls, press and hold Group+Pair. The Touch Strip LEDs then flash purple twice. To exit Smart Home Mode, use the same button combination. The LEDs then blink blue twice.

A more in-depth chapter on Smart Home Mode is included later in this course.

PAIRING:

To use the AXIS app, Gear must pair with the app. When prompted, press Pair for Gear to start advertising a Bluetooth signal. On pressing Pair, the Touch Strip flashes all LEDs blue twice.

If the LEDs flash purple on pressing Pair, then this means Gear is in Smart Home Mode. In this case, Gear is not discoverable by Bluetooth. Put Gear back into Bluetooth mode by holding Group+Pair.

Pressing Pair is also useful during troubleshooting: upon pressing the button, all active BLE connections cease. This can be useful if you are unsure whether another device is actively connected to Gear.

LED Touch Strip User Feedback

The LEDs on the front of the device light up in multiple colors and patterns to indicate the status of Gear.

Below are some of the LED patterns and explanations as to what they mean.

For a full article and detailed animations of the LED patterns, visit

https://support.helloaxis.com/hc/en-us/articles/360011799193-What-do-the-light-patterns-on-Gear-mean-

POWERING ON
Pulsing BLUE lights

BLUE light fills the strip from bottom to the top

Two BLUE flashes

POWERING OFF
The whole strip lights up BLUE

The strip then fades to none

SHADE POSITION
BLUE light appears on Touch Strip relative to the current shade position

CALIBRATION MODE (press Set)
The top two lights turn RED,BLUE and the bottom two lights turn BLUE, RED

TOP POSITION CONFIGURED (during Calibration Mode)
The top RED light turns GREEN

BOTTOM POSITION CONFIGURED (during Calibration Mode)
The bottom RED light turns GREEN

NOT CONFIGURED (on button press)
The top two lights flash RED,BLUE and the bottom two lights flash BLUE, RED twice

PAIRING MODE
Whole strip flashes BLUE twice

TASK SUCCESSFUL
The whole strip flashes GREEN twice

CONNECTED TO APP
Whole strip flashes WHITE three times

LOW BATTERY or SOLAR BAR DISCONNECTED (on button press)
bottom flashes RED twice

ERROR
Whole strip flashes RED twice

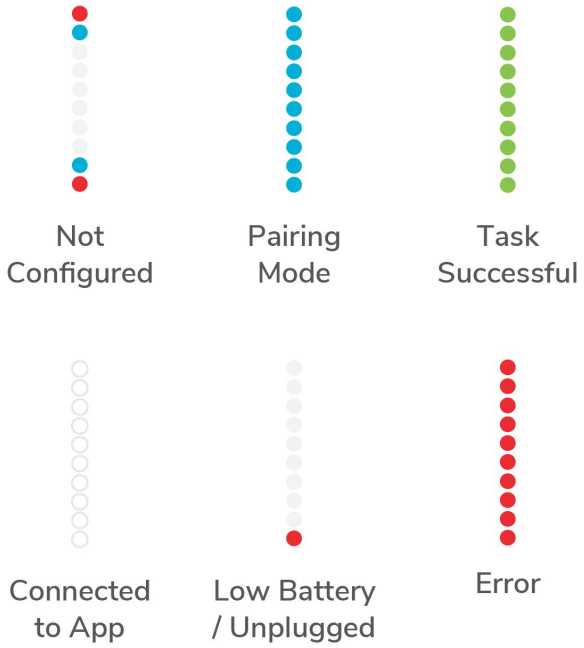


Figure 15 LED Pattern Examples

Smart Home Mode
Below are some of the combination LED patterns when AXIS Gear is in Smart Home Mode and explanations as to what they mean.

PAIRING
Whole strip flashes PURPLE.

SHADE POSITION
PURPLE light appears on Touch Strip relative to the current shade position

Gear Diagnostics and Troubleshooting Functions

BUILT-IN SELF-TEST (BIST)

To perform a BIST hold Set+Pair+Group while Gear is *turned off*. The Touch Strip LEDs will then turn cyan and then shortly after turn green. Once the LED Touch Strip turns green, release the buttons. If the buttons are not released, Gear will flash all LEDs red. If this happens, try again and release the buttons as soon as the LEDs turn green.

BIST has two main phases:

1. Upon releasing the buttons, Gear moves the shades up and down several times. Following this, all LEDs turn purple. This phase tests for motor direction.

An example of why this is important is if the user notices that when holding up during calibration, Gear always moves the shade down. This phase orientates Gear to the proper direction.

2. This phase tests for several additional potential faults and statuses. Once the LEDs are purple, press the power button followed by every position on the Touch Strip. Alternatively, you may slowly slide your finger down the Touch Strip.

Once all buttons have been pressed, the Touch Strip will display a color pattern. These colors signify the health of Gear and could help troubleshoot some issues.

LED Position and Color (Starting from the top of the Touch Strip)	**Meaning**
1. Green/Red	LiPo battery status (internal battery) Red signifies under 25% LiPo charge If Red, deep charge Gear
2. Blue	This is static
3. Green/Red	Alkaline battery status (AA batteries in Solar Bar) Green = over 75% Orange = 25% to 75% Red - under 25% If Gear is plugged into the Power Adapter, this will always be Orange
4. Blue	This is static
5. Green/Red	Motor Red signifies potential fault *This test is only accurate when performed while **not** attached to a shade cord. If attached, Red will always be the result.*
6. Blue	This is static
7. Green/Red	Solar Panel test Red is normal, Green will appear only on an exceptionally sunny day
8. Blue	This is static
9. Green/Red	Capacitive Touch Strip If Red, attempt test once more If Red persists, this may be a fault with the Touch Strip as it does not recognize certain presses
10. Blue	This is static

If you see Yellow LEDs instead of the static Blue LEDs, please contact AXIS support as this could be a critical fault.

Once phase 2 is complete and you see the color pattern, press Group to exit BIST. Gear will then turn itself on.

BIST is a potential step during troubleshooting. lways recalibrate Gear by setting the open and closed positions after a BIST.

FACTORY RESET

A Factory Reset is a potential step during some more advanced troubleshooting issues. There may be times when it is unclear why the app may not connect to Gear or there may be a potential issue due to indirect hub integrations.

To reset Gear back to factory settings, hold Set+Pair+Group while Gear is *turned on.* Gear will then change its LEDs to red, blue on top and blue, red on the bottom of the Touch Strip. Gear then plays a reset light-show and the unit will reset itself.

Factory Reset erases all schedules and position settings but retains the most recent firmware install.

After a factory reset, the AXIS App can detect that Gear has been reset. If Gear was previously added to the app, and a connection attempt is made to a freshly reset Gear, then the Gear entry will be deleted from the Gears dashboard. All associated schedules will also be deleted. Gear then needs to be added to the app and configured again.

In-App Controls and Features

AXIS App Download

Download

AXIS is available on iOS and Android devices. Before you download the app ensure that you are running either iOS 11.0 or higher on an Apple device or Android 7.0 or higher on an Android device.

To download the iOS version of the app: https://itunes.apple.com/us/app/axis/id1216335329?ls=1&mt=8

To download the Android version of the app: https://play.google.com/store/apps/details?id=life.axis

App Features

Like direct on-device control, the app allows you to calibrate and move Gear. You can even calibrate on-device and make movements in-app or calibrate in-app and make movements on-device.

Features exclusive to the app include:

SETTING SCHEDULES

Set schedules to repeat every week. Schedules can be set for weekdays, weekends, or every day.

GEAR METRICS

View the currently installed firmware, battery levels, stored energy levels as well as name your Gear.

GROUP CONTROL

Create a group with up to 4 separate Gears and control them all at once from the in-app Group interface.

Gear Public Mode and Incognito Mode

Incognito Mode is a privacy feature which helps ensure that only the owner of Gear may add it to their mobile device(s) and that Gears are not visible to people who should not have access to them.

By default, Gear is set to Incognito Mode. While in Incognito mode, Gear will be invisible on the Device Scan list during onboarding and adding to the AXIS app will not be possible. To make Gear visible on the Device Scan screen, it must be put into Public Mode. Public Mode can only be entered if the user has physical access to Gear or has previously added Gear to the AXIS app. This ensures that the rightful owner of Gear has control over which mobile devices can control Gear.

To put Gear into Public Mode, press PAIR on Gear or put Gear into Public Mode from the Gear Settings screen of the AXIS app. While in Public Mode, any mobile device running the AXIS app can then discover Gear on the Device Scan list and add Gear to their Gears Dashboard. Public Mode expires after 60 seconds. After 60 seconds have passed, Gear will go back into Incognito Mode and will be invisible to other mobile devices that attempt to add Gear.

Public Mode and Incognito Mode only affect the AXIS app during the onboarding of Gears. Once a Gear has been added to the AXIS app, that app install will always be able to see and control Gear until it is deleted from the app or the Gear has been factory reset.

In summary, PAIR must be pressed on Gear or the Public Mode command must be sent from the AXIS app every time the owner wishes to add Gear to the AXIS app. Public Mode must be entered each time Gear is added to a new mobile device. Once added, that mobile device will be able to control Gear without entering Public Mode again.

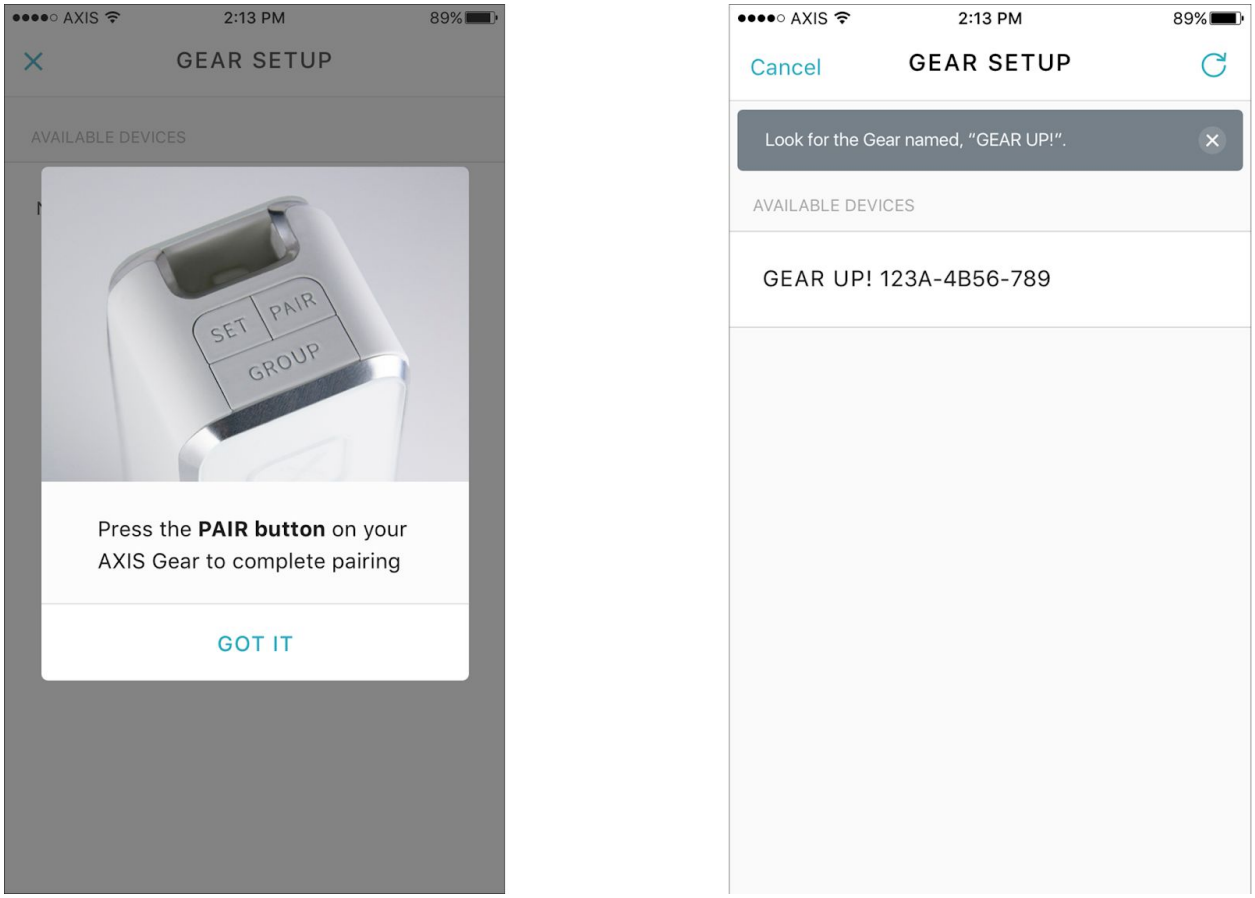


Figure 16 Prompt to enter Public Mode (left), Device Scan screen with one Gear in Public Mode (right)

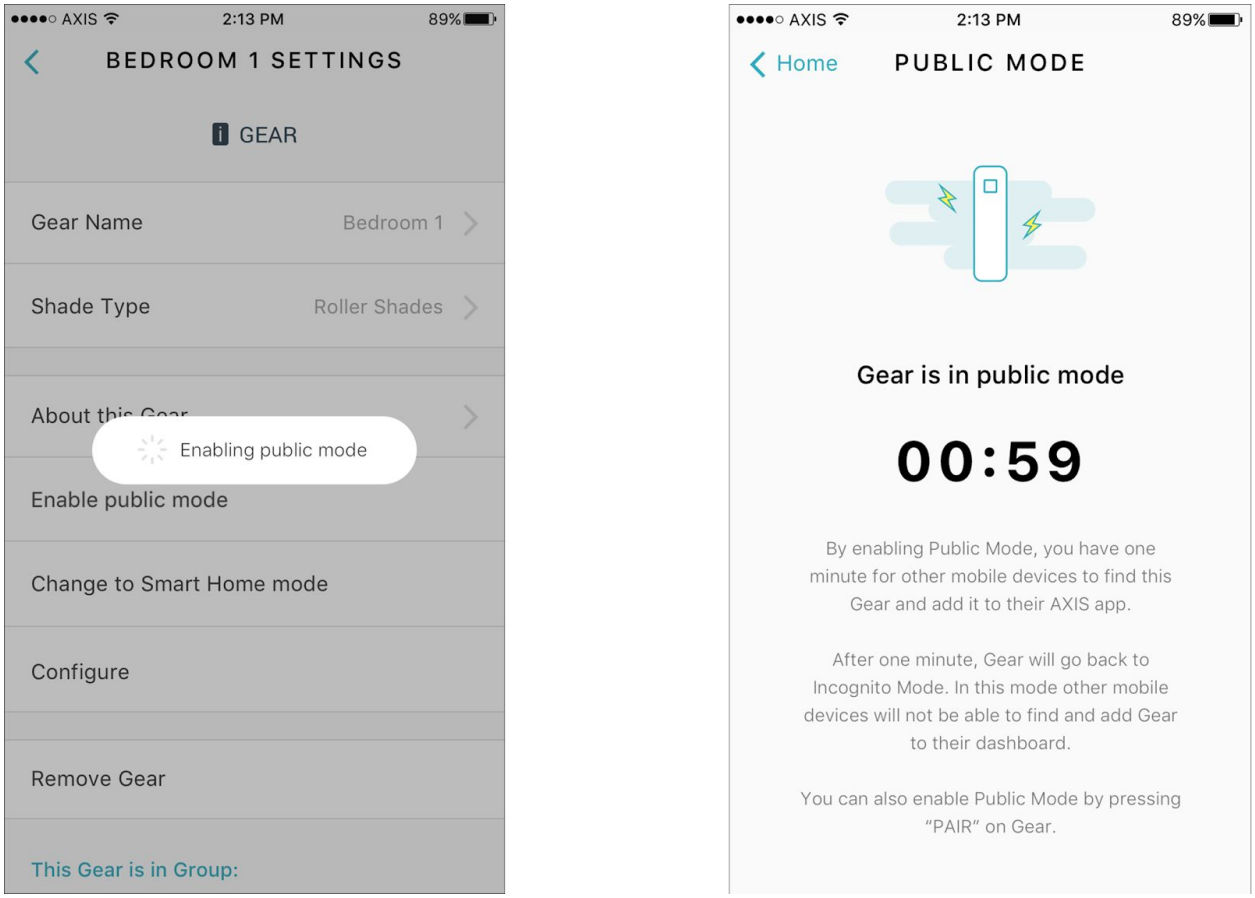


Figure 17 Entering Public Mode via AXIS App

Note that Incognito Mode is a newer feature and only available on Gears running firmware 1122 or newer in combination with either iOS app 1.2.32 or Android app 3.3.5 or newer.

Firmware 1122 or newer - Released 8/2019 and after

Public Mode must be entered before Gear can be added to the AXIS app. Incognito mode is the default.

Firmware 1061 to 1081 - Released between 8/2018 and 3/2019

Gear will always be in Public Mode. Other mobile devices will always be able to add a Gear to their install of the AXIS app. Incognito mode is not possible.

Firmware 1036 or older - Released 1/2018 and earlier

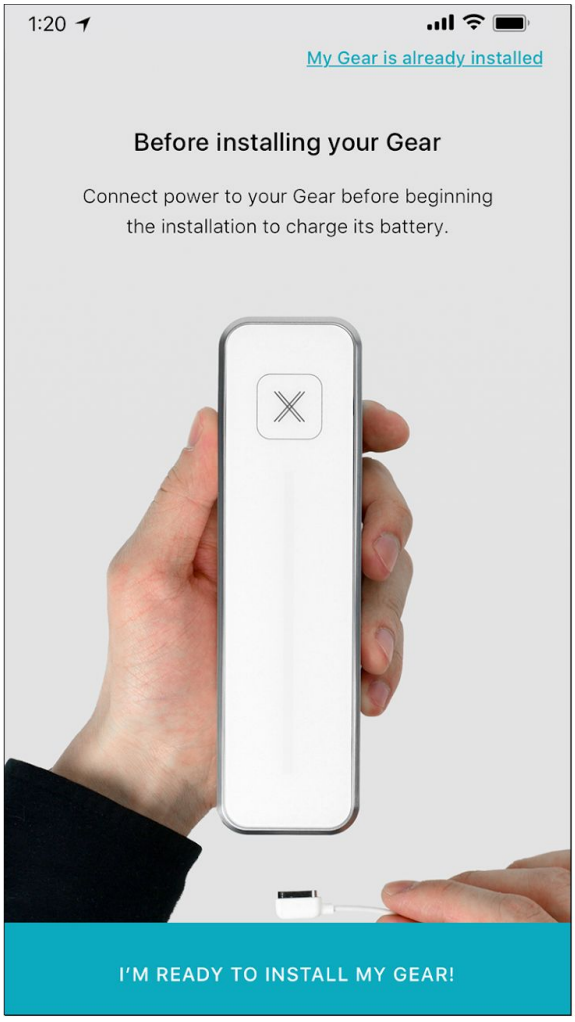
Gear cannot be added to a current version of the AXIS app since it does not recognize the difference between Public and Incognito modes. If a Gear with firmware 1036 has been added to an older version of the AXIS app before an update to version 1.2.32 (iOS) or 3.3.5 (Android), it will continue to work. In this case, a firmware update should be performed IMMEDIATELY. If the Gear has not previously been added to the AXIS app, then AXIS support should be contacted and further steps will be provided.

App Onboarding and Device Pairing

APP ONBOARDING

When launching the app for the first time, you are prompted to enter an email address. We use this email address to send out occasional updates about Gear and to gain insight into how Gear is used by our customers.

After entering an email address, the app displays a brief introduction to Gear as well as an interactive installation guide. The installation guide can be accessed at any time later on by navigating to "Installation" from the app menu.



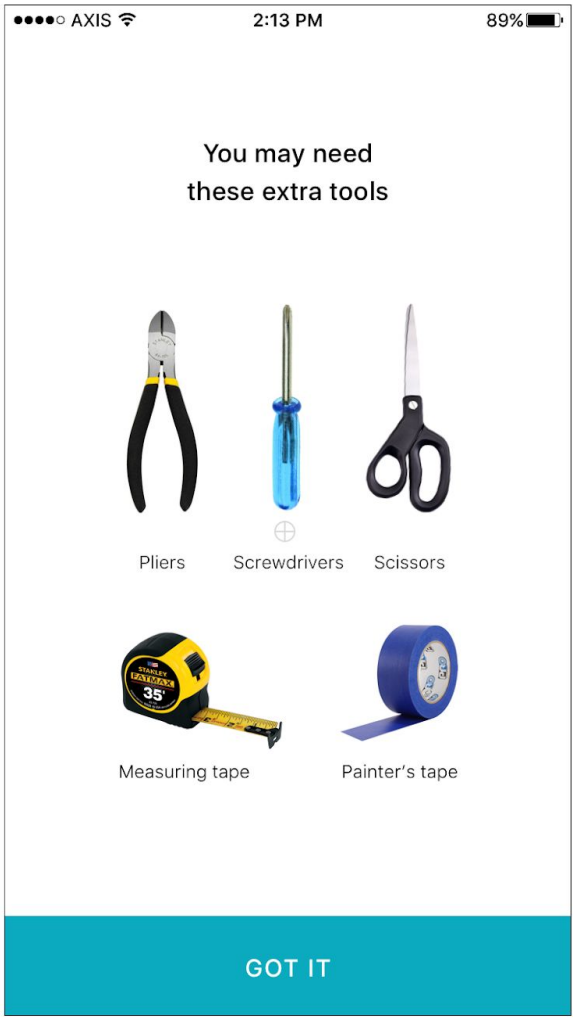


Figure 18 Installation Guide

DEVICE PAIRING

Once the Installation Guide has been completed, the app displays a prompt to press PAIR on Gear, scans for nearby devices and begins the pairing and configuration process.

Bluetooth and Location Services must be on. The app requires access to these features. The app asks for these permissions if it doesn't already have the required access. Note that the device scan and pairing process automatically appears after first-time app onboarding.

On future app launches a new Gear may be added to the app by pressing the Plus icon on the Gears screen.

1. Press the physical PAIR button on Gear to place Gear into Public Mode so that it is visible to the AXIS app. On the Device Scan screen, select the "GEAR UP!" device from the device list. You may need to refresh the device list if you don’t see it listed. If you have multiple devices, there may be several GEAR UP! listings on this screen. Each listing corresponds to a different Gear. Once a device is selected, the respective Gear will flash its LEDs white two times to signal a connection.

If you do not see your devices on this list, ensure that Gear is powered on and plugged in, is not in Smart Home Mode, is not already added to the AXIS app, and try again.

Figure 19 Device Scan

2. Identify which room Gear is in and choose from a list of room names. You may also give Gear a custom name or room by selecting "Custom."

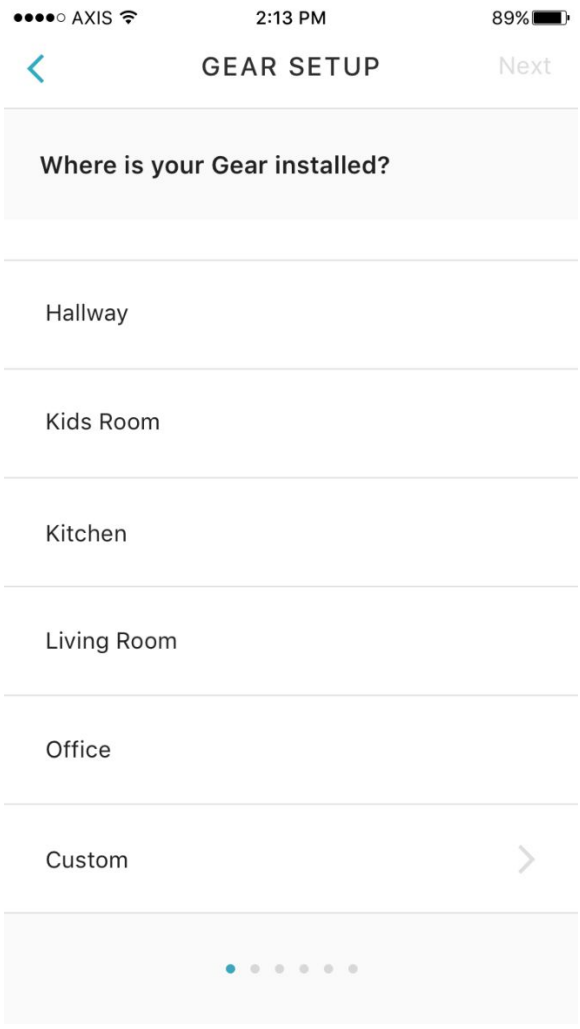


Figure 20 Room Identification

3. Select your window covering, mount type and power source. If the name of the exact window covering isn't available, select the option that is closest to the desired choice. Additionally, let Gear know the type of mounting position by selecting the closest available mount type. Finally, select the power source when the option is presented. This selection determines how the battery level readout function works.

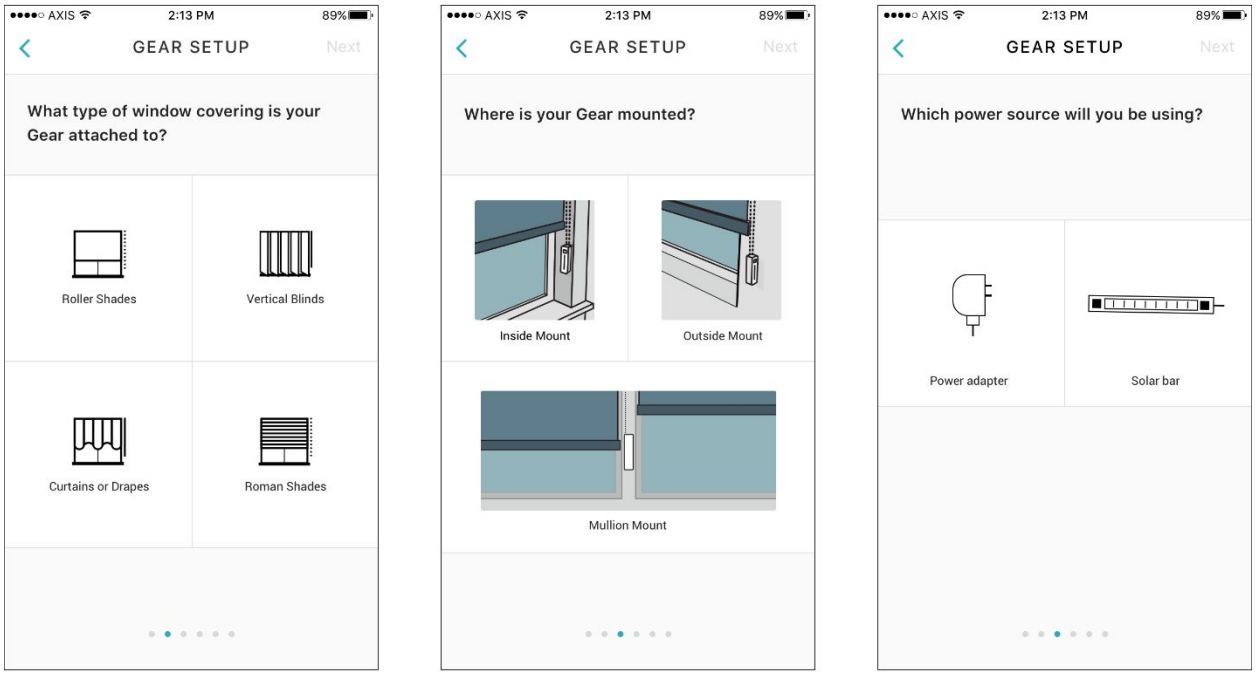


Figure 21 Window Covering (left), Mount Type (center), Power Source (right)

4. Use the arrow buttons to set the opened and closed positions for the shade. To begin, tap or hold the up button until Gear reaches the fully-opened position of the window shade. Once done, tap next.

If the shade closes when you tap the up button, select the checkbox below the arrow buttons that says “Reverse Directions.”

On the next screen, tap or hold the down button until Gear is in the fully-closed position. Once it is in the desired location, tap next. Gear will then confirm its new calibration points by flashing all LEDs green twice. Gear is now ready for use.

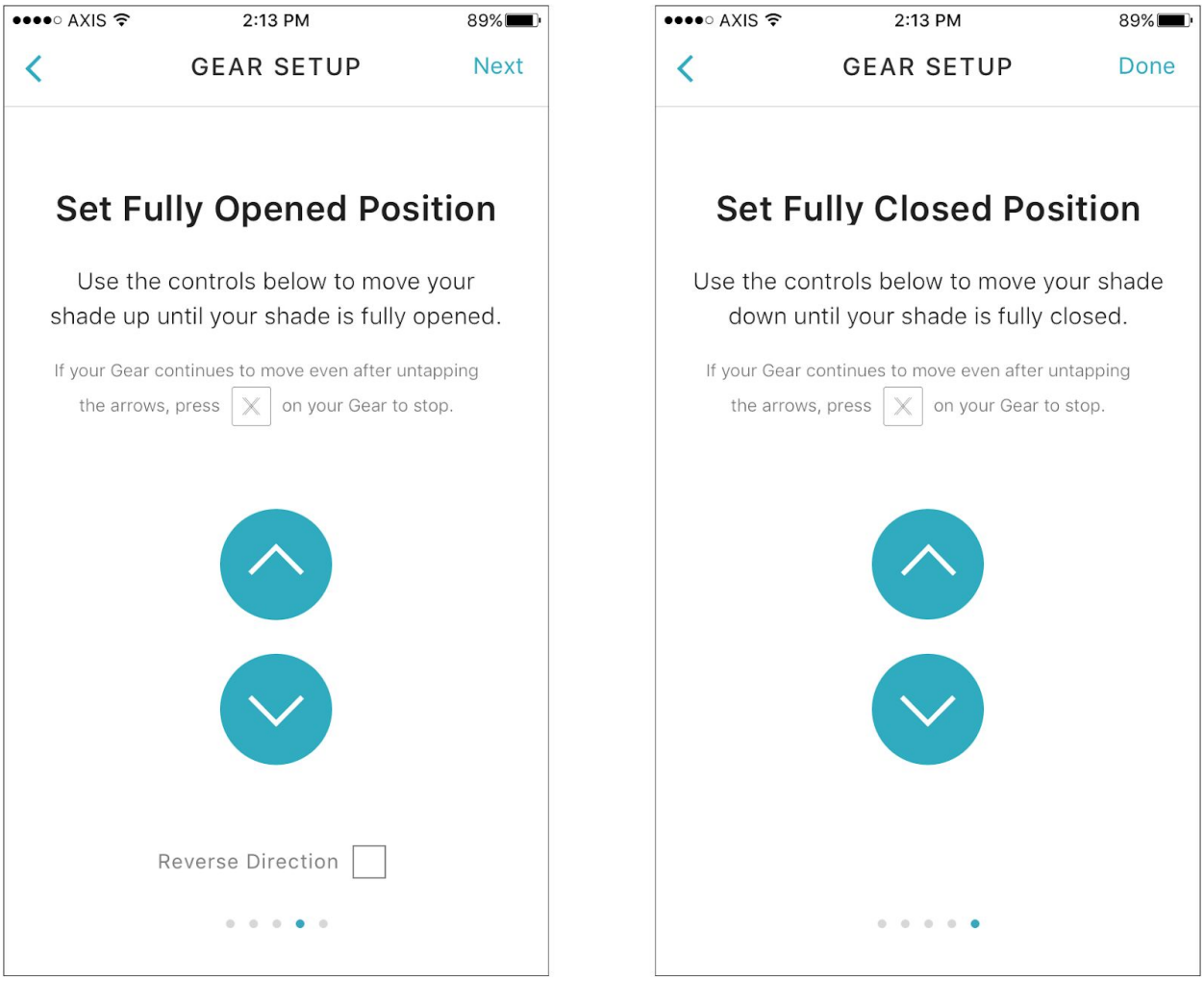


Figure 22 Set Open Position (left), Set Closed Position (right)

5. After setup, the Gear location or custom name appear on the Gears Dashboard.

To add additional Gears, press the Plus sign on the bottom right of the screen and follow the instructions again.

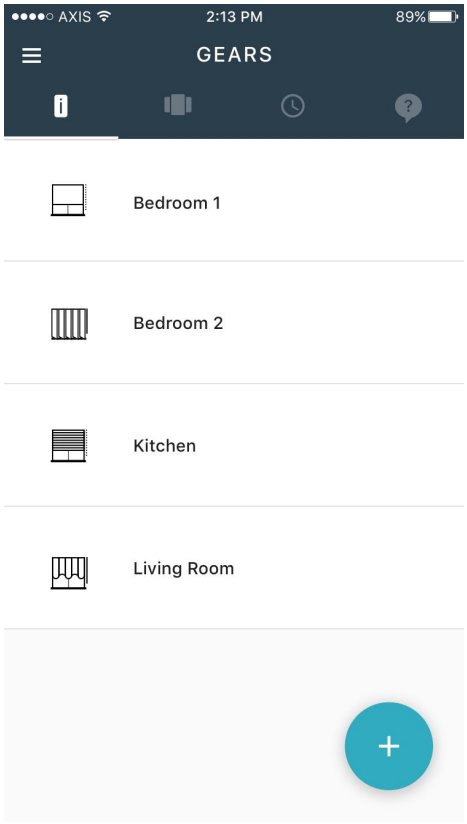


Figure 23 Populated Gears Dashboard

https://youtu.be/UOY-i8ySm30

ADDING A PREVIOUSLY CONFIGURED GEAR

Gear retains its given name and calibration points on-device. This means that the app recognizes a previously configured Gear and does not require you to set the name or top and bottom positions again. If a previously configured Gear is added to the app, an abbreviated onboarding process is offered.

Note that the previously given name of Gear will not show up in the Device Scan screen. All Gears will still be listed as GEAR UP!. However, the given name or location will be retrieved after Gear has been selected.

If a *partially* configured Gear is added to the app, a slightly longer abbreviated onboarding process is offered. You do need to set the top and bottom positions in this case. The partially configured case is rare, however.

Abbreviated onboarding processes make use of the same screens as described above.

The one exception to the above is if Gear was previously calibrated and then factory reset. In this case, the app considers Gear as brand new and will once more require a full configuration.

In-App Gear Control

Once Gear is successfully paired with the AXIS app, connect to it from the main Gears Dashboard.

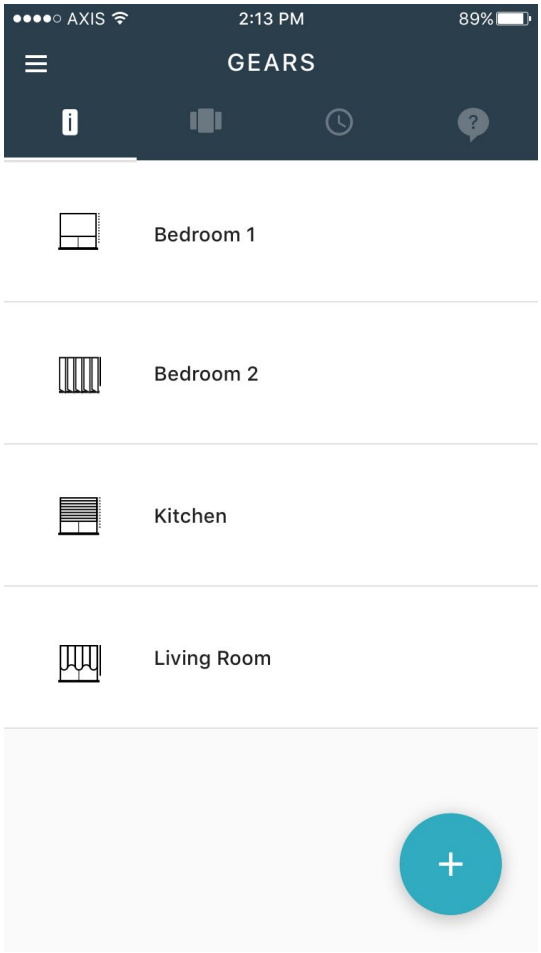


Figure 24 Gears Dashboard

Upon connecting to Gear, the app displays a Control screen. To open the shade, move the slider to the top. To close the shade, move to the bottom. For more precise movement, move the slider to any position in-between.

Unlike the on-device controls with five possible positions, the app offers movement to anywhere on the slider.

Either the slider or the arrows on the right can be used to control Gear. The slider provides control anywhere on a scale of 1-100, the arrows will only move the shade in 25% increments.

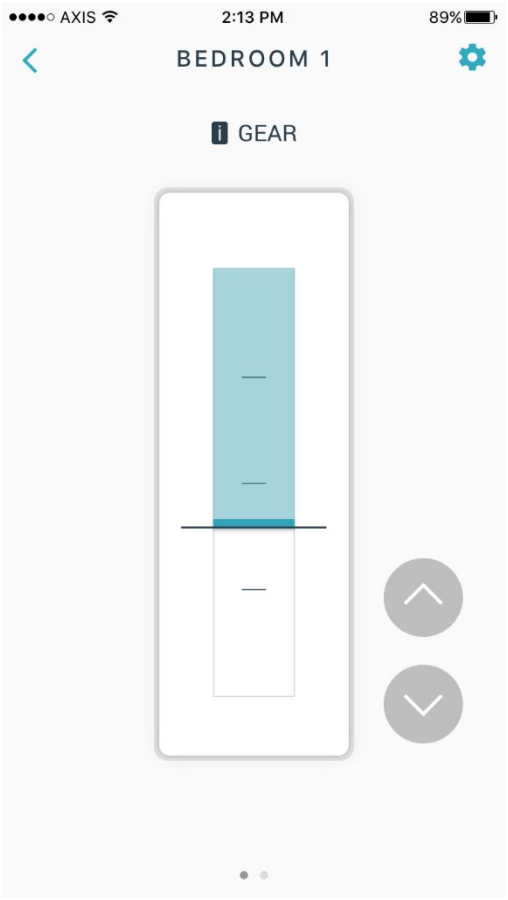


Figure 25 Gear Control Screen

Gear Settings

To access Gear Settings, press the Gear icon on the top right of the Gear Control Screen. Gear Settings can be used to change the Gear name or shade type, reconfigure Gear, enter Smart Home Mode, delete Gear from the app and to view further details about Gear.

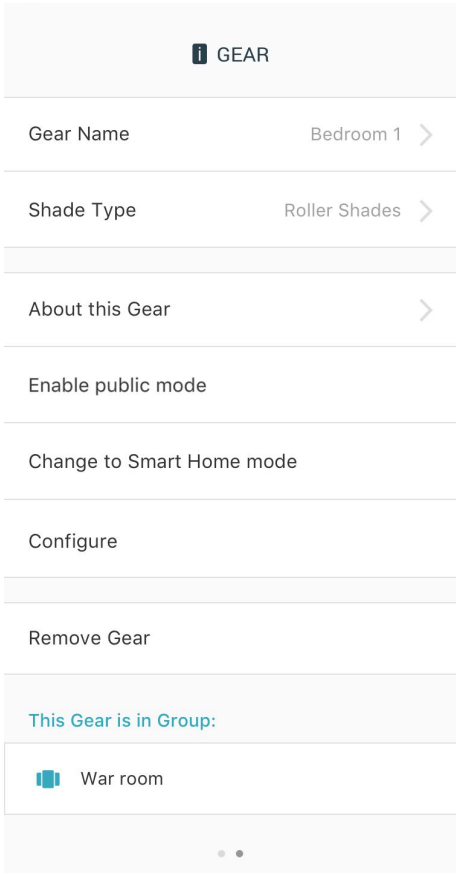


Figure 26 Gear Settings

CHANGE GEAR NAME

Select “Gear Name” and change this to a preferred name or location.The Gears Dashboard reflects this change.

CHANGE SHADE TYPE

Select “Shade Type” and choose a different window shade type. This changes the icon of the Gear on the main Gears Dashboard.

ABOUT GEAR

This displays details about Gear. This information relates to diagnostics, troubleshooting, and general Gear maintenance. A further chapter explains this in more detail.

RECONFIGURE GEAR

Select "Configure" to reconfigure Gear. This is a reconfiguration process similar to the one described in the previous chapter and allows you to change the top and bottom Gear calibration points.

ENABLE PUBLIC MODE

This puts Gear into Public Mode for one minute. Public Mode allows other AXIS app installs running on other mobile devices to add Gear. This performs the same function as pressing the physical PAIR button on Gear.

CHANGE TO SMART HOME MODE

This puts Gear in Smart Home Mode so that it may connect to smart home hubs. A further chapter explains this in detail.

REMOVE GEAR

Select "Remove Gear" to delete Gear from the app. When selected, Gear retains its stored positions and name or room. However, all associated schedules will be removed from Gear.

The Gear may still be used using on-device controls or any other mobile devices which may have the AXIS app and the specific Gear paired.

Note that removing Gear from one mobile device deletes **all** schedules.

For example:

Two Mobile Devices have the same Gear added to their installation of the AXIS App

Mobile Device A sends a schedule to Gear

Mobile Device B then deletes Gear from their app

Gear will no longer have the schedule previously sent by Mobile Device A, which is still saved in the Schedules tab of the app.

In this case, the schedule needs to be sent again from Mobile Device A

Gear Details Readout

Gear details are accessed from the Gear Info screen. To access this screen, connect to Gear, navigate to Settings, then select "About This Gear."

This screen holds information regarding the Firmware version, the types of integration which the selected Gear supports, and the battery levels of the device and AA batteries. This information may be useful during troubleshooting.

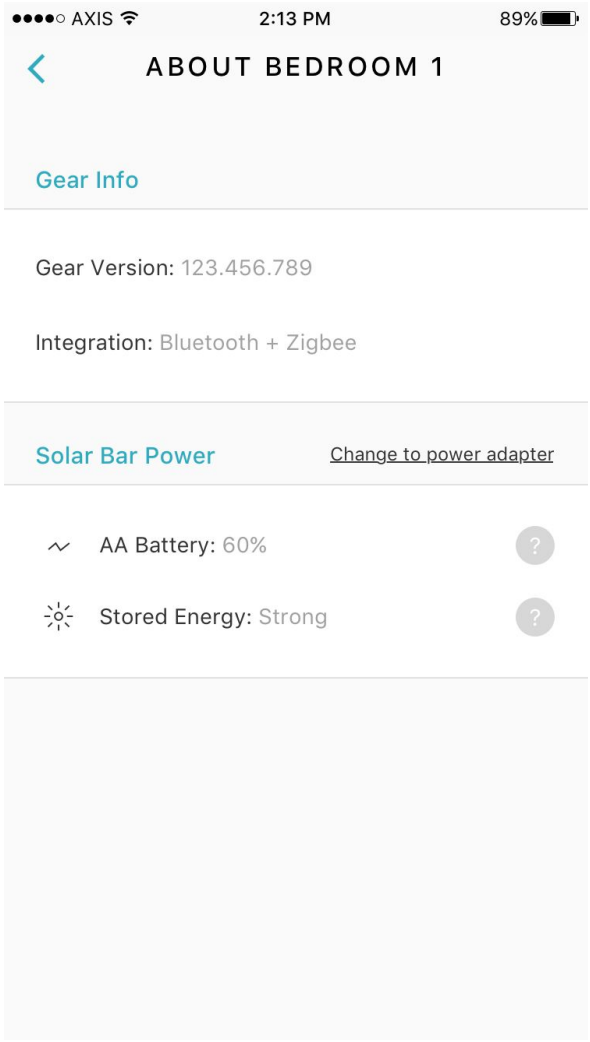


Figure 27 Gear Details

Firmware

This field displays the current firmware installed on Gear. If there is new firmware available, then

the Gear listing on the Gears Dashboard will display an update message.

Integration

This field displays the types of integrations which are supported by the selected Gear. AXIS Gear SKUs support either Bluetooth and ZigBee or only Bluetooth. These integrations are tied to hardware. There is no way to add ZigBee support to a Bluetooth-only Gear SKU.

Battery Power

This section displays the battery level of the AA batteries and the power stored in the Solar Bar. This is explained in-depth in the "Battery and Charging" chapter of this course.

Schedule Entry

To create a schedule, navigate to the Schedule tab by tapping on the clock icon from the main Gears dashboard, or swipe over to it from your current screen. From here you can review, edit and remove all the schedules you have created for your Gear.

CREATE A SCHEDULE

To begin, tap on the plus button at the bottom right corner of the screen to create a new schedule. Note that the images below do not show this button.

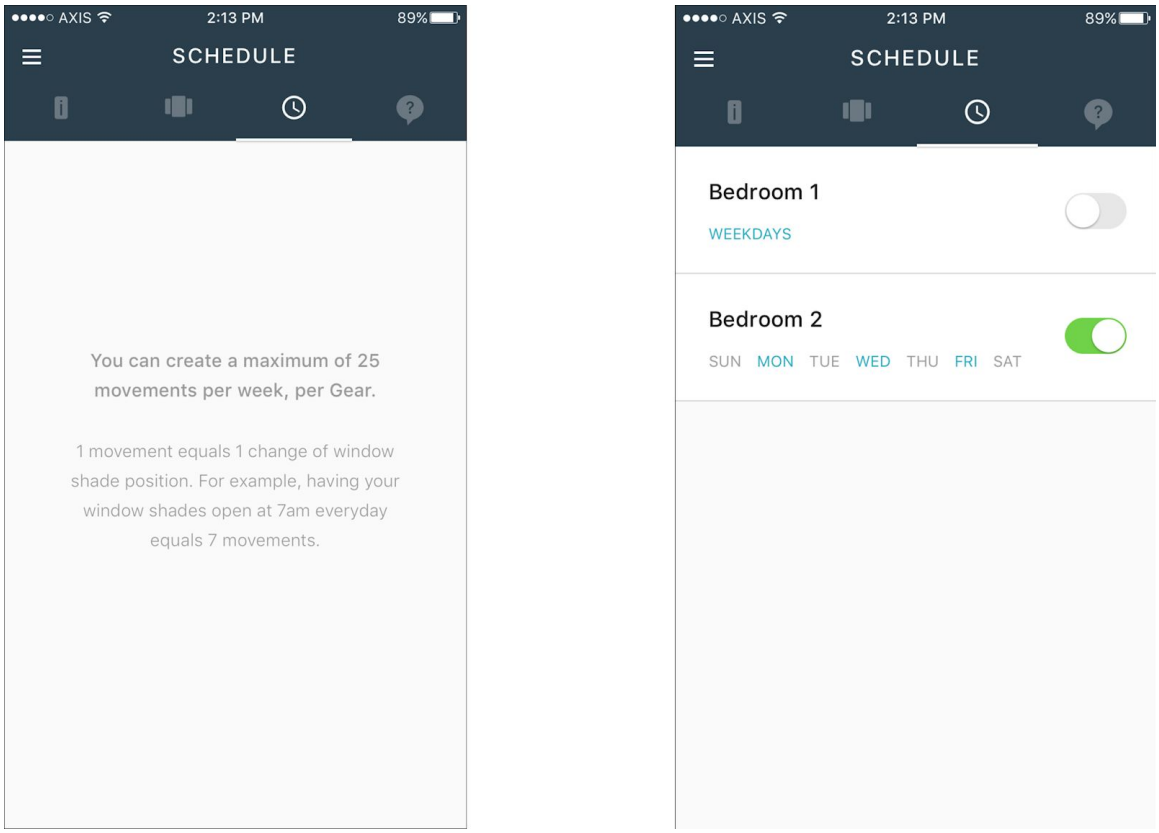


Figure 28 Empty Schedule Screen (left), Populated Schedules Screen (right)

Select the Gear you would like to set a schedule for.

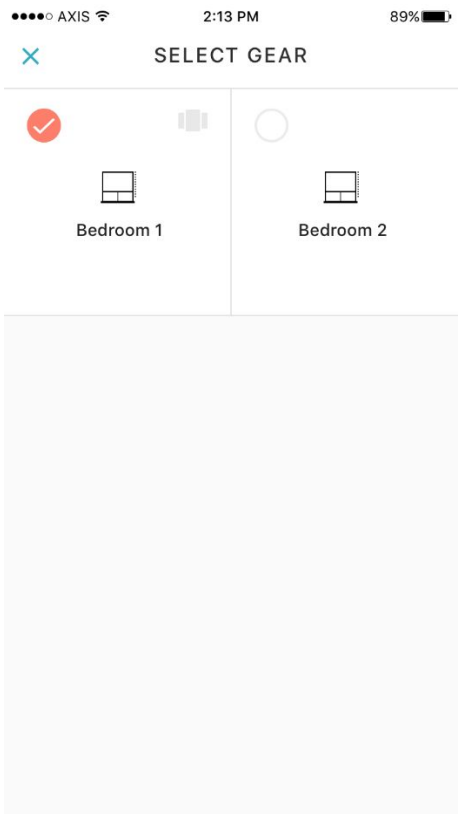


Figure 29 Schedule Gear Select

Choose a template. The AXIS App has a variety of templates and options for setting schedules. You can choose between pre-made templates to modify, or you can create a new schedule from scratch by selecting the blank template.

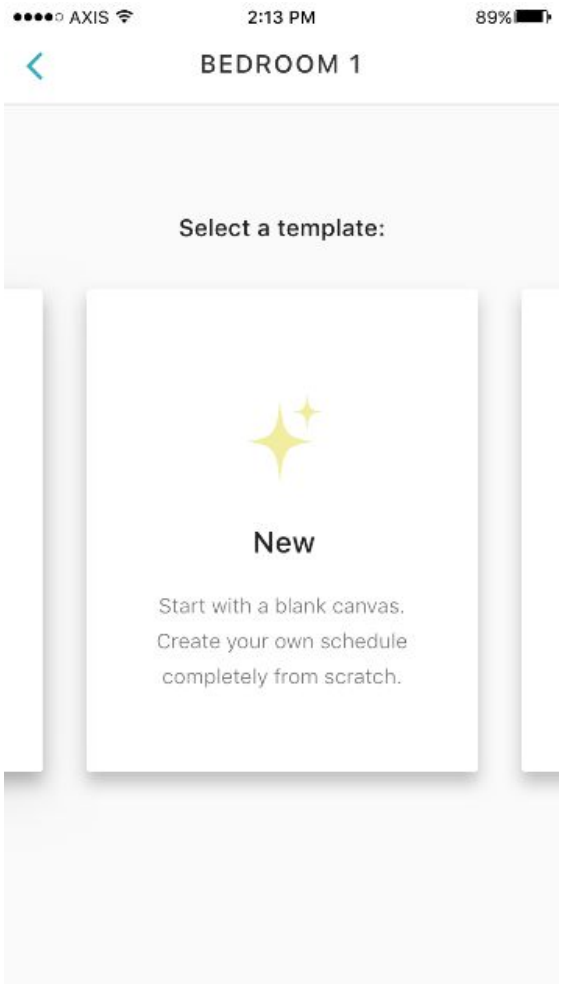


Figure 30 Template Select

Set a Schedule. Adjust which days the schedule should run by tapping any of circles in the top row. Set the time and position for each schedule entry.

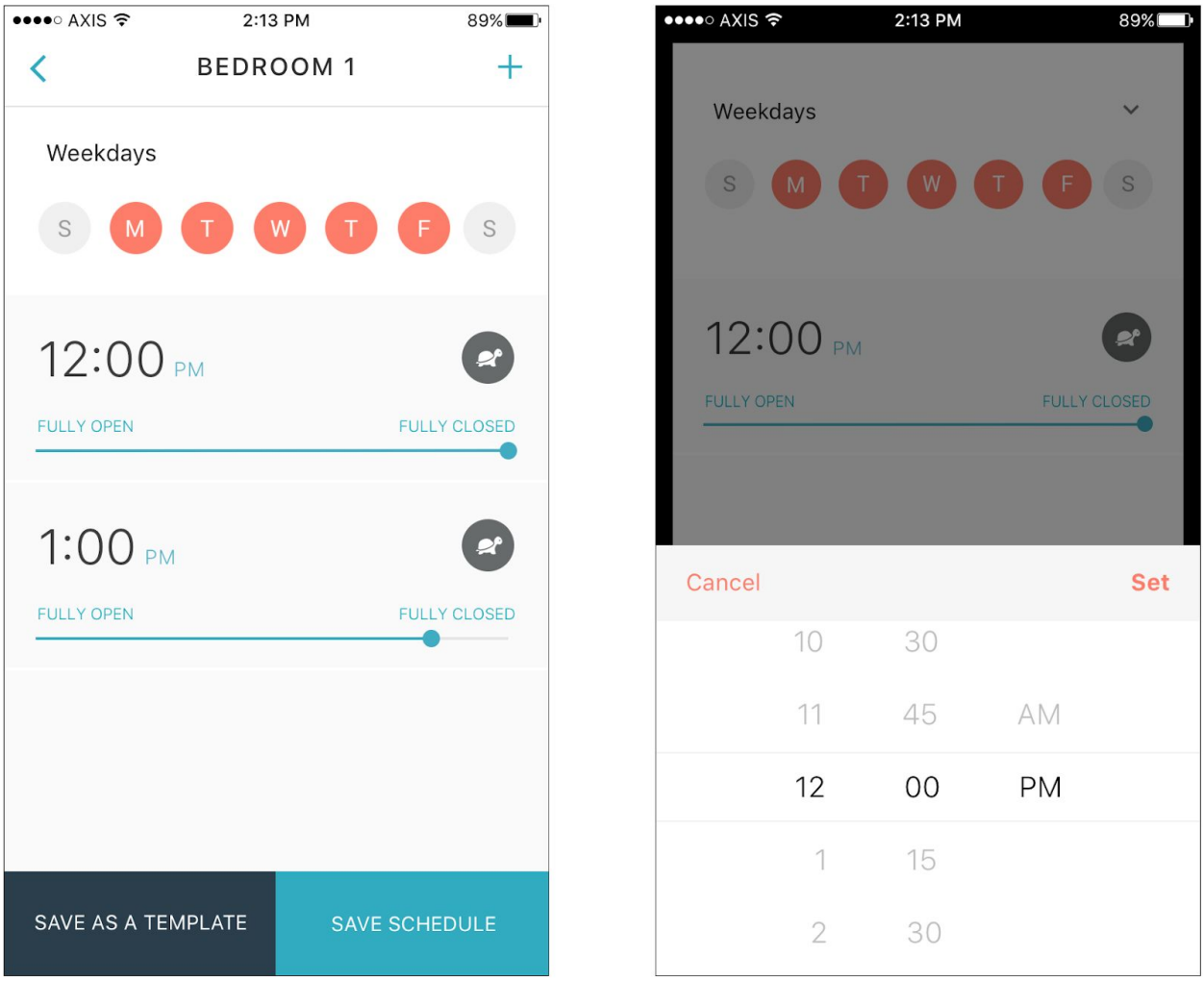


Figure 31 Schedule Creation (left), Set Time (right)

Press “Save Schedule” to send the schedule to Gear. The app then displays a confirmation message stating when the next movement is set to fire. Gear will flash all LEDs Green to confirm that it received the schedule.

Press “Save as a Template” to save the schedule as a premade template. After naming the template, it becomes available on the Select a Template screen. Saving as a template is useful if you wish to save the same schedule to multiple Gears.

If you save as a template, the schedule is not sent to Gear. In this case, you need to go back to the Schedules screen and restart the process. You will then be able to select your saved template and save it with Gear.

TOGGLE A SCHEDULE ON AND OFF

To toggle a schedule off and on, press the radio button beside the saved schedule. The app will then display a confirmation message and Gear will flash all LEDs green to confirm that it received the updated set of instructions.

DELETE A SCHEDULE

To delete a schedule long press any schedule entry. The AXIS app will display a popup message asking to confirm. If the schedule was toggled off, then it will be deleted immediately. If the schedule was toggled on, then Gear will flash green LEDs to confirm the change on its end and the app will display a confirmation message.

SCHEDULE LIMITATIONS AND FURTHER TECHNICAL INFORMATION

Schedules are sent through Bluetooth. For Gear to receive a schedule command, the mobile device must be within Bluetooth range.

Each Gear can only save 25 movements every 7 days. A movement is defined as any time that Gear moves the shade. For example, 7 days with one open and one close per day equals 14 total movements. (7 days x 2 movements a day). This is regardless of how many actual schedule entries are created in the AXIS app: all of the 25 allotted movements can go one "Everyday" schedule or there may be 25 individual lined entries set, each with one movement. It is up to the user to determine how to best organize their schedules in-app. Ultimately, every single movement sent to Gear is saved on device within the same schedule manifest.

Schedules are created on one or more mobile device(s) but ultimately are saved directly on Gear as one single schedule manifest. What this means is that if a single Gear syncs with several mobile devices and all mobile devices are sending schedules, then they are competing for the single saved schedule manifest on Gear. Gear only adheres to the last received schedule packet.

If Phone A sends a schedule for 10 am, and phone B then sends a schedule for 4 pm, then only the last schedule received by Gear is saved and valid. This is even though phone A still shows a saved schedule of 10 am.

Currently, there is no way to sync schedules between multiple mobile devices. Gear only recognizes the last schedule packet sent, regardless of where it came from.

Schedules rely on a clock that has its time saved in Gear. The time saved on Gear deletes if Gear turns off, is reset, or its firmware is updated. Without a time saved on Gear, it does not fire any schedules. Schedules must be sent again after any of the mentioned actions. The schedule entries remain accessible in the AXIS App, but they need to be sent again to sync the time.

Gear does not update time automatically. Gear syncs its time with the mobile device at the moment that the schedule sends. For example, if the true time is 4 pm, but the phone had a saved time of 3 pm, the Gear adheres to the time saved on the phone and the schedule fires at an incorrect real-world time. Every time a schedule is sent, the time is resynced. Because of this, Gear does not automatically adjust for any form of daylight savings time. A schedule must be sent again to sync the newly adjusted time.

If there is an error in sending a schedule, the mobile app shows a red exclamation mark beside the schedule packet. In this case, the app does not know one way or another whether Gear successfully received a schedule. It is possible that Gear did not receive the packet or that the app did not receive a successful reply. If this happens, you need to reattempt sending that specific schedule entry.

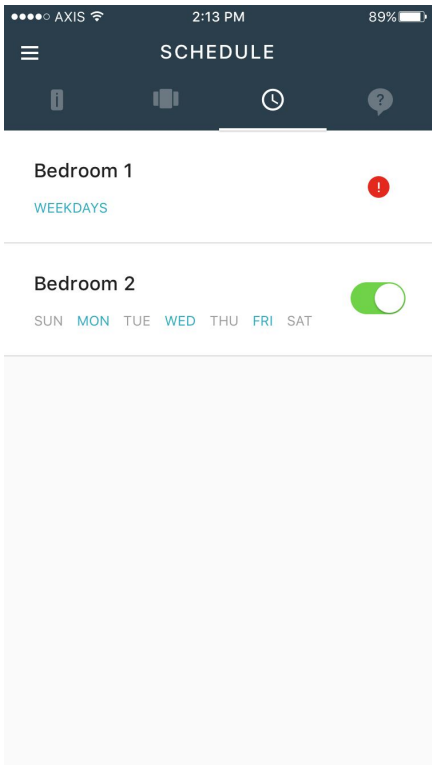


Figure 32 Failed Schedule Indicator

Group Control

Access Group Control from the main Gears Dashboard. Select the middle Group icon or swipe over to the middle section.

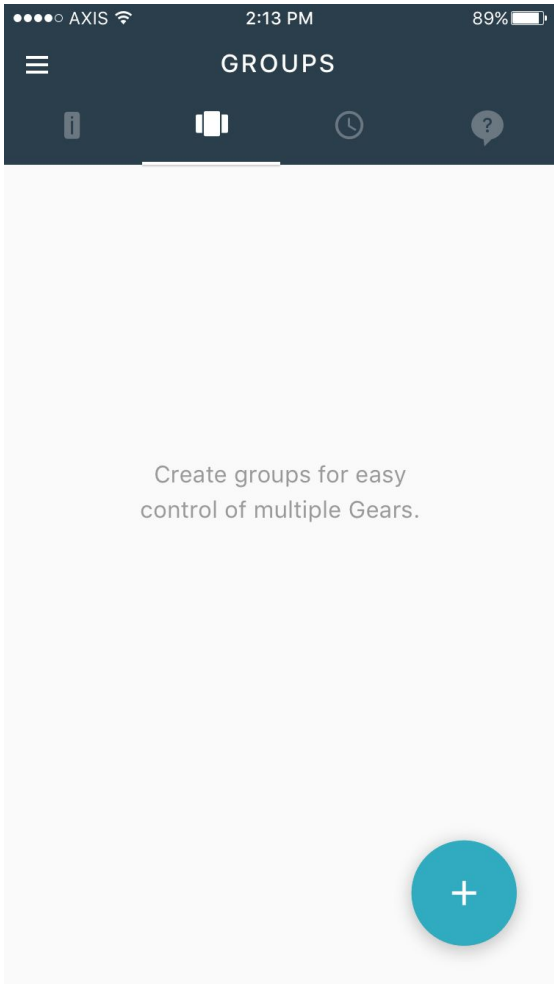


Figure 33 Empty Group Screen

CREATE A GROUP

Press on the white + icon in a blue circle and name the group.

After you name the Group, select the participating Gears. Only Gears which are in range of the mobile device are selectable. On iOS, the Select Gears screen actively scans for nearby Gears and displays a small “searching” icon. If the Gears you wish to add have not been detected as in range, then restart the group creation process and ensure you are within a few feet of the Gears you wish to add. Press Done once Gears have been selected.

Android does not actively scan during the creation process. This scan is only done one time before the Gears list appears on the screen. For this reason, it is imperative that the mobile device stays in the same location while a Group is being created. If the mobile device moves around the room, then the Gears which are shown to be in range may fall out of range by the time the Group is created.

Multiple Groups can be created, each with a set of Gears assigned. A Gear can only participate in one Group at a time.

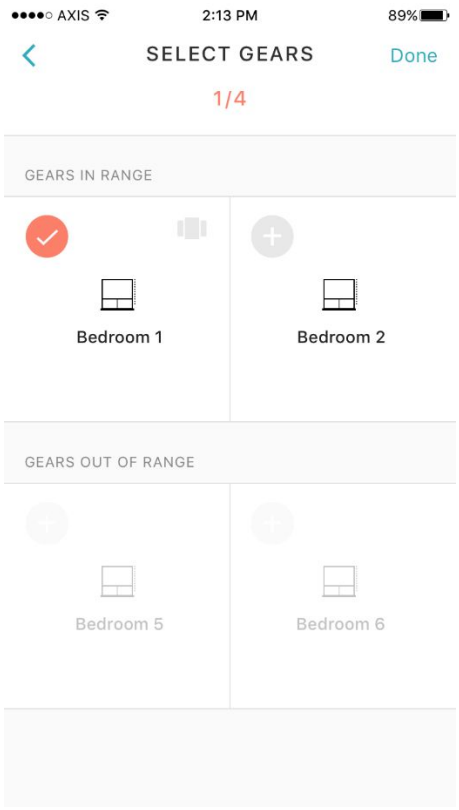


Figure 34 Gear Select for Groups

After creating a Group, the app displays a Connecting screen. This screen immediately attempts to connect to Gears added to the new Group. Once all connections have been made, the app will automatically display the Control screen. This screen works in the same way as the Control screen for individual Gears. Sliding up opens the shades and sliding down closes them.

At this point, if only some Gears or no Gears can be connected to, the screen will provide a “Try Again” button. On creation of a new group, the app requires that the complete Group can be connected to before the Group can be controlled for the first time. This limitation acts as a check to ensure that the Group works as configured.

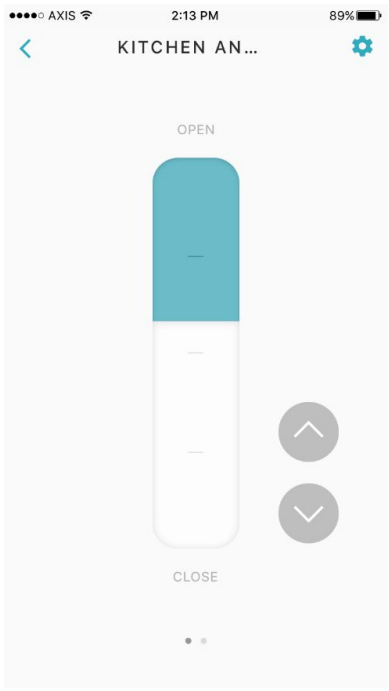


Figure 35 Group Control

After creating a Group and initiating the first connection, the Group will appear on the Groups screen under its own tile.

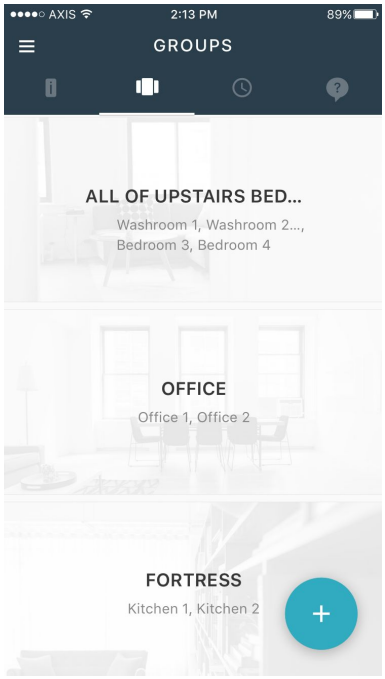


Figure 36 Populated Groups

CONNECT TO AN EXISTING GROUP

To connect to an existing Group, select the desired Group tile. The app then displays a connecting screen to ensure that all Gears are in range and attempts connection to each Gear. This scan takes several seconds. Once all Gears connect, the app will automatically display the Group Control screen.

If all Gears are not in range, or otherwise can't be connected to, then the app lets you proceed with only the Gears with active connections. Alternatively, you may retry the scan. This feature is in contrast to creating a new Group where all Gears must first be connected to. An existing Group can proceed to the Group Control screen if partial Group control is acceptable by the user.

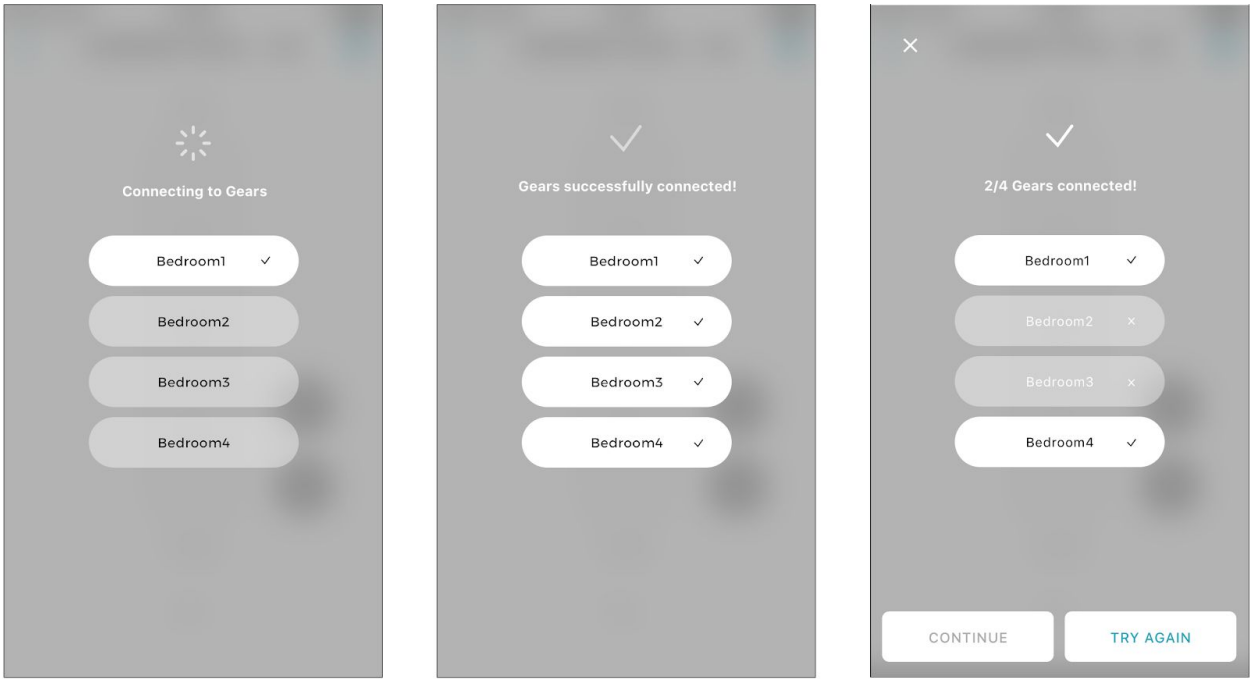


Figure 37 Group Scanning (left), Successful Connection (Center), Partial Connection (Right)

EDIT A GROUP

Edit a group from the Group Control screen. From the Group Control screen, navigate to Group Settings and select "Edit" next to "Gears in this Group."

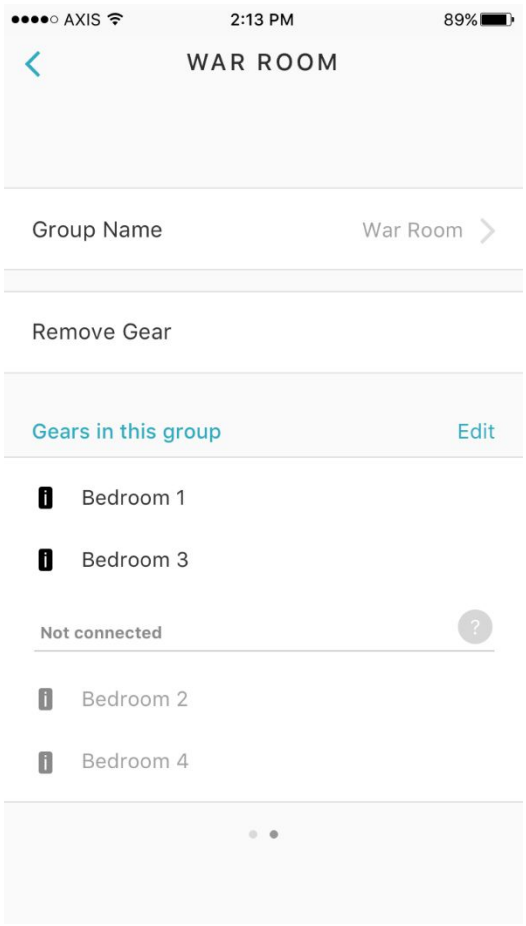


Figure 38 Group Edit Screen

DELETE A GROUP

Delete a Group from the Groups Dashboard. Long press the Group tile and then when prompted to delete the Group, select “Delete”.

GROUP LIMITATIONS AND FURTHER TECHNICAL INFORMATION

Bluetooth connectivity is needed to successfully use the Group feature. The mobile device must always be within Bluetooth range of every Gear in the group.

Multiple Groups can be created but a Gear can only belong to one Group at a time.

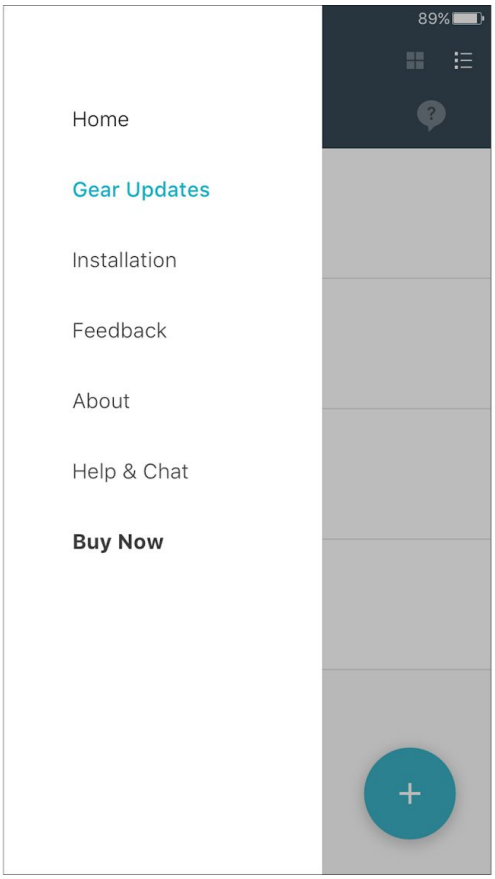
Group works under the impression that the mobile device stays in the same location while connecting. Connection status does not update from the control screen. For example, if you connect to a group and see that all Gears are connected successfully, moving away from the Gears will drop a connection to one or more Gears. The app does not notify you of this.

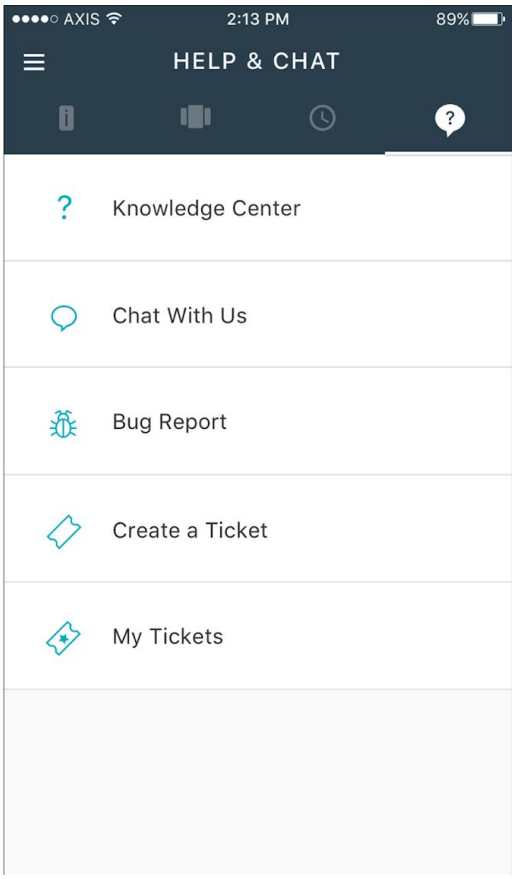
Another example is if you partially connect to an existing Group (i.e., 2 of 4 Gears) and then proceed with the control screen. Moving closer to the Gears which did not connect does not initiate a connection to those Gears. The Group device scan must be initiated again. Back out from the control screen and select the group once more.

Help and Live Chat

In-App Help Section

To access the Help & Chat section, swipe over to it from the main dashboard. Alternatively, open the app menu and select “Help & Chat”.





The Help section offers a comprehensive Knowledge Center, a variety of ways to contact AXIS and a support ticket management tool.

Knowledge Center

The Knowledge Center is a compendium of the support articles found on the AXIS website. These organized by topic, presented in a mobile-friendly format, and are searchable. Additionally, release notes for iOS apps, Android apps, and firmware are found in this section.

The Knowledge Center is the primary resource for users who wish to learn how a specific feature of Gear works (for example, “Creating Schedules”, “Group Control”, “Integrating with

SmartThings” etc), or who are seeking general information about Gear (for example, “How to Best Hide The Power Cable”, What do the Light Patterns on Gear Mean?”, etc).

Finally, this section of the app also serves as a troubleshooting guide as many topics are explained in great detail and include helpful suggestions for optimal Gear operation and health.

The Knowledge Center should be the first place that users visit if they are experiencing any issues with Gear, want general information, or are looking for information before making a purchase decision.

Chat With Us

Select “Chat With Us” to initiate a chat with an AXIS customer support agent. This feature is only available during AXIS business hours. During chat, the user may use their phone as usual or browse other sections of the AXIS app. A notification will appear once a reply is received.

On Android, the AXIS app must remain open in the background for these notifications to appear.

If a Chat is initiated outside of business hours, this section provides a prompt to leave a message.

Chat is useful for general troubleshooting questions, questions about purchasing Gear, or support with specific features of AXIS Gear and the AXIS apps. If an issue can not be resolved through chat, AXIS staff may convert the contents of Chat to a Ticket.

Submit a Bug Report

This section sends a bug report to AXIS engineers. It is critical that bug reports are sent through this form instead of chat or email.

Along with a brief message, this form submits information about how the app was behaving immediately before and during the observed bug via a log file. This additional information is vital as the AXIS team will have a deeper understanding of how to tackle the problem at hand.

This section is useful if a user is experiencing a recurring bug that is repeatable. Additionally, a customer support agent may ask for this form to be submitted during Chat or Ticket correspondence.

A Bug Report may also be submitted at any time while using the app.

On iOS, swipe left with two fingers from any screen

On Android, shake the device from any screen

This will instantly display a Bug Report screen where a report may be submitted.

Create A Ticket

Select “Create a Ticket” to leave a detailed message of any issues related to AXIS Gear and AXIS apps. There is an option to attach a file as well. Tickets can be created at any time, including outside of business hours.

Ticket Creation is useful for complex issues or inquiries which may not easily be solved through a chat session, or at times when an immediate reply is not needed.

My Tickets

If there are any open Tickets, this section will provide a log of all correspondence. Any replies from the AXIS team will be available in this section and follow-up messages may be submitted.

Smart Home Integrations

Smart Home Mode Intro

Gear can integrate with leading smart home hubs. Supported hubs include Amazon Echo Plus, Control 4, and SmartThings.

It is important to note that while in Smart Home Mode, Gear is not responsive to commands coming from the AXIS app. The AXIS app uses Bluetooth to command Gear, while Smart Home Mode makes use of ZigBee. Smart Home Mode essentially toggles Gear between these two protocols. While in Smart Home Mode, on-device controls continue to function and Gear can still be re-configured with the on-device buttons.

Converting Gear to Smart Home mode or back to Bluetooth mode retains its previous open and close positions. Schedules are deleted.

To check whether Gear is in Smart Home mode, press Pair. If you see the LEDs flash purple, then Gear is in Smart Home Mode. If they flash blue, then it is in Bluetooth mode.

ENTER SMART HOME MODE

There are three ways to put Gear into Smart Home Mode. Gear must be configured before it can enter Smart Home Mode.

1. Hold Group+Pair on Gear

2. After in-app onboarding and initial Gear calibration, the AXIS app asks if you wish to convert Gear to Smart Home Mode. Select the Smart Home option (Hub).

3. After connecting to Gear in-app, from the control screen navigate to Gear Settings and select Change to Smart Home Mode.

Gear flashes all LEDs purple to confirm that it has switched modes. At this point, the AXIS App can no longer control Gear.

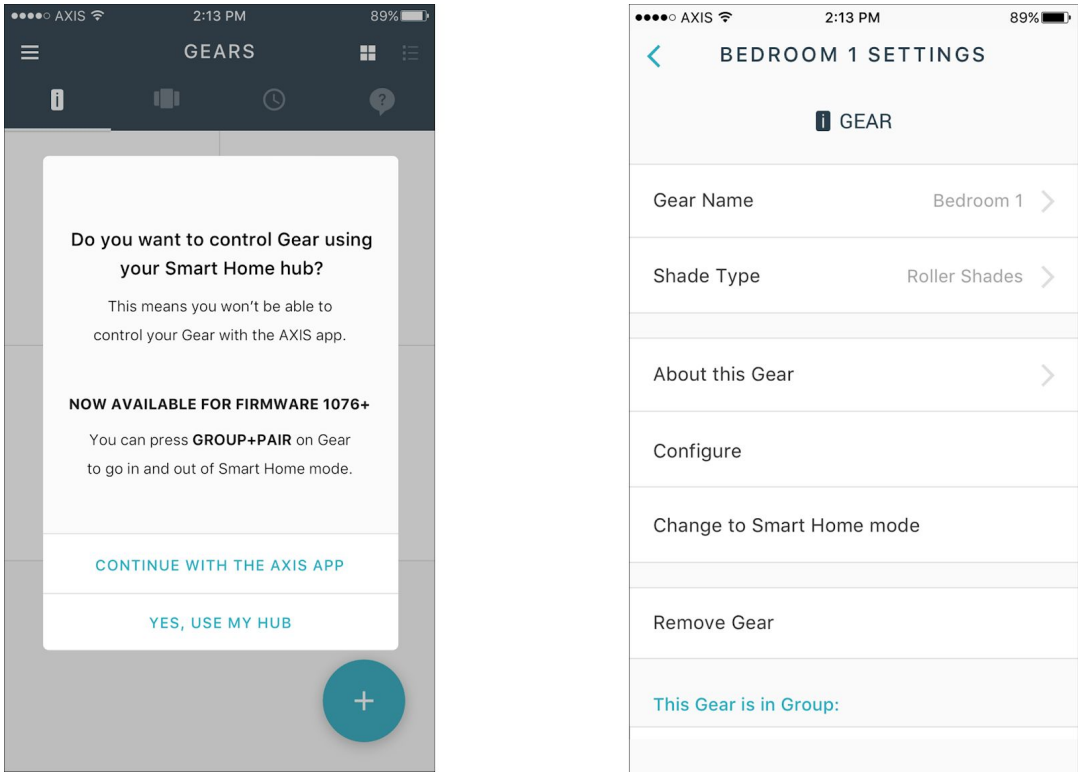


Figure 39 Smart Home Mode popup after initial calibration (left), Gear Settings screen option (right)

EXIT SMART HOME MODE

To exit Smart Home Mode, hold Group+Pair on Gear. The Gear responds by flashing all LEDs blue to confirm that it is back in Bluetooth mode.

Amazon Echo Plus

Important: Direct integration only works with Echo Plus and Echo Show. Other products in the Amazon Echo line are not compatible with AXIS Gear.

Before you begin, please make sure that:

- Gear is configured and put into Smart Home Mode
- Echo Plus is set up and configured
- The Amazon Alexa App is set up on your mobile device

JOIN GEAR TO AMAZON ECHO PLUS

1. Open the **Amazon Alexa** app and navigate to **Smart Home**
2. Mark your Echo Plus 'discoverable':

a. Say "Alexa, discover devices," OR
b. Go to the **Smart Home** section and click on the **+ icon > Add Device**

3. Immediately press **Pair** on your AXIS Gear. Echo Plus will discover AXIS Gear as ‘First Device' (or Second, or Third).

The touch strip flashes green twice to indicate a successful pairing
To verify, go to All Devices in the Devices screen. The Gear will appear as 'First Device' (or Second, or Third)]

VOICE COMMANDS

1. In the **Devices** screen click on the **+** icon in the top right corner
2. Select **Add Group** and choose a room name
3. Select the Gears that will be part of the group
4. Now you can use the following commands which Alexa can process:

"Set [room] to ___%" - all blinds go to desired percentage
NOTE: You may also control each device by using the name given to the device. For example, "Set First Device to 50%"

SCHEDULES

1. Go to **Routine > Add Routine**
2. Select **Schedule** under **When this happens** and set a time, press **Next**
3. Select **Smart Home**, select **Smart Home**, select **Control Device**, select the device
4. Select **Brightness** and set a value anywhere between 0% and 100% (0% is close, 100% is open)

5. Select **Next**
6. Select **Save**

You may also add additional devices to the schedule. To do so, after step 5 press the **Plus** icon beside **Add action** and follow steps 3 -5 again with a new device.

OPTIONAL VOICE COMMAND MODIFICATIONS

1. In the Amazon Alexa app, click on the **Menu** and go into **Routines**
2. Click on **Settings** and navigate to the **Assistant** tab to select **Routines**
3. Add a new routine by clicking on the **+** icon on the top right and set up the following

When this happens > Voice and enter the phrase as **Open [Room]** or **Close [Room]**
Add **Action > Smart Home > Control Group** and select **[Room]** with the **Turn On** (or **Turn Off**) option
Click on **Add** and then **Create**

4. To operate, the blinds you can now say "Alexa, Open [Room]" or "Alexa, Close [Room]" to fully open or close the shade(s).

REMOVE GEAR FROM AMAZON ECHO PLUS

1. In the Amazon Alexa app, navigate to **All Devices**
2. Select the device you wish to delete
3. Add a new routine by clicking on the **+** icon on the top right and set up the following

Control4 Integration

Before you begin, please make sure that:

- All Gears are in Smart Home Mode
- You have Composer Pro Software installed

ADD DRIVER TO SYSTEM

This driver is designed for AXIS Gear. The driver provides 2-way communication between the Director and the Gear so that all events are updated real time. The functions of this driver include the following:
- Open
- Close
- Set Blind to Discrete Level
- Stop

Group functionality can be implemented via the TEMP_LEVEL attribute which is described in the Group Control section of the documentation.

1. In the menu bar, go to **Driver > Add or Update Existing Driver** to make the driver available to Composer
2. Go to **System Design**
3. Under the **Items** section, go to **My Drivers** and right-click on the desired folder (or create a new one) and click on **Add Driver**
4. Select **Blinds** as the Device Type and select **AXIS Gear**. It should now appear in My Drivers
5. Double click on the Driver to add it to the System (NOTE: Do this step for every Gear that needs to be added)

JOIN GEAR TO SYSTEM

1. Go to **Connections** and go to the **Network** tab
2. Click on **ZigBee Network** to show the ZigBee device and available drivers
3. Enable joining of devices by using any of the following methods and select the appropriate ZigBee server:
- Double Click on the Driver
- Right Click on the Driver and select Identify
- Select Driver and click Identify and press **Next >** until you reach the Driver
4. Long Press the Pair button on the Gear and wait until the EUI of the ZigBee device is populated as the Address

GROUP CONTROL

Group control has been implemented to change the positions of all Gears in the following scenarios:
- Sending of OTA command to change level to any Gear in group
- Manual operation of any Gear in a group will change positions of other gears

Because of a known issue in 2.10.X, the Target_Level and Level variables don't function as designed. For this reason, we have created the variable TEMP_LEVEL. The implementation needs each Gear to have an action programmed for any Gears that it wants to be controlled with. For example, if there are 5 Gears in the group, each Gear needs to have 4 actions programmed to control the other gears.

To program group control, do the following for each Gear:
1. Open **Composer Pro** and go to **Programming**
2. In the **Programming** window, expand the options by clicking on the + beside one of the Gears (i.e. GEAR 1) that are to be added to be the same group
3. Expand the **Device Variables** and select **TEMP_LEVEL** which will highlight **When TEMP_LEVEL changes**
4. In the **Actions** window, expand another one of the Gears (i.e. GEAR 2) in a similar method to Step 2-3 and to select the variable **TEMP_LEVEL**
5. Select the option **Set to Value of** with the drop-down option of ROOM -> GEAR 1 -> TEMP_LEVEL
6. Repeat Steps 1-5 for any other Gears that need to control or be controlled by another Gear
7. Send commands over the Control4 network to a Gear by using any of the Navigators or the touch interface of the Gear to control any programmed Gears

NOTE: Dealers may also use the Control4 Blind Group driver to control the Gear with other blinds

REMOVE GEAR FROM SYSTEM VIA COMPOSER

1. Go to **Connections** and go to the **Network** tab
2. Click on **ZigBee Network** to show the ZigBee device and available drivers
3. Enable joining of devices by using any of the following methods and select the appropriate ZigBee server:
- Select Driver and Select Disconnect (best)
- Right Click on the Driver and select **Disconnect**
- Double Click on Driver press Disconnect (Device may rejoin using this last method)
4. Verify that no Address shows up for the respective device

REMOVE GEAR FROM SYSTEM VIA DEVICE

1. Press and hold **Pair and Group** buttons for 5-7 seconds until the Gear flashes blue
- The device will change to Bluetooth mode which wipes out the ZigBee settings and leaves the network
2. Press and hold **Pair and Group** buttons again for 5-7 seconds until the Gear flashes purple

to get Gear back into Smart Home Mode

NOTE: This will result in the Gear leaving the mesh network but not disconnecting from the Control 4 Director. To rejoin, the appropriate device must be disconnected via Composer and initiate the Identify process.

SmartThings Integration

Before integrating with SmartThings, please make sure that:

- All of the Gears you wish to use with SmartThings are configured and in Smart Home Mode.
- The SmartThings Classic app is installed on your mobile device.
- Your SmartThings hub is set up via the SmartThings Classic app.

CREATE A SMARTTHINGS DEVELOPER ACCOUNT

https://graph.api.smartthings.com/register

Please note that you should use the same email as the one you used to set up your SmartThings hub.

ADD GEAR TO THE SMARTTHINGS APP

Go to the SmartThings Classic app and click on Add A Thing.

Press the Pair button on Gear. After pairing is complete, Gear's Touch Strip flashes Green twice. It may take one or two minutes for the SmartThings Classic app to recognize Gear.

If Gear appears as a "Thing," tap on Rename to change its name to whatever you would like and move onto the next step.
If Gear does not appear, go back to the My Home section of the SmartThings app, select Add A Thing and try again.

Once Gear is added and named, it appears as a Thing with the given name. The SmartThings app also displays a SmartThings icon alongside a "Please Wait" message on the Thing's tile.

If you wish to add more Gears to SmartThings repeat the same steps once more by selecting Add A Thing and pressing Pair on Gear.

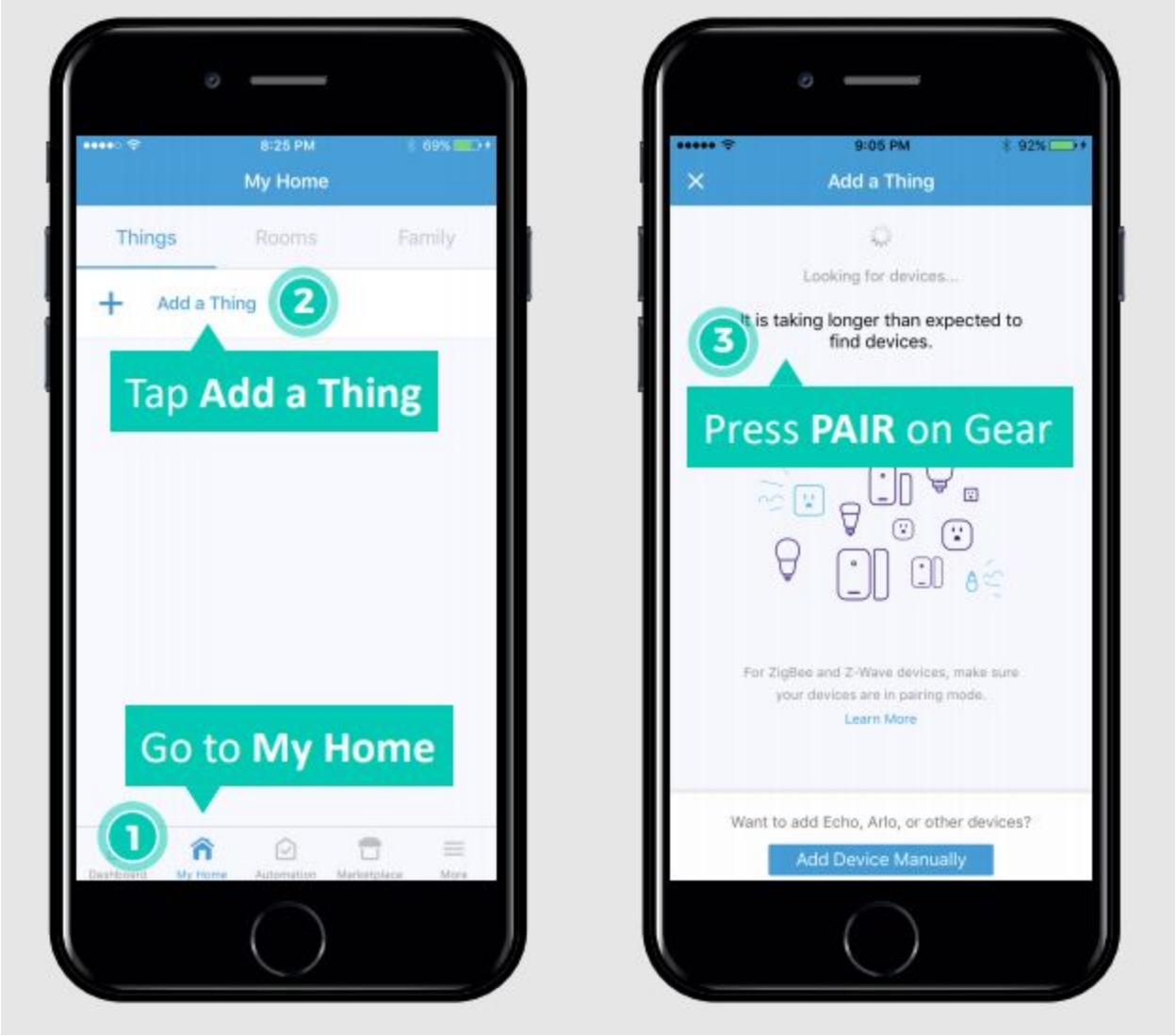
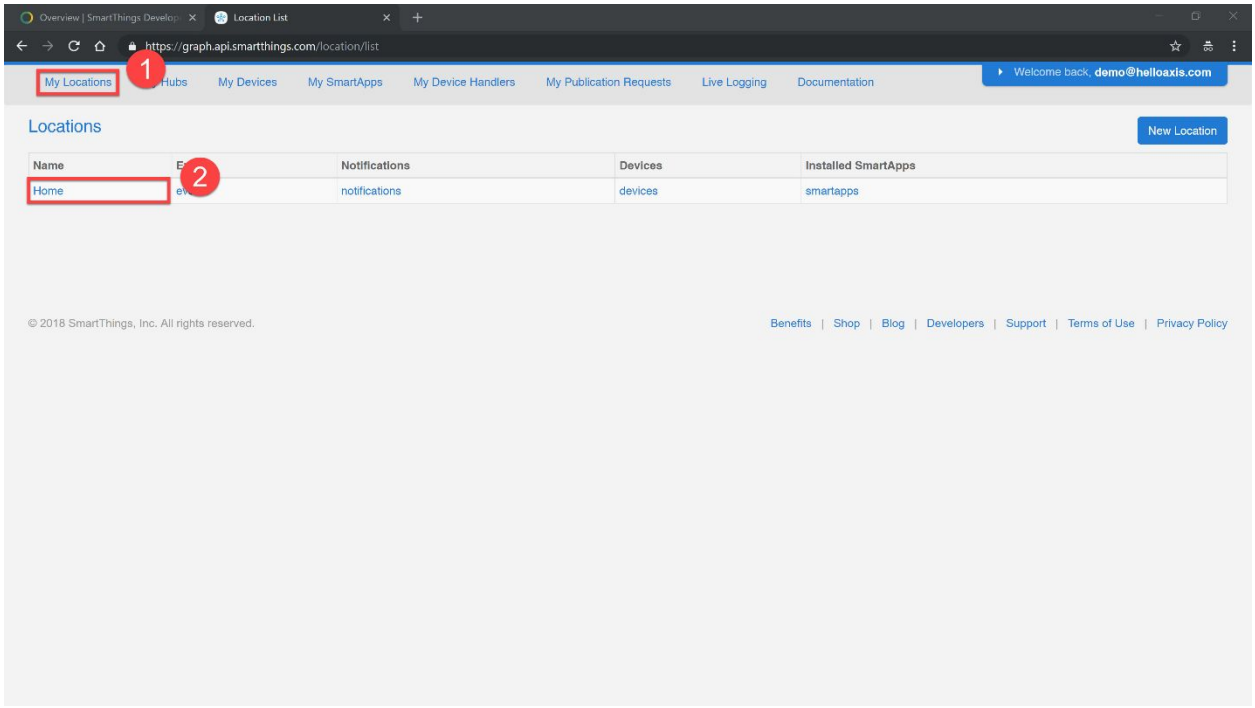


Figure 40 Add a Thing (left), Searching (right)

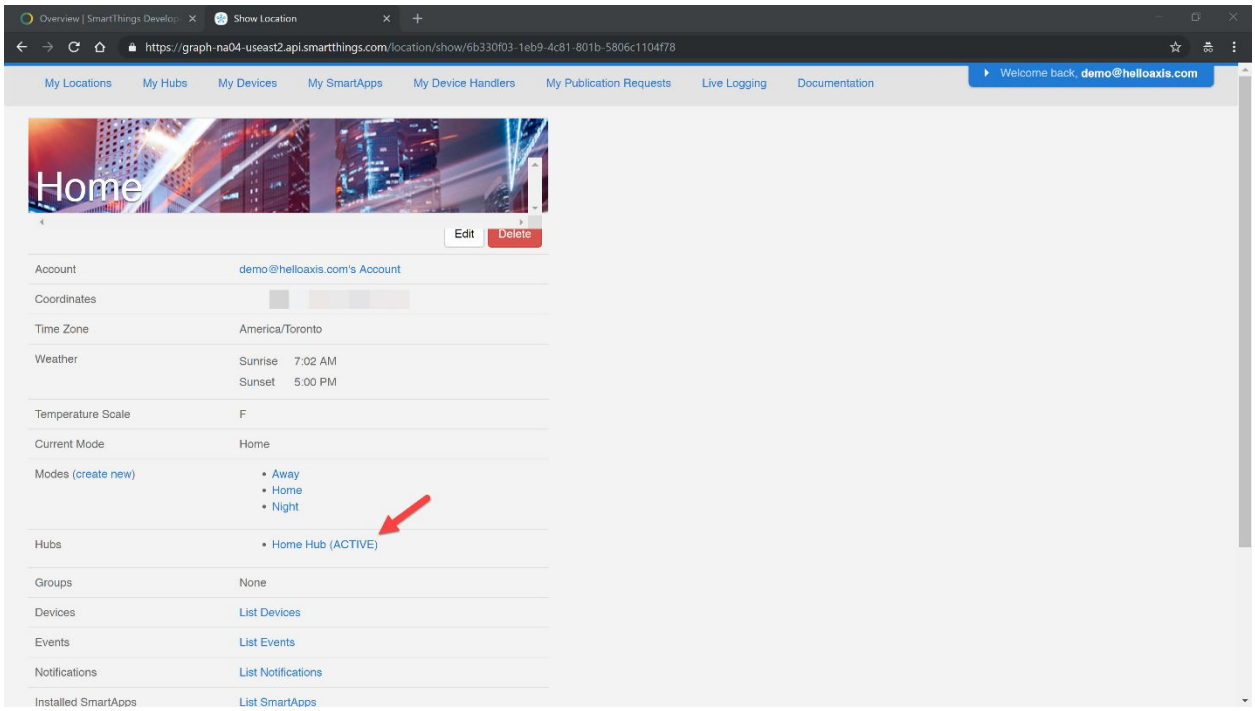
ENABLE SMARTTHINGS FUNCTIONALITY ON GEAR

Log in to developer.smartthings.com with the account created in the first step.

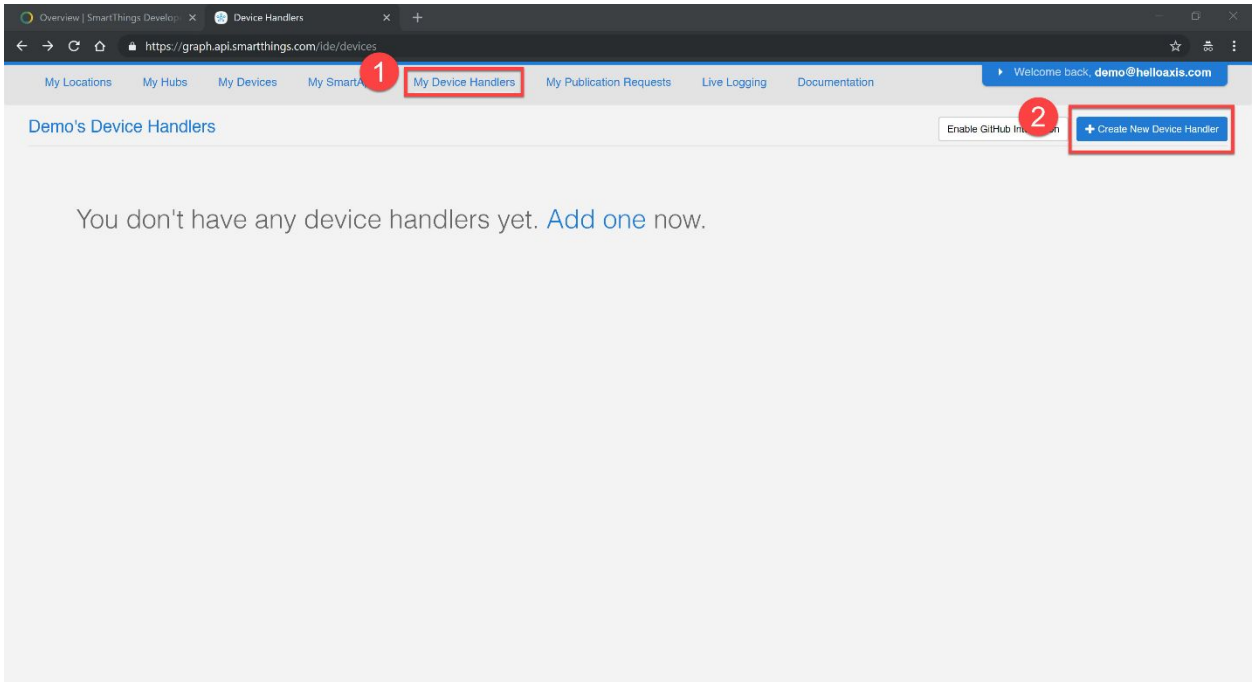
Go to My Locations. Then click on your Hub's location (e.g., Home) and then click on your hub to verify that it is online. Not doing this may result in the hubs or Gear(s) not appearing visible.



After clicking on the hub, make sure that it has (ACTIVE) next to it.



Click on My Device Handlers in the top menu. Then click on +Create New Device Handler.

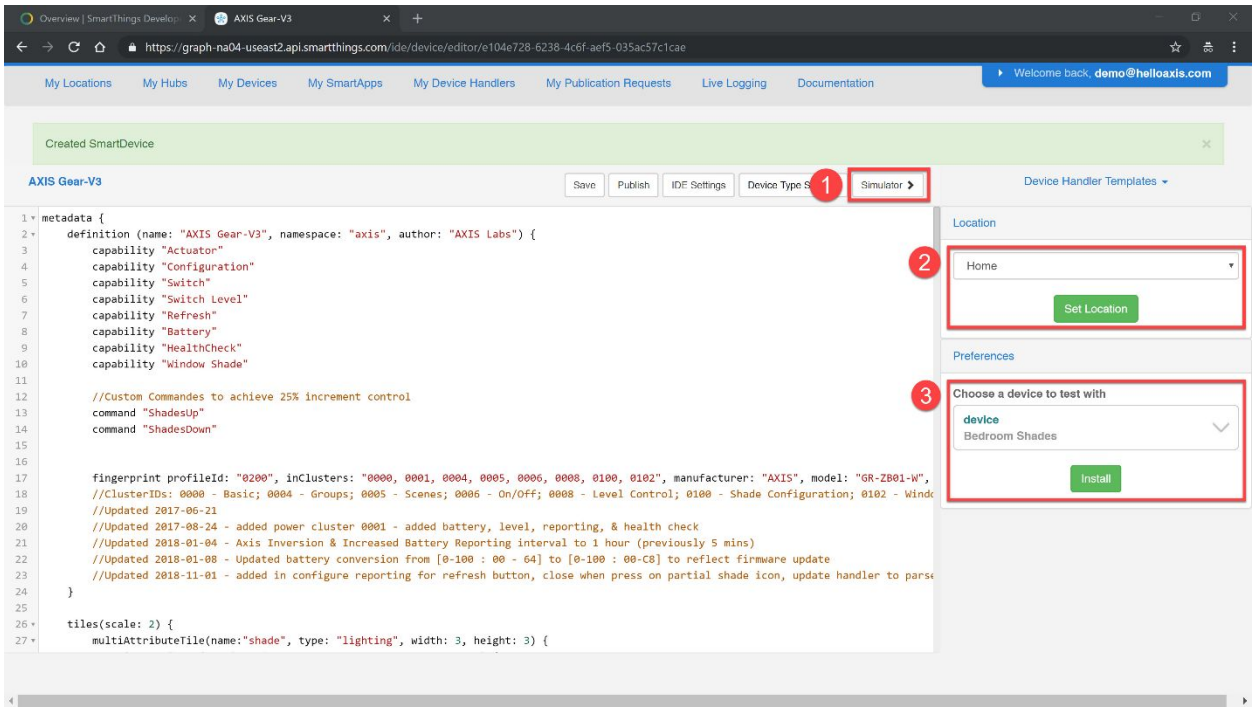


Click on From Code tab. Paste the code from the customer support site linked below. The code is contained in a .txt document near the bottom of the page. Then Click Create.

https://support.helloaxis.com/hc/en-us/articles/360000044207-Integrating-with-SmartThings

Click on Simulator. Then select the Hub's location (e.g., Home) and click on Set Location. After that, under Preferences select the first Gear that is paired to the SmartThings Hub following Install.

On the Things screen in the SmartThings Classic app, the Gear will now show a shade icon beside the Gear name, and a badge stating "Open" instead of "Please Wait."



If you have additional Gears that have been added to the SmartThings Classic app which you would like to enable, click on Preferences to reveal the additional Gears, select the next one to enable, and click Update.

You are now able to control all of your Gears through the SmartThings Classic app.

Troubleshooting

The bracket will not come off the wall

The bracket is designed so as to not come off the wall. This is by design. Attempting to remove the bracket can cause damage to your mounting surface. Before mounting, ensure that you have identified the final installation location, used the Positioning Tool and read the installation guide.

Gear won't Power On

Ensure the Back Cover is securely snapped into place. Gear does not power on or function in any capacity if the cover is off.

Ensure that Gear is plugged in. Gear does not function in any capacity if it is not plugged in. The one exception is that it continues to fire schedules that are already on Gear.

If Gear is plugged in, ensure that the power source is capable of delivering power. Try a different outlet if using the Power Adapter or change the AA batteries if using the Solar Bar.

As a last effort, attempt a BIST. This will at least provide an idea of whether Gear is capable of powering on - even temporarily. After a BIST, attempt to power Gear on once more. If successful, recalibrate Gear.

Alternatively, visit the customer support link here to follow an interactive troubleshooting guide.

Gear won't work after an OTA Firmware Update

Gear does not power itself on after a firmware update. Power Gear on by holding the Power button for 5 seconds or until the Touch Strip lights up.

Gear makes a loud grinding noise when in motion

Remove the Back Cover and ensure that there is nothing causing an obstruction. If Gear still makes a loud noise then this may be a sign of motor failure.

Gear does not fire the schedules at the correct time

The most common cause of this is that Gear was powered off at some point and then powered back on. Powering off the Gear in any way causes it to lose its time and therefore not fire the saved schedules when turned back on. Scenarios which power Gear off include pressing and

holding the Power button, removing the Back Cover, performing an OTA update and running out of battery.

Another cause may be a regional time adjustment such as daylight savings time. Gear does not automatically adjust for this and will fire at the old time before any time adjustment change.

Finally, it is possible that another device sent a schedule to Gear. If this happens then the schedules which are seen on the first device are overwritten.

In most cases, simply toggling any one saved schedule off and back on will cause the time to re-synchronize and all schedules saved on the mobile device to re-send. There is no need to send each individual schedule entry.

Note that enabling Smart Home Mode also removes all schedules. However, this is by design since the hub controls Gear while in Smart Home Mode.

Does Gear support Power Over Ethernet?

Gear does not support Power Over Ethernet at this time.

Where can I find additional help articles in-app or reach out to someone with questions about AXIS Gear?

From the AXIS app navigate to the Menu and select Help. This section provides several options including a comprehensive knowledge base, live chat, and a ticket management service for any issues which may be experienced.