

IoT Device Privacy: A Comprehensive Review of Physical Components and Configuration Settings

BAYAN AL MUHANDER

OMER RANA

CHARITH PERERA

Privacy Settings of IoT with Physical Components

The proliferation of Internet of Things (IoT) devices has significantly transformed the landscape of smart home technology, offering unprecedented levels of convenience, automation, and connectivity. This report aims to provide a comprehensive analysis of 100 IoT devices, focusing on their availability in the University Smart Home Lab and the presence of physical components. By examining these aspects, the report seeks to offer valuable insights into the usability, control interfaces, and data management practices of these devices, which are crucial factors for both end-users and developers.

The report is structured into two main sections. The first section presents a detailed table listing all 100 IoT devices, sorted based on their availability in the University Smart Home Lab and whether they include physical components. The second section focuses on the subset of 30 devices that have physical components such as buttons, knobs, and sliders. This section includes a table categorising these devices by their physical components and their apps' privacy settings, including sharing, usage, and retention configurations. Each device entry is supplemented with a picture highlighting its physical components and a roadmap guiding users on how to access and configure the app's privacy settings. This structured approach ensures a clear and organized presentation of the data, facilitating easy reference and analysis.

From Our Analysis, We Found That:





-  The most common physical components on IoT devices are: **Buttons, Knobs, and Sliders.**
-  Most apps provide options to configure usage settings, including **Service Improvement** and **Targeted Advertising.**
-  Some apps offer additional privacy options for **Data Sharing** and **Data Retention.**
-  Most apps display their legal and terms of use as a website privacy policy.

Table 1: Overview of 100 IoT Devices Sorted by Availability in University Smart Home Lab and Physical Components.

Category	IoT Device	Smart Home Lab	Tangible Component	
Smart Home	Philips Hue Dimmer Switch	✓	✓	1
	Roborock Vacuum Cleaner	✓	✓	2
	Siemens Coffee Machine	✓	✓	3
	Lumiman Bulb	✓		4
	Philips Hue Bridge	✓		5
	Meross Plug	✓	✓	6
	LaMetric Time	✓	✓	7
	Smarter Coffee Machine	✓	✓	8
	TPLink Plug	✓	✓	9
	Smarter FridgeCam			10
	iRobot Robot Vacuum	✓	✓	11
	LIFX Smart Switch		✓	12
	BOSCH Built-in Oven		✓	13
	Aqara Roller Shade Driver		✓	14
	GHome Bedside Lamp		✓	15
	SAMSUNG Microwave		✓	16
	Philips Smart Bulbs	✓		17
	Aqara Magic Cube	✓		18
	Lumiman Bulb	✓		19
	Philips Hue Lightstrip Plus	✓		20
	Nanoleaf Light Panels			21
	Samsung Fridge			22
	Fibaro Swipe	✓		23
	Meater Plus			24
	Drop Kitchen Scale			25

Category	IoT Device	Smart Home Lab	Tangible Component	
Health	Oura Ring			26
	iHealth Nexus Scale			27
	QardioArm BPM			28
	Dexcom Glucose Monitor			29
	WITHINGS BPM	✓	✓	30
	Withings Scale	✓		31
	Withings Sleep	✓		32
	Qardio Core			33
	Owlet Smart Sock			34
	Baby Breathing Monitor			35
	Eargo Hearing Aids			36
	Nanit Breathing Band			37
	Spire Stone			38
	OMsignal Biometric Smartwear			39
	UP 24 Smart Wristband			40
	MUSE Brain Headband			41
	Luna Mattress Cover			42
	Cuifati Health Ring			43
	Sleepnumber bed			44
	INSMART Scale			45
Entertainment	Amazon Echo Dot	✓	✓	46
	Amazon Echo Studio	✓	✓	47
	Amazon Echo Show	✓	✓	48
	Google Home	✓	✓	49
	BenQ Projector	✓	✓	50

Category	IoT Device	Smart Home Lab	Tangible Component	
	Viper Connected Car			51
	Estimote Smart Beacons			52
	AEEZO Picture Frame			53
	Dribbleup Smart Basketball			54
Environment	Xiaomi Smart Air Purifier	✓	✓	55
	Nest Protect	✓		56
	Netatmo Weather Station	✓		57
	BOSCH TwinGuard	✓		58
	Orbit Sprinkler Controller			59
	Aqara Water Sensor	✓		60
	Rainpoint Water Timer			61
	BOSCH Room Thermostat		✓	62
	Meross Oil Diffuser			63
	Sensibo Elements			64
	Mill Portable Heater		✓	65
	Netatmo Carbon Monoxide Alarm	✓	✓	66
	D-Link Smoke Detector			67
	Fibaro Flood Sensor			68
	Grohe Sense			69
	Sensibo Sky AC			70
	Bird Buddy Feeder			71
	Tempest Weather System			72
	Orbit Irrigation Timer			73
	Awair Element Air			74
	Aqara Temperature and Humidity Sensor	✓		75

Category	IoT Device	Smart Home Lab	Tangible Component	
	Eve Water Guard	✓		76
	Netatmo Anemometer	✓		77
	Netatmo Rain Guage	✓		78
	Birdie Air Monitor			79
Security	Nuki DoorLock	✓	✓	80
	Reolink Camera	✓		81
	Eufy Entry Sensor			82
	Arlo Outdoor Camera			83
	Wyze Cam			84
	SimpliSafe Glassbreak			85
	Scout Door Panel			86
	Logitech Circle Camera			87
	Yale Butoon	✓	✓	88
	Tapo Home Camera		✓	89
	Furbo Dog Camera			90
	Blink Mini Camera		✓	91
	Reolink Video Doorbell		✓	92
	Blink Video Doorbell		✓	93
	Arlo Floodlight Camera			94
	Xiaomi Motion Sensor	✓		95
	Nuki Lock Opener		✓	96
	Fibaro Door Sensor	✓		97
	Xiaomi Door and Window Sensor	✓		98
	Fibaro Motion Sensor			99
	Samsung Multipurpose Sensor			100

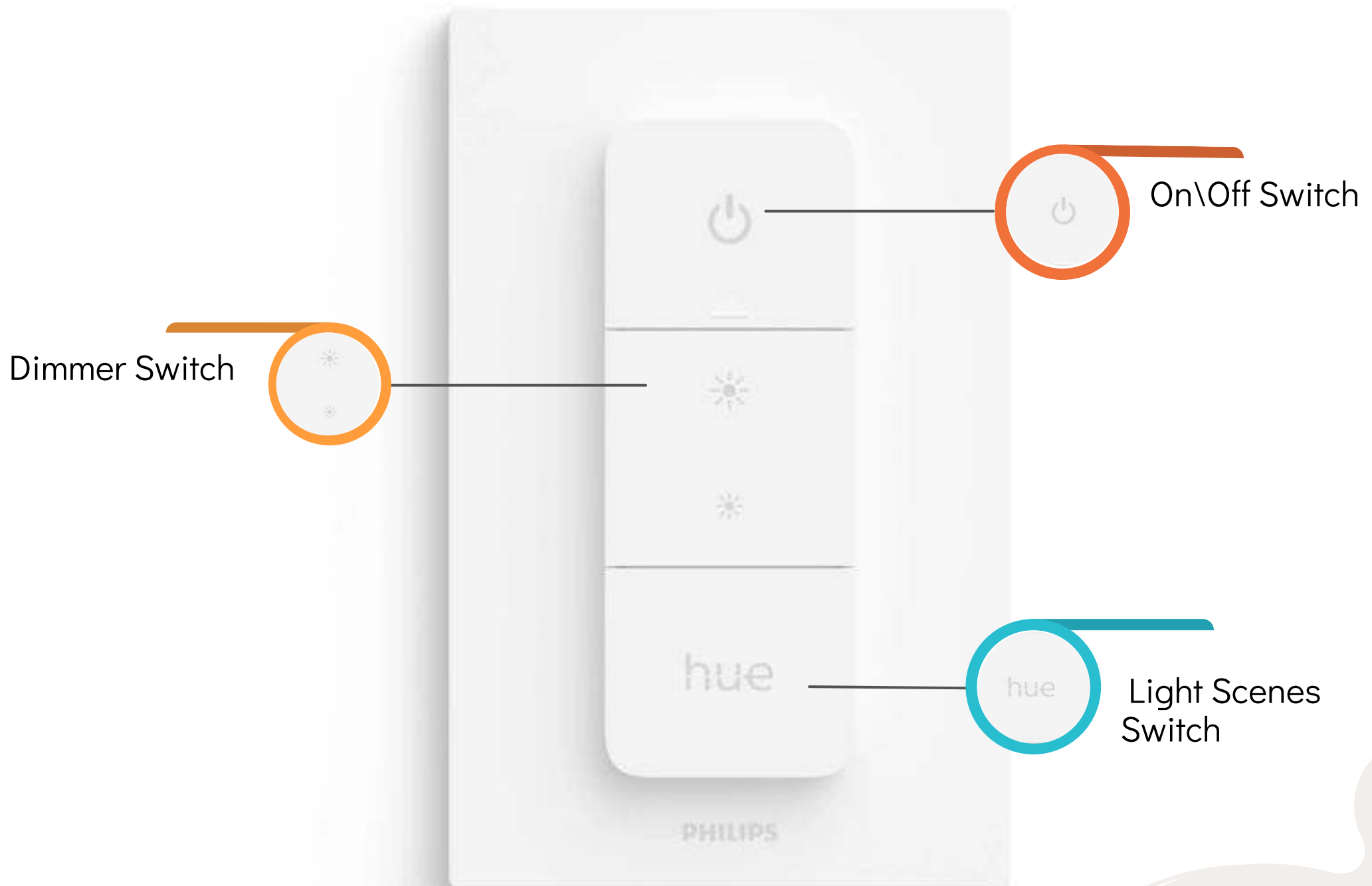
Table 2: IoT Devices with Physical Components and Their App Privacy Settings

IoT Device	Tangible Component			App Privacy Setting			App Privacy Setting		
	Button	Knob	Keypad	Retention	Usage	Sharing	Action Button	Radio Button	Toggle
Philips Hue Dimmer Switch	✓				✓		✓		
RoboRock Vacuum Cleaner	✓				✓				✓
Siemens Coffee Machine	✓				✓				✓
WITHINGS BPM	✓				✓	✓	✓		✓
Xiaomi Smart Air Purifier	✓				✓		✓		✓
Mill Portable Heater	✓	✓			✓		✓		✓
Smarter Coffee Machine	✓								
iRobot Robot Vacuum	✓				✓				✓
TP-Link Smart Plug	✓				✓	✓	✓		✓
Meross Smart Plug	✓				✓	✓	✓		✓
LIFX Smart Switch	✓				✓			✓	
Reolink Video Doorbell	✓				✓				✓
Nuki Lock Opener	✓								
Blink Video Doorbell	✓				✓	✓			✓
Tapo Home Camera	✓				✓	✓	✓		✓

IoT Device	Tangible Component			App Privacy Setting			App Privacy Setting		
	Button	Knob	Slider	Retention	Usage	Sharing	Action Button	Radio Button	Toggle
Meross Oil Diffuser	✓				✓	✓	✓		✓
BOSCH Built-in Oven	✓				✓	✓	✓		✓
Echo Dot Smart Speaker	✓			✓	✓	✓	✓	✓	✓
Echo Studio Smart Speaker	✓			✓	✓	✓	✓	✓	✓
Echo Show Smart Speaker	✓		✓	✓	✓	✓	✓	✓	✓
Aqara Roller Shade Driver	✓				✓	✓	✓		✓
LaMetric Time Smart Clock	✓				✓				✓
Yale Butoon	✓				✓		✓		
Google Home Speaker	✓				✓				✓
GHome Bedside Lamp	✓					✓	✓		
Nuki Smart Lock	✓								
BenQ Projector	✓								
BOSCH Room Thermostat	✓	✓			✓	✓	✓		✓
SAMSUNG Microwave	✓	✓				✓	✓		
Netatmo Carbon Monoxide Alarm	✓				✓	✓	✓		✓

PHILIPS

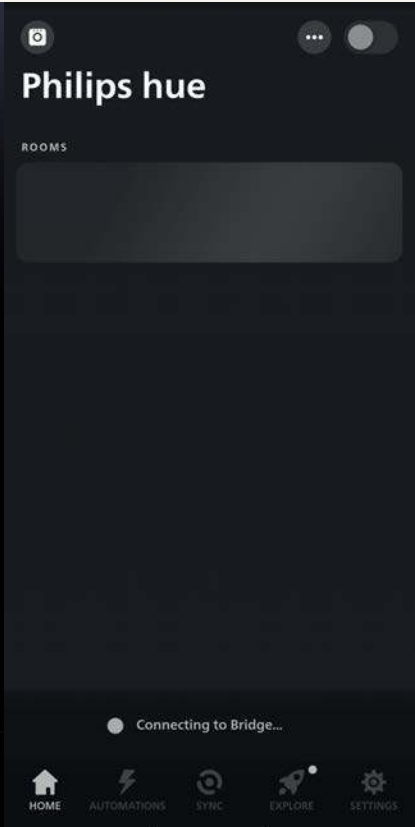
Hue Dimmer Switch



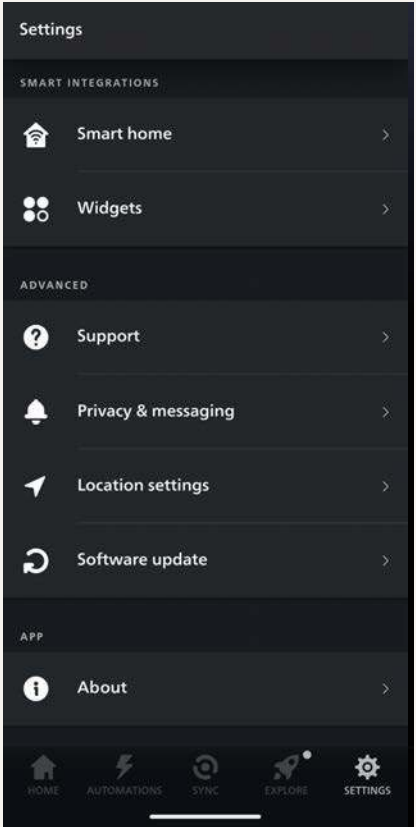
PHILIPS HUE DIMMER SWITCH

Hue Mobile App Privacy Settings

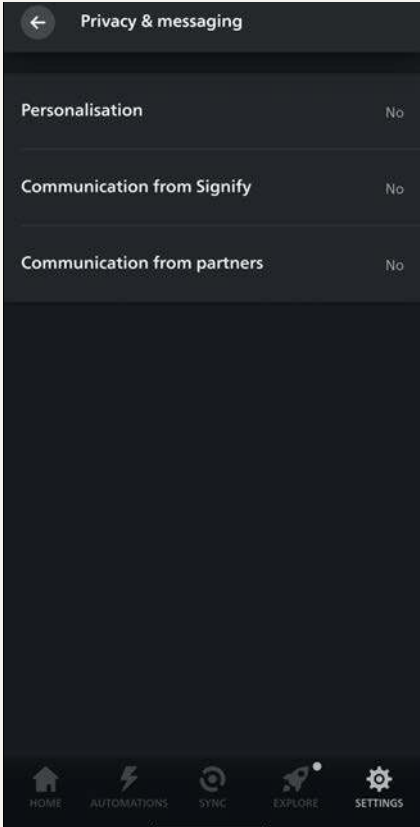
Home Screen



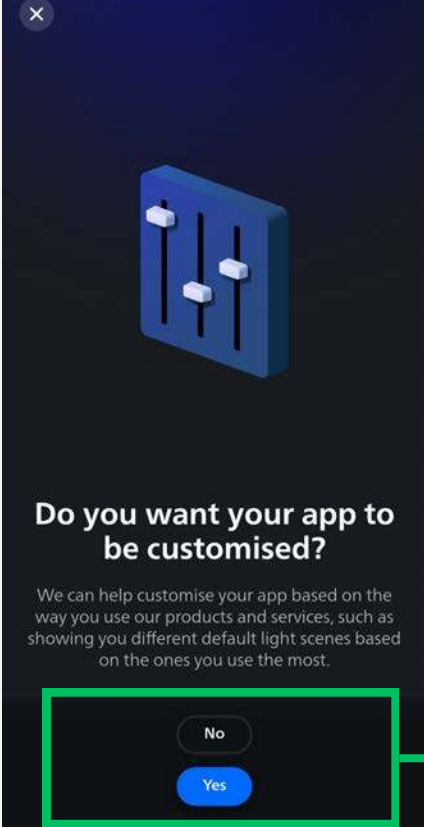
Settings (Scroll down)



Privacy

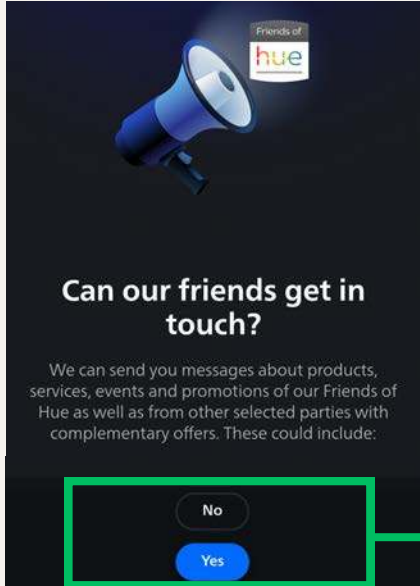


Privacy - Personalisation



Action button
to control
usage

Privacy - Communication

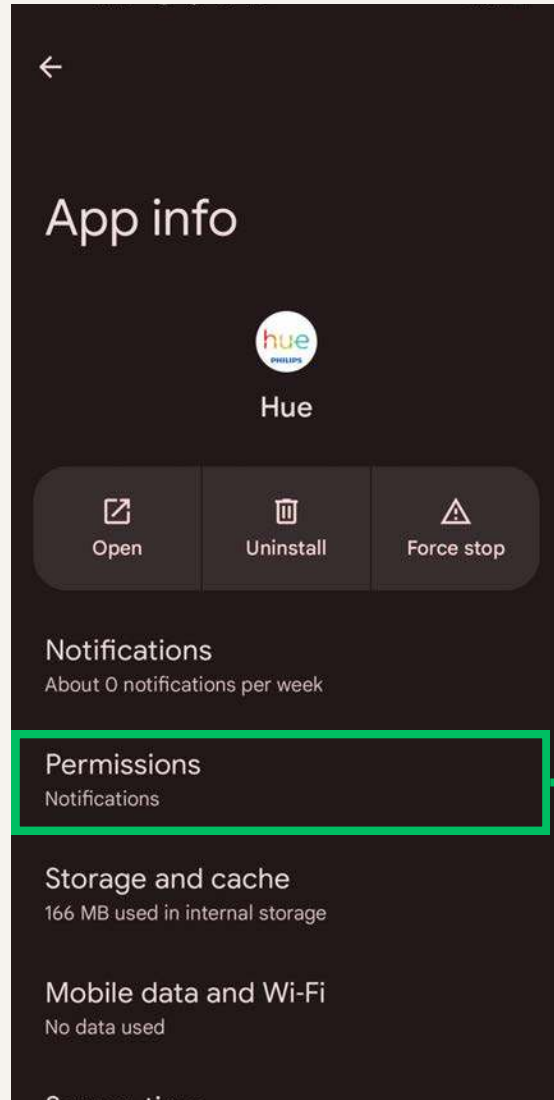


Action button
to control Ads

- Direct privacy settings configurations (Usage).
- Configuration options are available to control Ads.
- Privacy provides options and displays information.

PHILIPS HUE DIMMER SWITCH

Hue Mobile App Permissions



Main app
permissions are
Notifications.



Philips Hue mobile app: a line of smart lighting products. Philips Hue offers a range of smart bulbs, light strips, and lighting accessories that can be controlled remotely via smartphone apps or integrated with smart home platforms like Google Home or Amazon Alexa.

Roborock Robot Vacuum

On\Off Switch



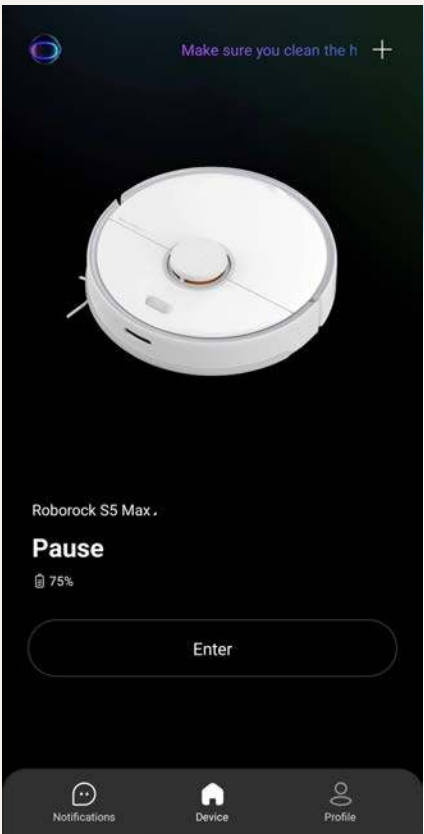
Dock Switch



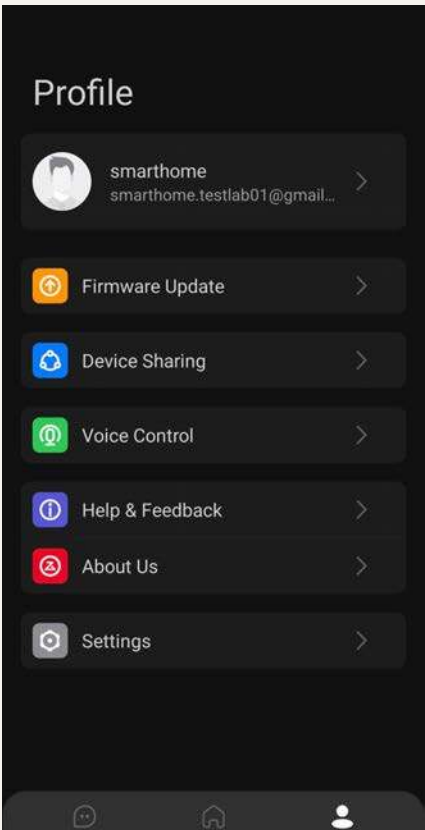
ROBOROCK ROBOT VACUUM

Roborock Mobile App Privacy Settings

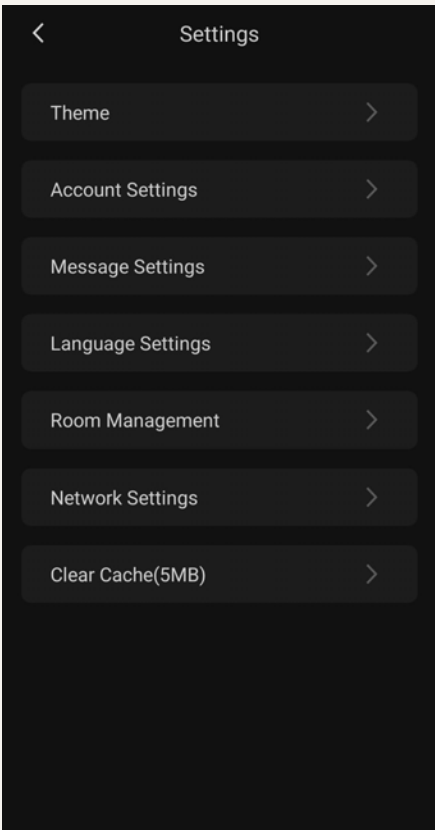
Home Screen



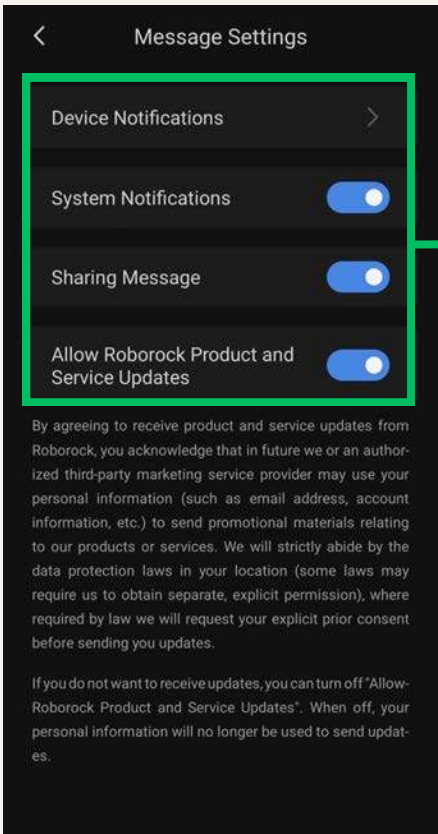
Profile



Settings

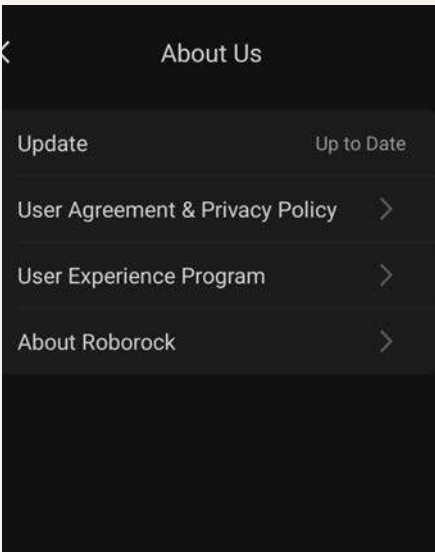


Message Settings

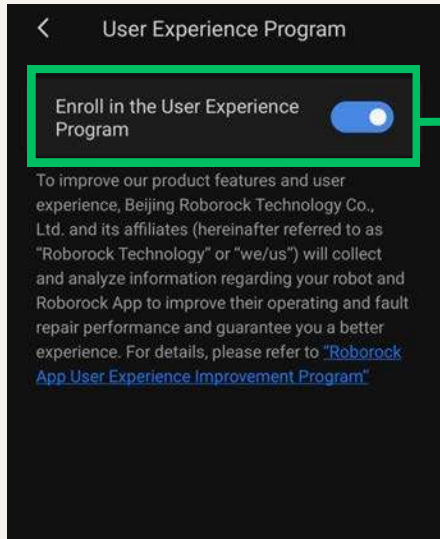


Toggles to control Ads

Settings - About us



User Experience

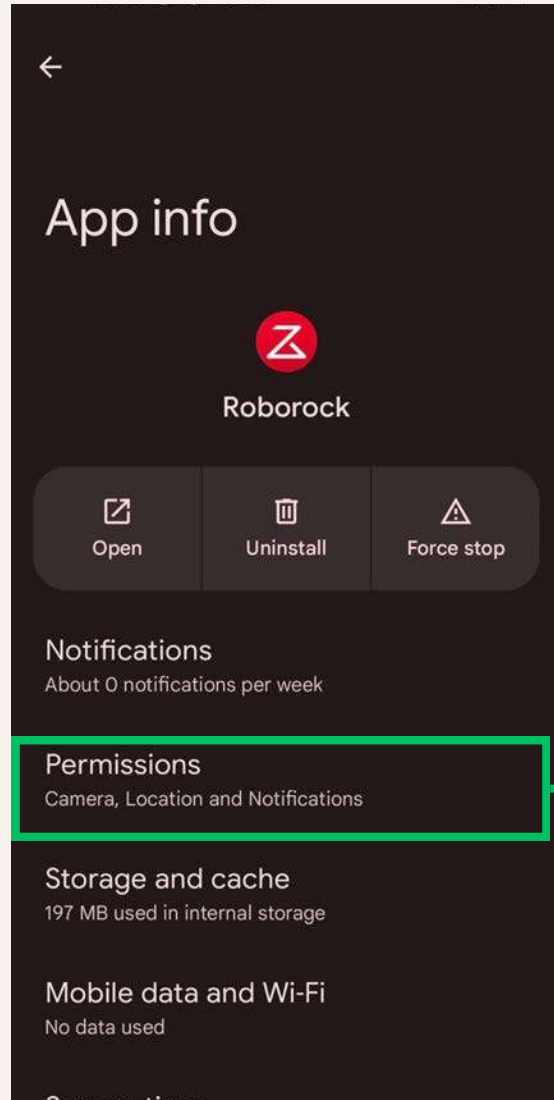


Toggles to control usage

- Privacy settings configurations (Usage).
- Configuration options are available to control Ads.
- Privacy displays information .

ROBOROCK ROBOT VACUUM

Roborock Mobile App Permissions



Home Connect mobile app: Roborock specialises in robotic vacuum cleaners and mops. Their products often feature advanced navigation systems, mapping capabilities, and integration with smart home platforms.

Main app permissions are **Camera, Location, and Notifications.**

Siemens Coffee Machine



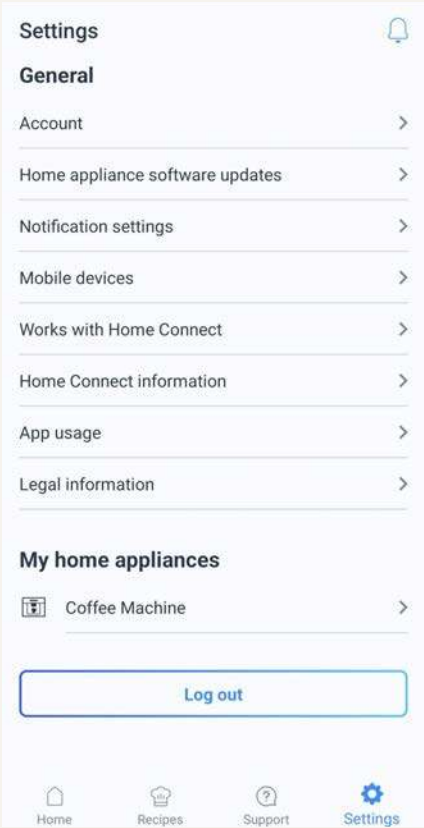
SIEMENS COFFEE MACHINE

Home Connect Mobile App Privacy Settings

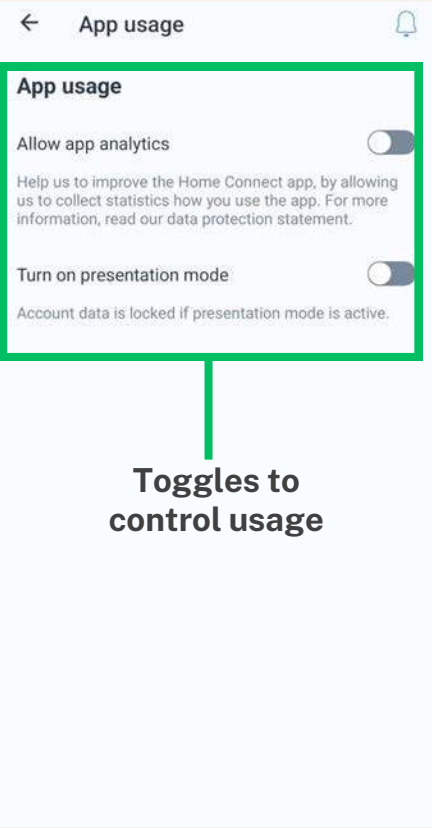
Home Screen



Settings

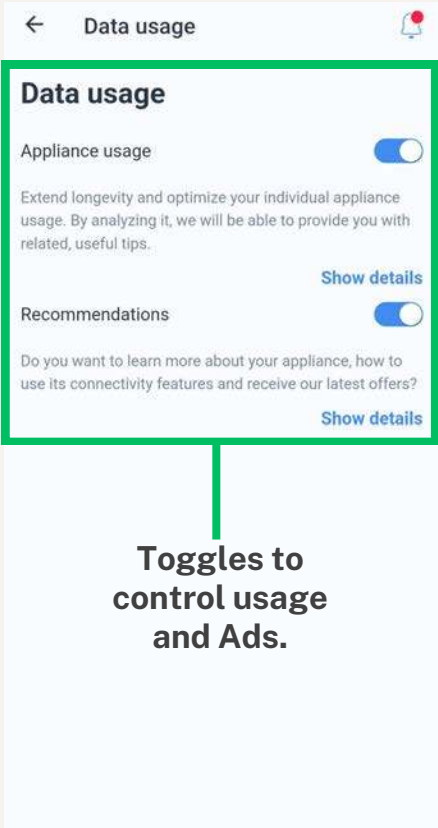


App Usage



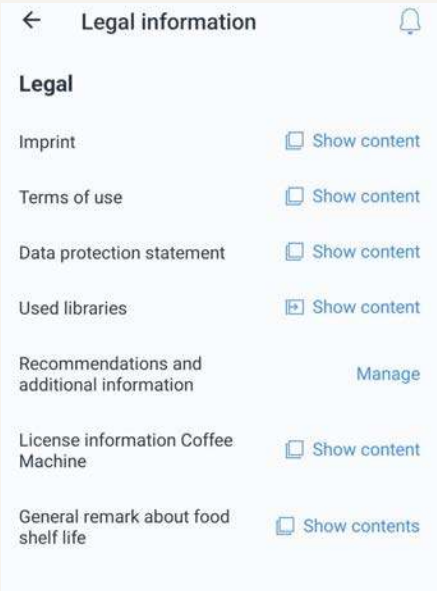
Toggles to control usage

Consent Management



Toggles to control usage and Ads.

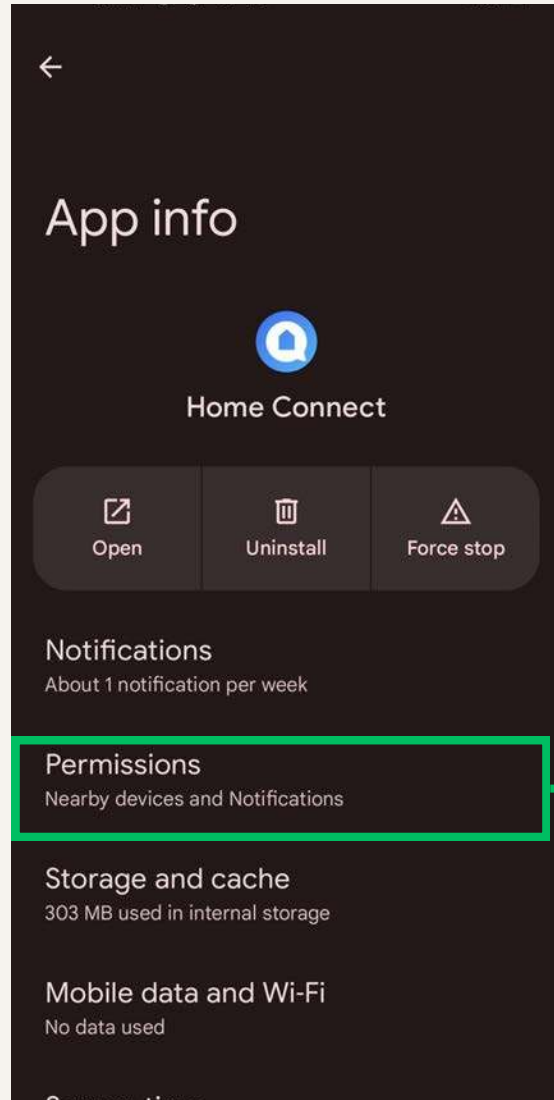
Legal



- Direct privacy settings configurations (Usage).
- Configuration options are available to control Ads.
- Legal only displays information .

SIEMENS COFFEE MACHINE

Home Connect Mobile App Permissions



Home Connect mobile app: The Home Connect app is a comprehensive platform designed to manage and control a variety of smart home appliances. It acts as a central hub for controlling and monitoring various smart home appliances.

Main app permissions are Notifications.

WITHINGS BPM Connect



Blood Pressure
Measurement Button



WITHINGS BPM CONNECT

Withings Mobile App Privacy Settings

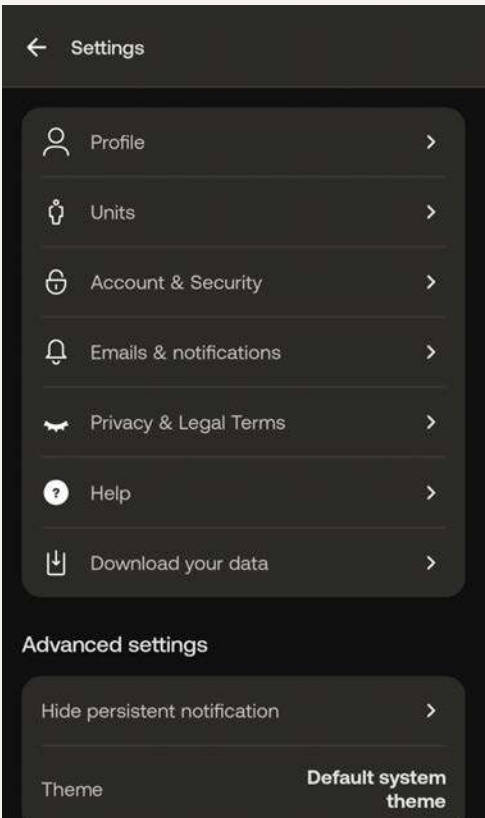
Home Screen



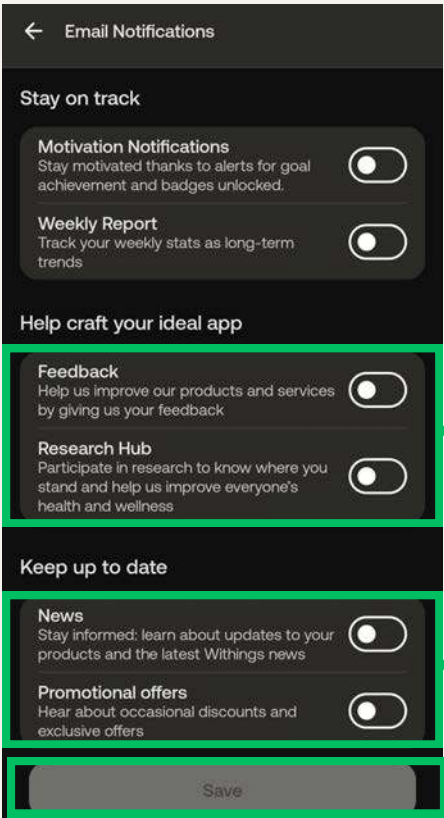
Profile



Settings



Notifications

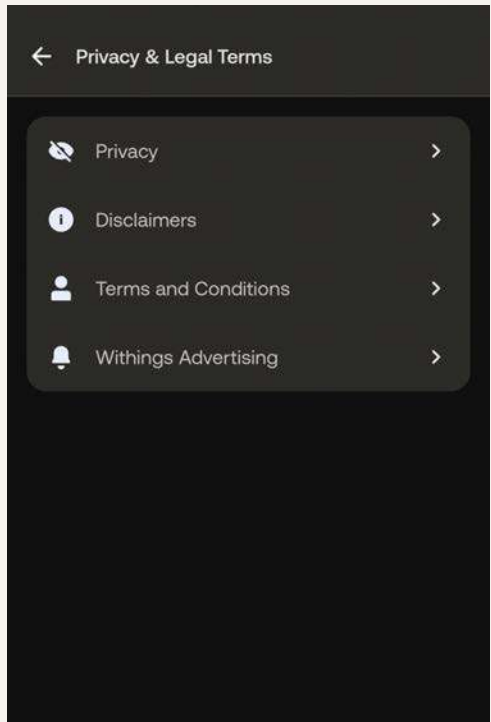


Toggles to control usage.

Toggles to control Ads.

Action button sharing

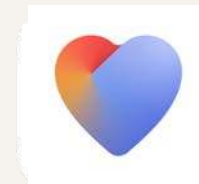
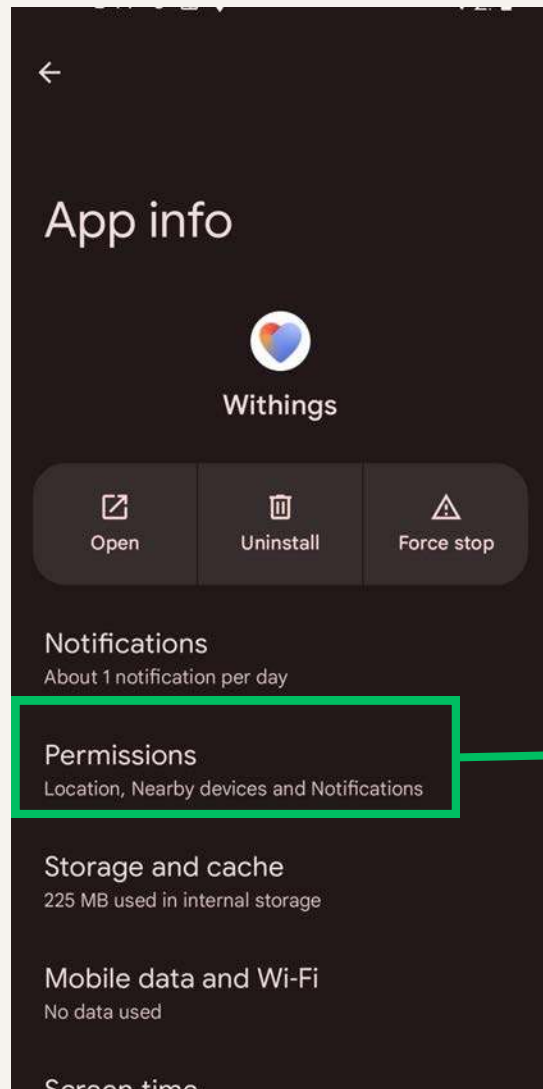
Privacy & Legal



- Privacy settings configurations (Usage).
- Configuration options are available to control Ads.
- Privacy and Legal only displays information .

WITHINGS BPM CONNECT

Withings Mobile App Permissions



Withings mobile app: The Withings app is designed to help users track and manage their health and fitness data collected from Withings devices, including scales, blood pressure monitors, and sleep trackers.

Main app permissions are **Location** and **Notifications**.

Xiaomi Air Purifier

On\Off Switch



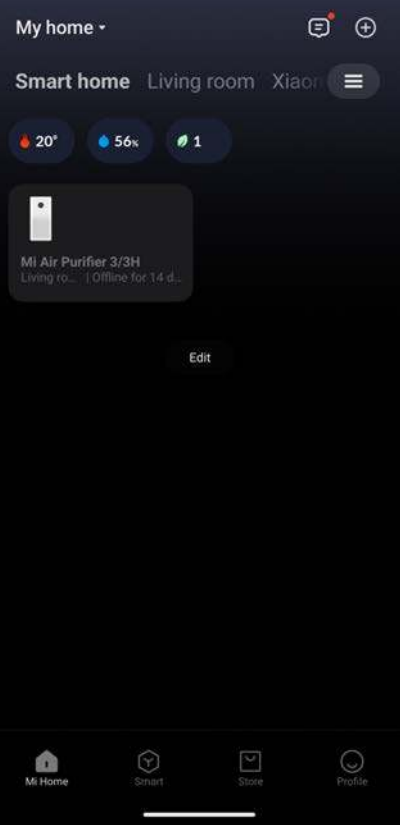
Fan Control



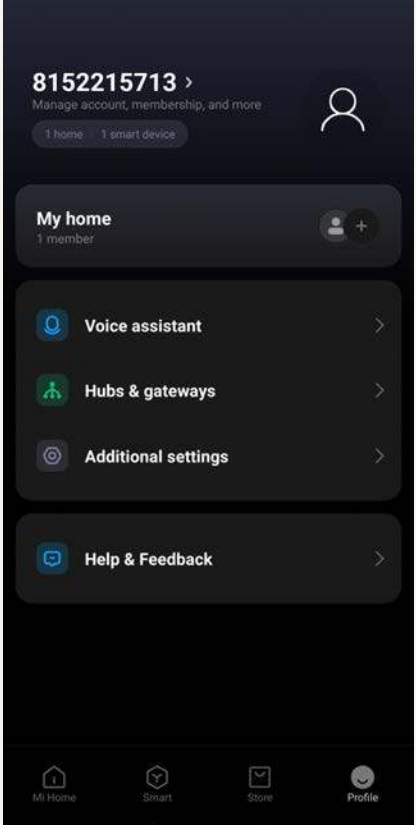
XIAOMI SMART AIR PURIFIER

Mi Home Mobile App Privacy Settings

Home Screen



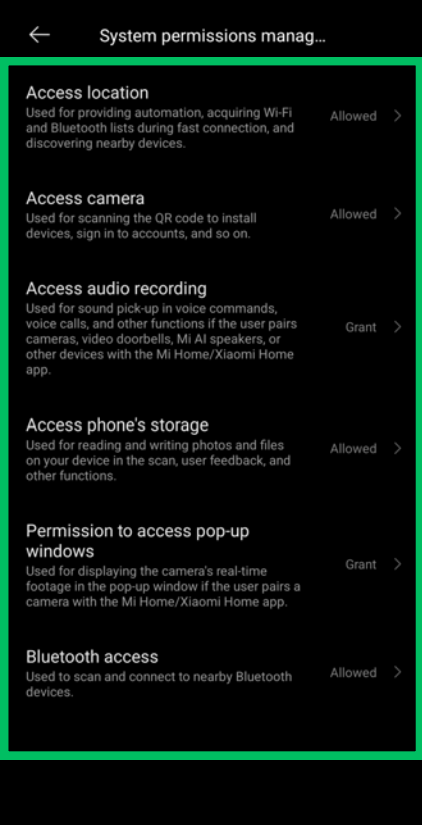
Profile



Additional Settings (Scroll down)



Privacy- System Permissions

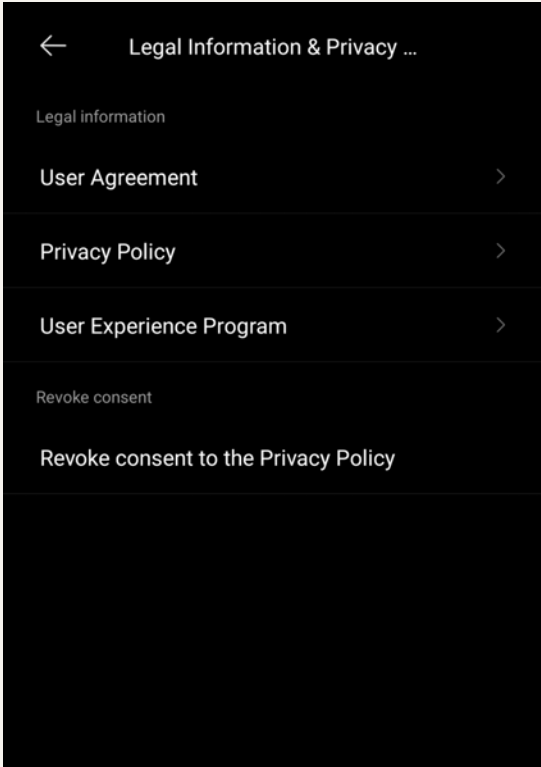


Text to control
system
permissions

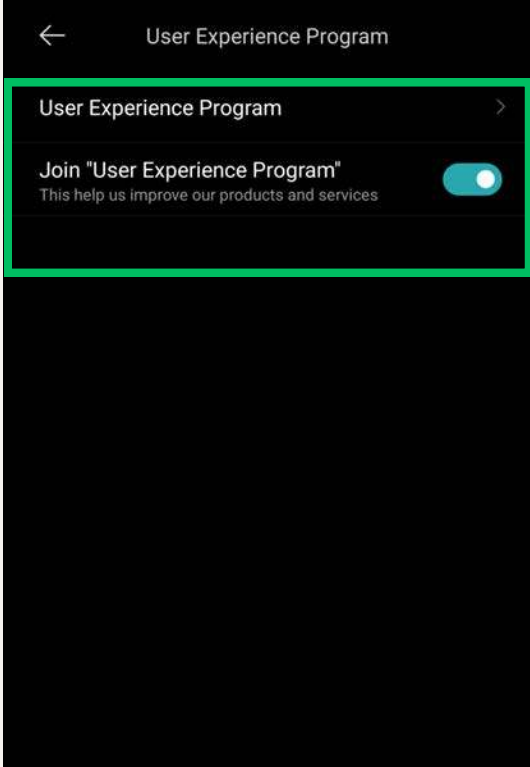
XIAOMI SMART AIR PURIFIER

Mi Home Mobile App Privacy Settings

Legal and Privacy

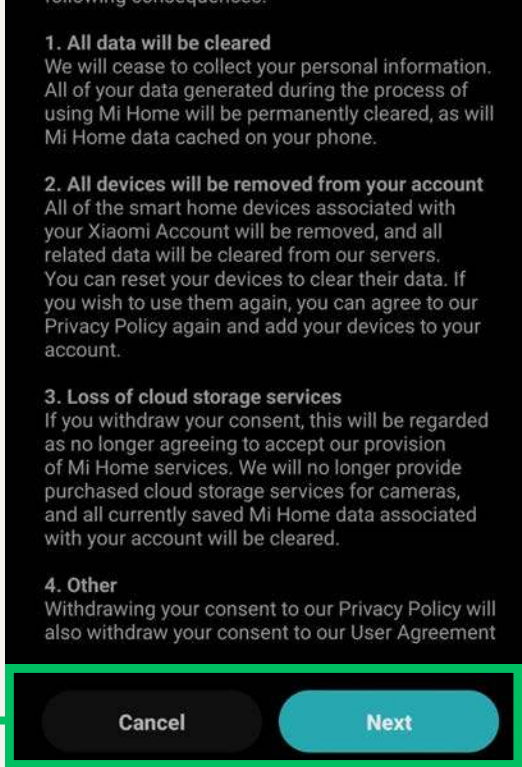


Legal - User experience



Toggle to control usage

Revoke Consent

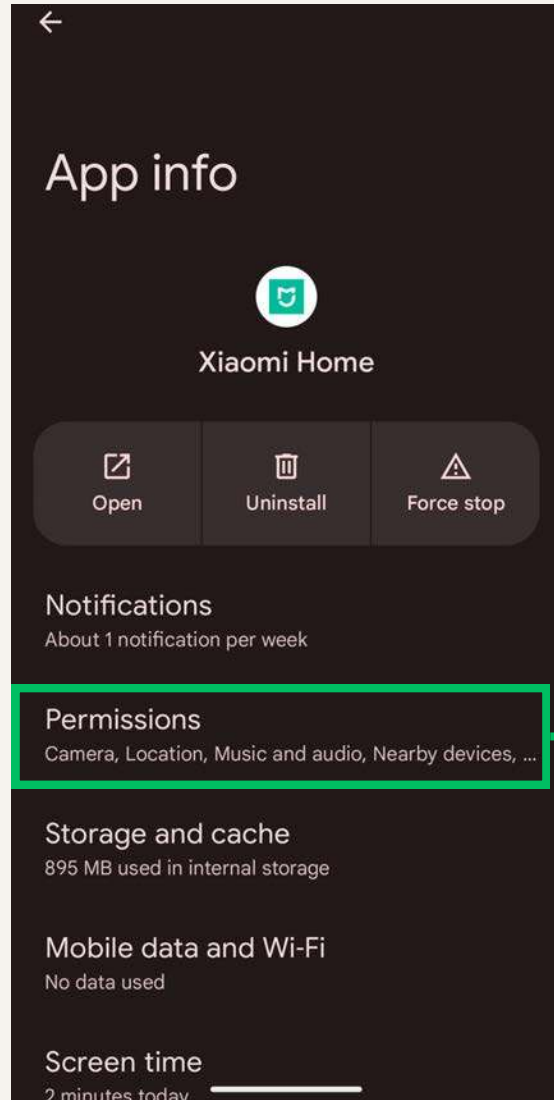


Action button to delete data

- Direct privacy settings configurations (Usage).
- Privacy provides options and displays information .

XIAOMI SMART AIR PURIFIER

Mi Home Mobile App Permissions



Main app permissions
are **Location, music
and audio, and
Notifications**



Mi Home mobile app: Mi — Home is a smart home ecosystem developed by Xiaomi. It includes various smart home devices such as smart plugs, sensors, cameras, and lighting products. These devices can be controlled via the Mi — Home app and integrated with other Xiaomi smart home products.

mill Portable Heater



MILL PORTABLE HEATER

Mill Norway Mobile App Privacy Settings

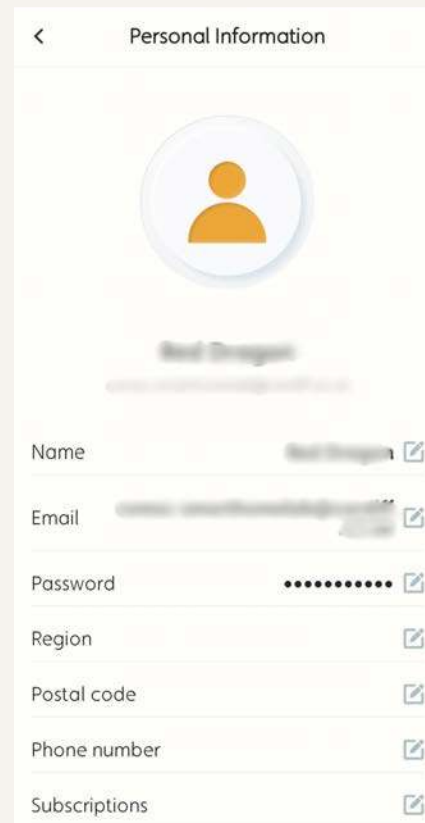
Home Screen



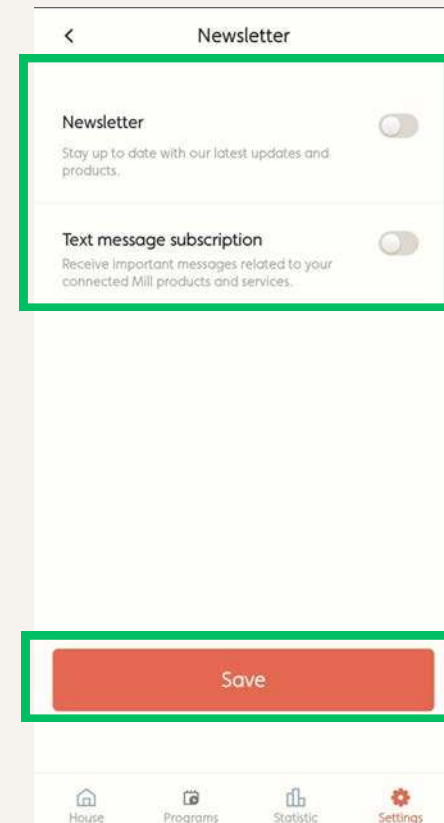
Settings



Personal Information



Subscriptions



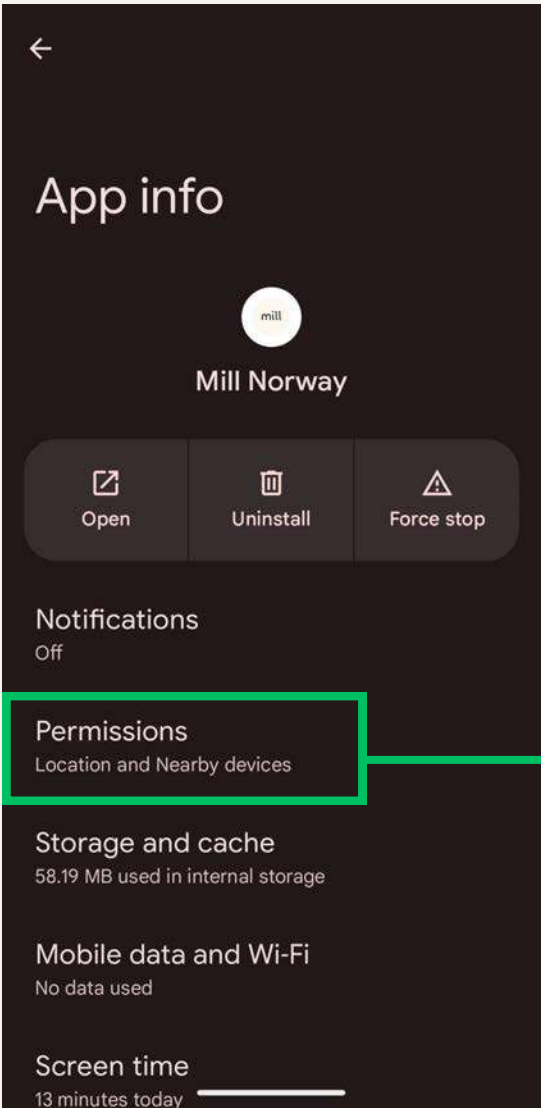
Toggles to control Ads

Action button confirmation

- No direct privacy settings configurations
- Some configuration options are available to control Ads.

MILL PORTABLE HEATER

Mill Norway Mobile App Permissions



Mill Norway mobile app: Mill, is a Norwegian company that specializes in designing and manufacturing innovative heating solutions, including smart heaters and thermostats.

Main app permissions is **Location**

Smarter Coffee Machine

On\Off Switch



Cups Control



Filter Control



Dispenser Control



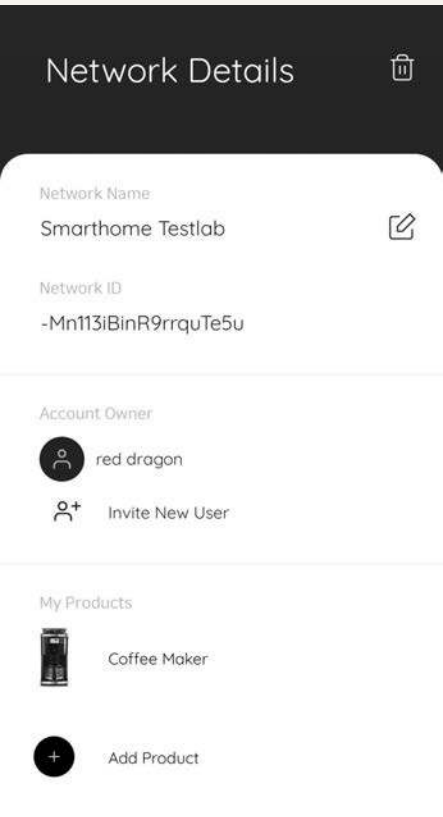
SMARTER COFFEE MACHINE

Smarter Mobile App Privacy Settings

Home Screen



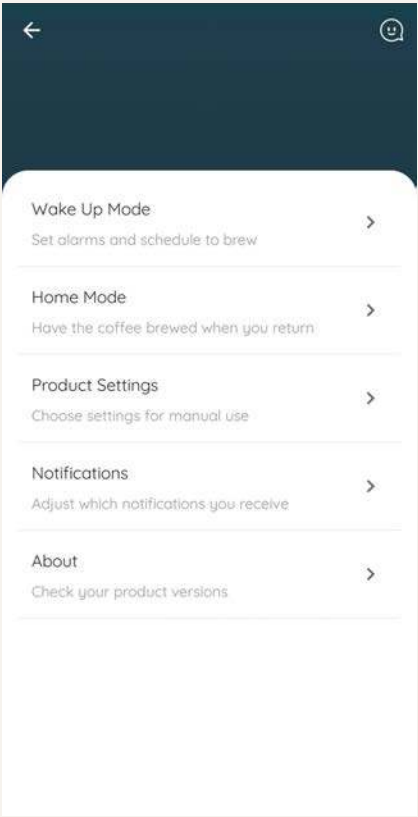
Settings



Products



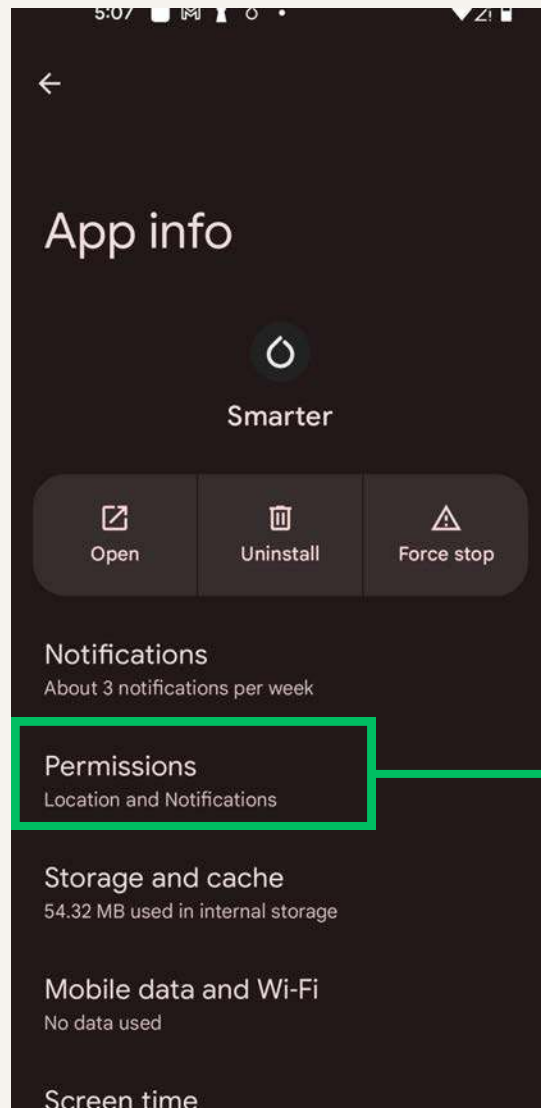
Options



No direct privacy settings configurations

SMARTER COFFEE MACHINE

Smarter Mobile App Permissions



Smarter mobile app: Smarter Applications Ltd., is a company that produces smart kitchen appliances, including the Smarter Coffee machine and iKettle, which can be controlled via smartphone apps.

Main app permissions are **Location** and **Notifications**

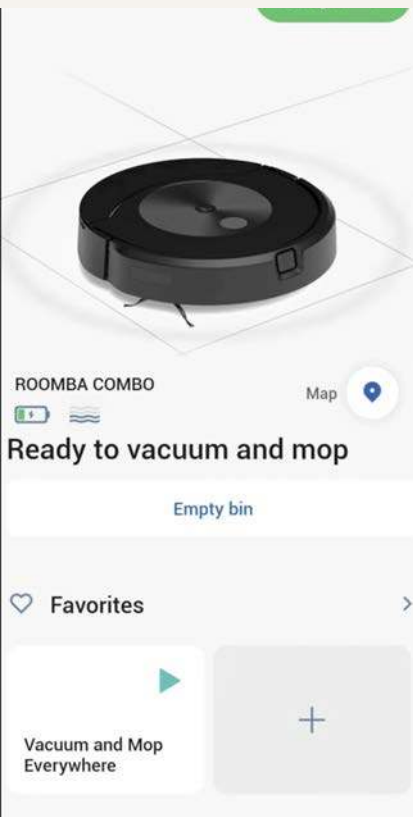
iRobot Robot Vacuum



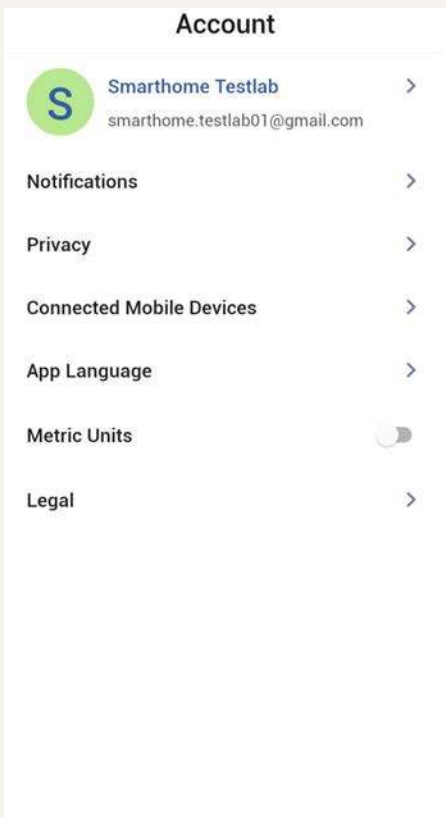
IROBOT ROBOT VACUUM

iRobot Mobile App Privacy Settings

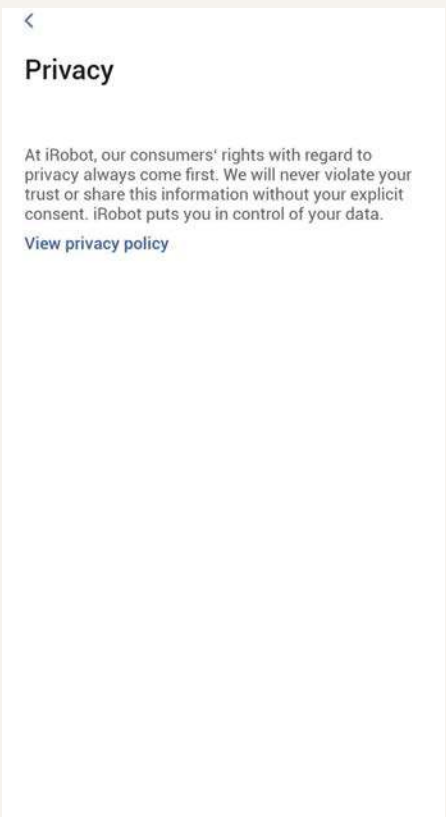
Home Screen



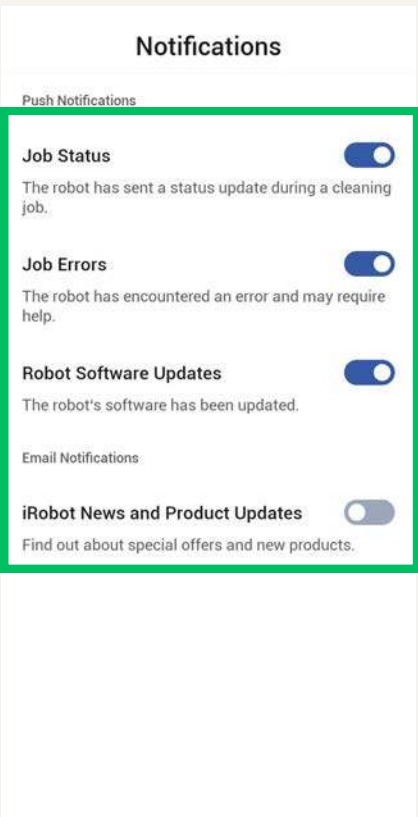
Profile



Privacy

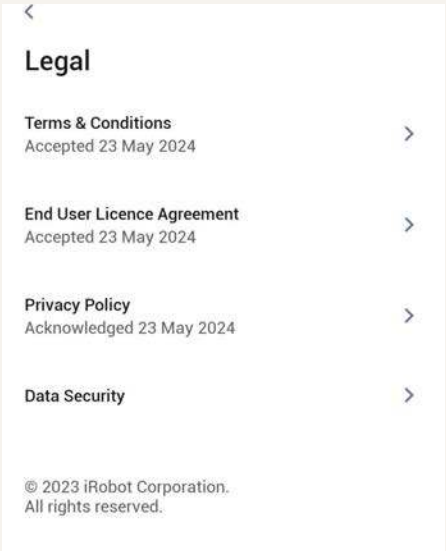


Notifications



Toggles to control Ads

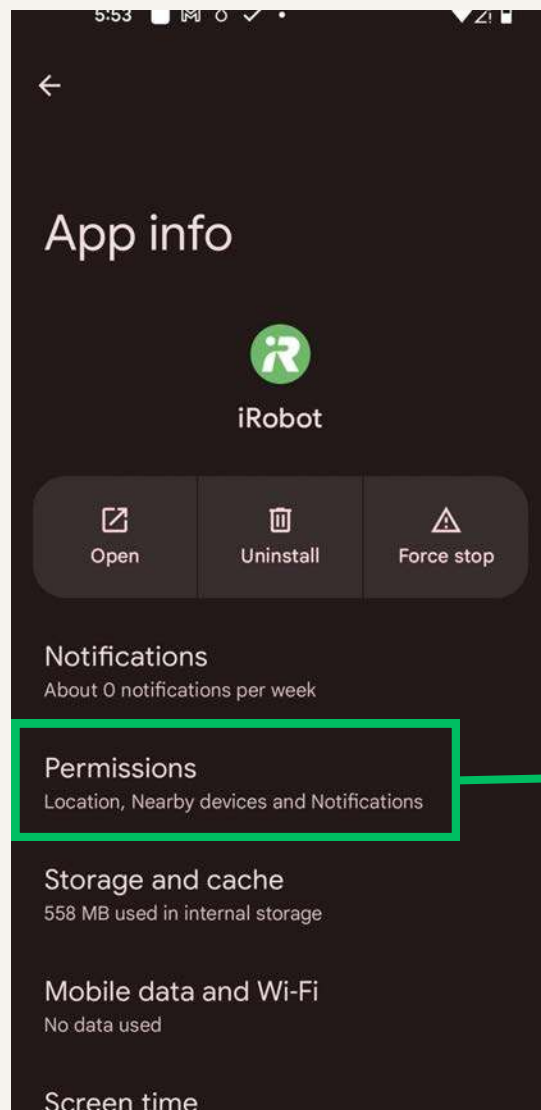
Legal



- No direct privacy settings configurations
- Some configuration options are available to control Ads.
- Privacy and Legal displays information only without options.

IROBOT ROBOT VACUUM

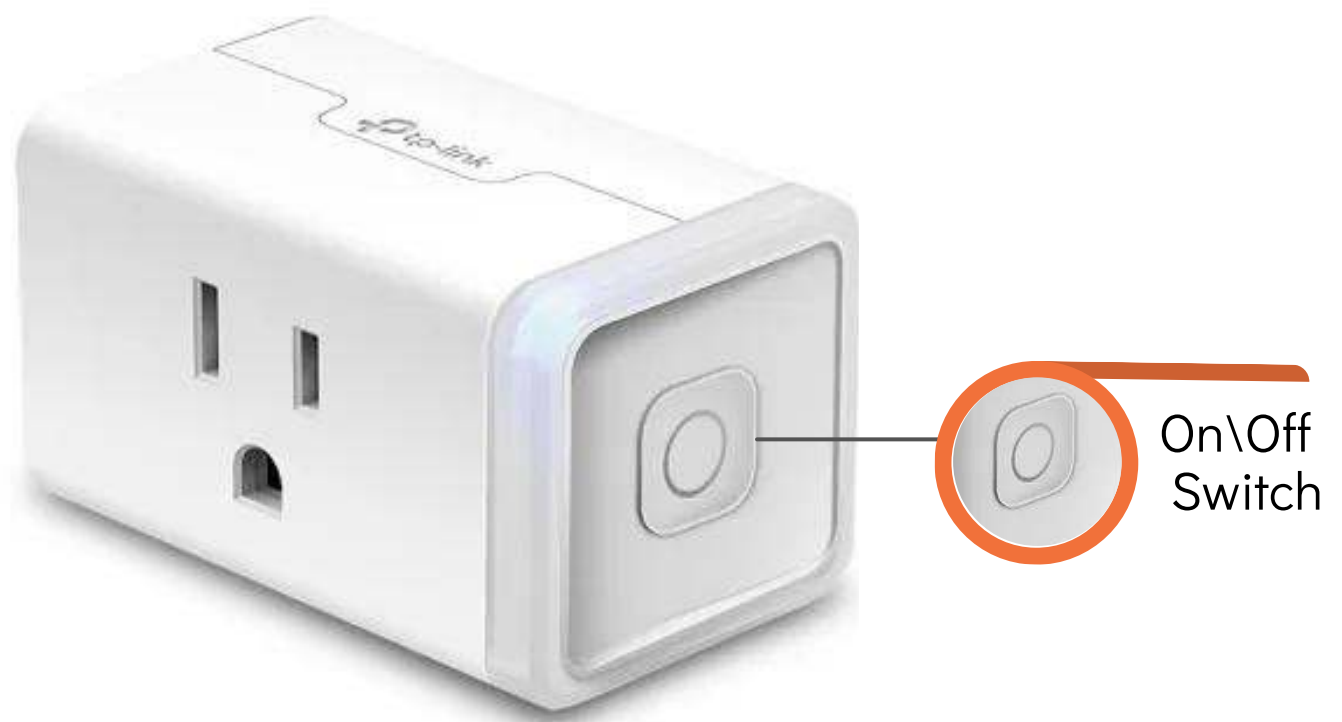
iRobot Mobile App Permissions



iRobot mobile app: Roomba line of robotic vacuum cleaners, iRobot is a pioneer in home automation and robotics, providing solutions for floor cleaning and maintenance.

Main app permissions are **Location** and **Notifications**

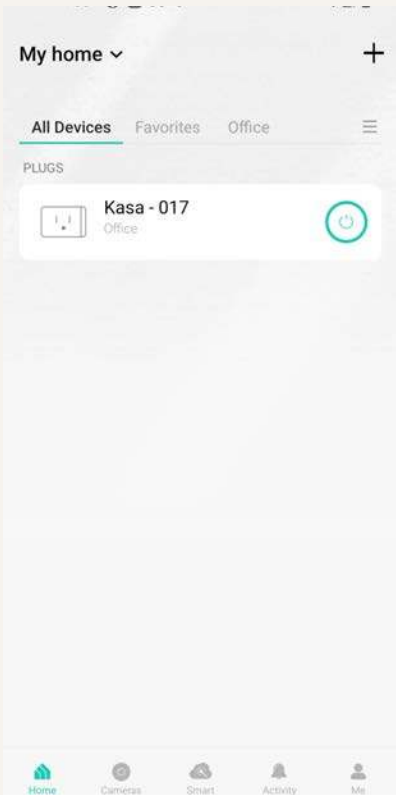
TP-Link Smart Plug



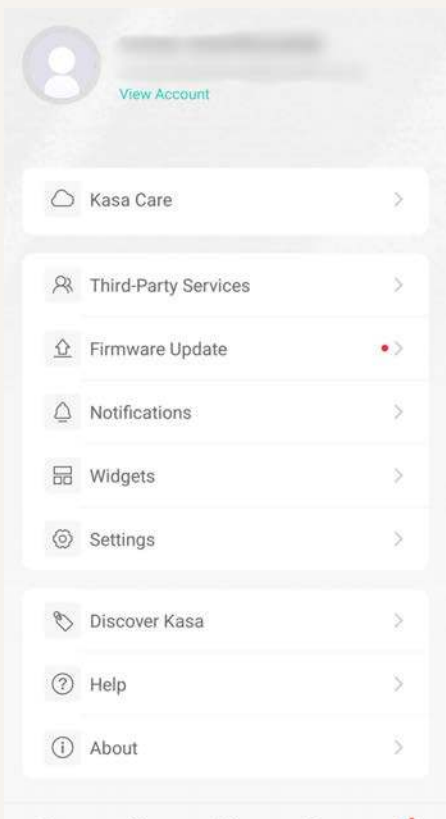
TP-LINK SMART PLUG

Kasa Mobile App Privacy Settings

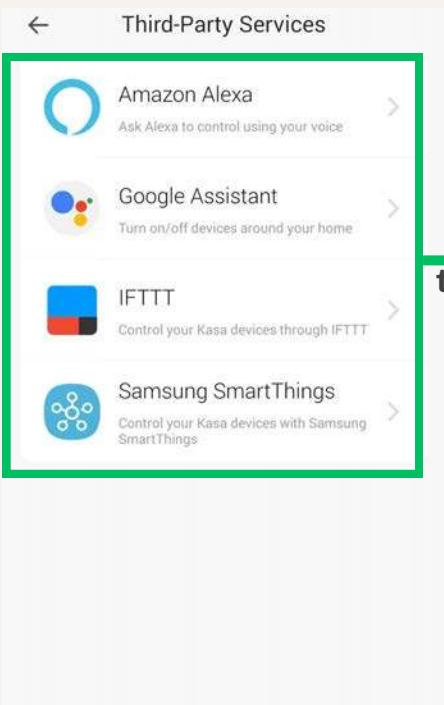
Home Screen



Profile

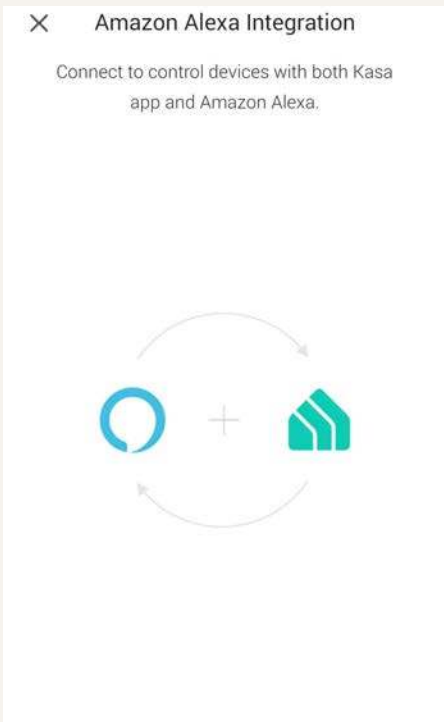


Third-Party Services

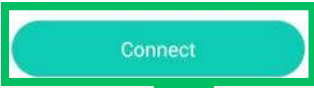


Options for
third parties
sharing

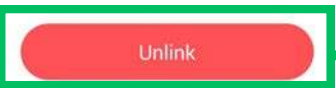
Third-Party Services



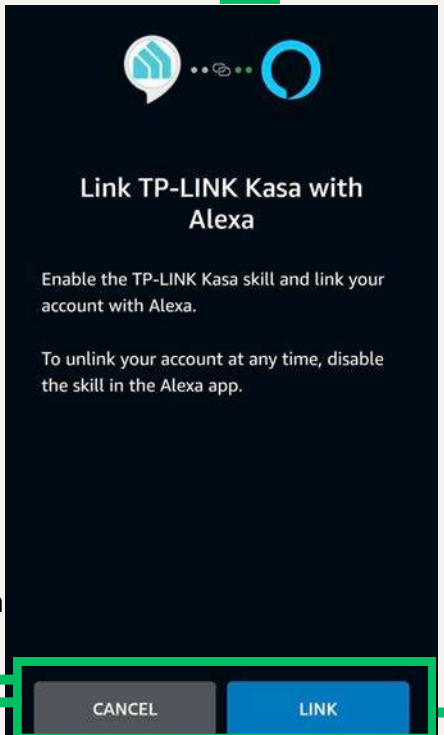
Action button
sharing



Action button sharing
opt-out option



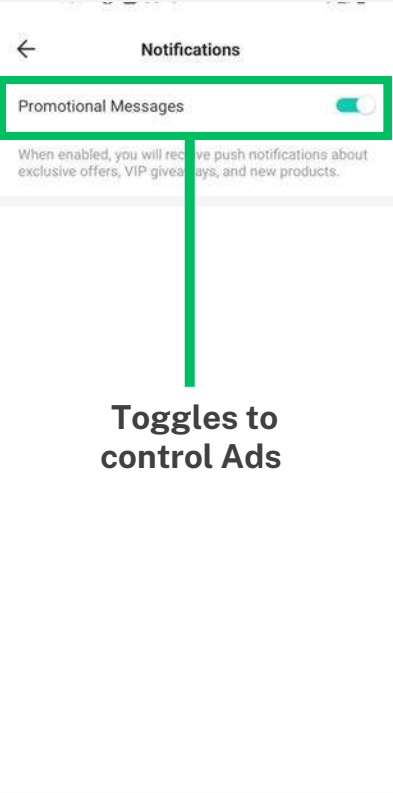
Action button
sharing confirmation



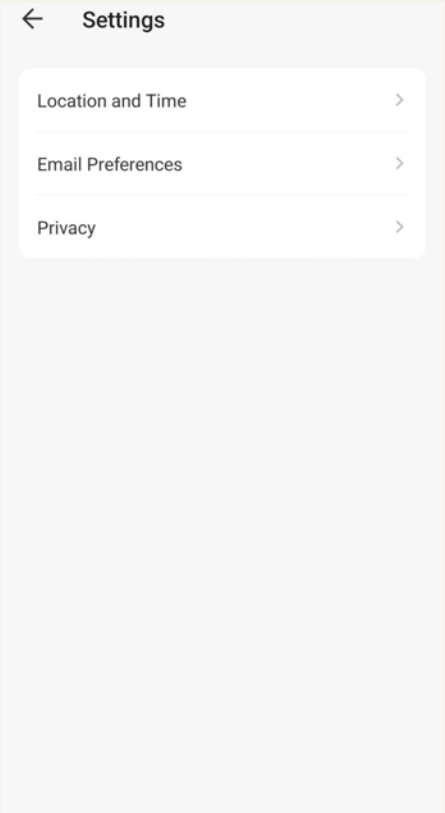
TP-LINK SMART PLUG

Kasa Mobile App Privacy Settings

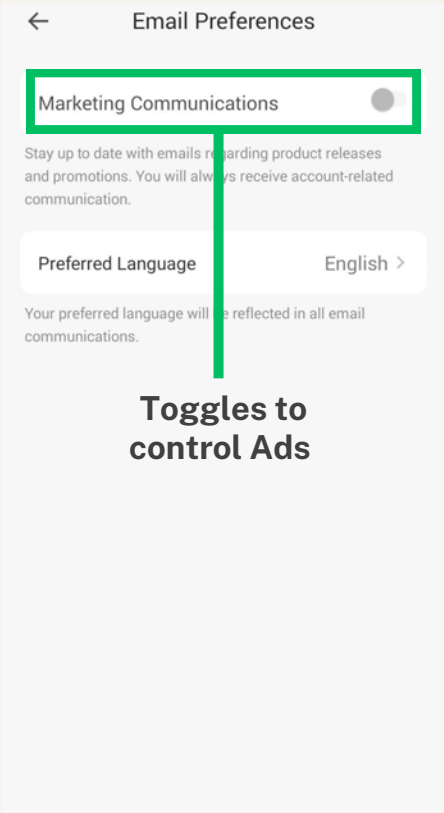
Profile - Notifications



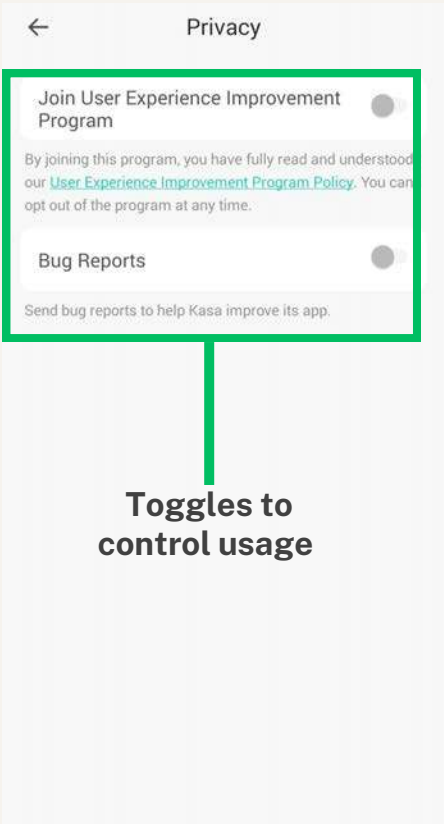
Profile - Settings



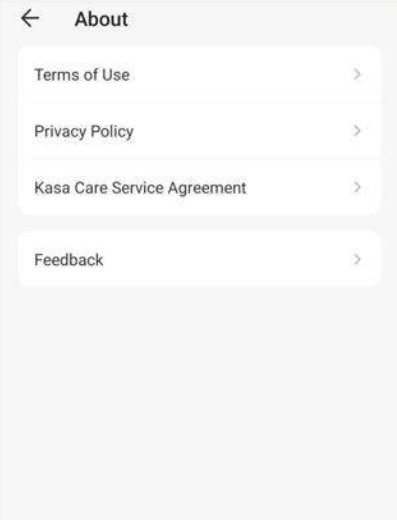
Profile - Settings email preferences



Profile - Settings Privacy



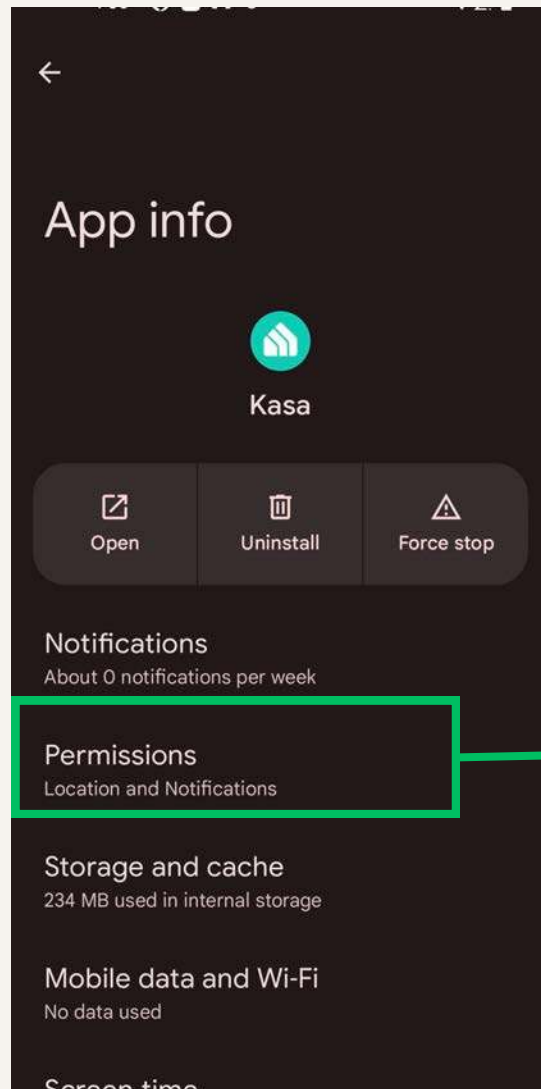
Profile - About



- Direct privacy settings configurations (Sharing and Usage)
- Some configuration options are available to control Ads.
- Privacy provides options and displays information .

TP-LINK SMART PLUG

Kasa Mobile App Permissions



Kasa mobile app: TP-Link's smart home brand, offering products such as smart plugs, switches, cameras, and lighting.

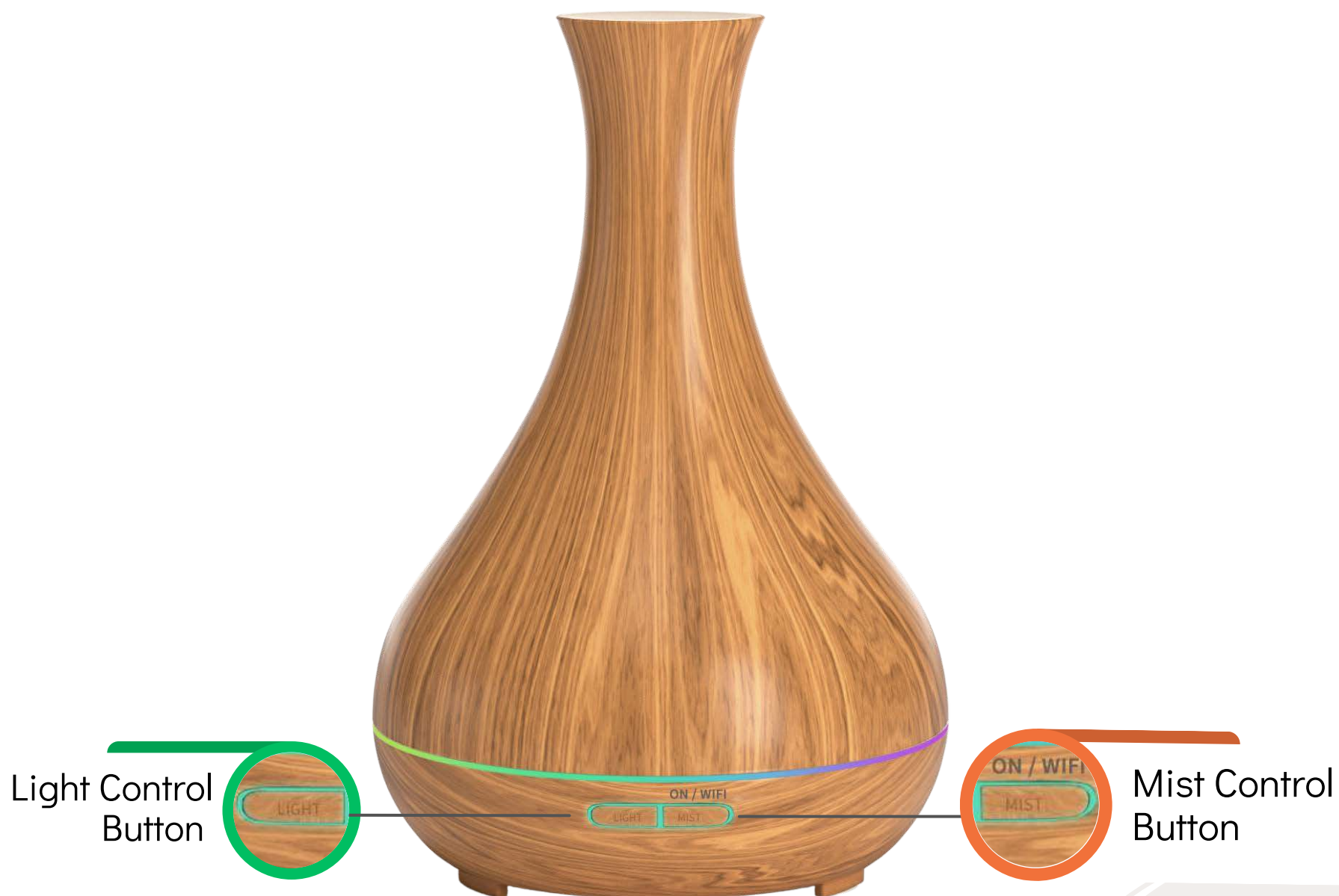
Main app permissions are **Location** and **Notifications**

Meross Smart Plug

On\Off
Switch



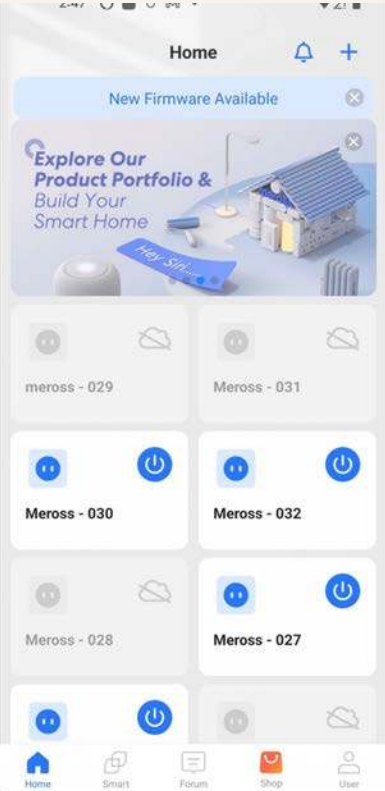
Meross Oil Diffuser



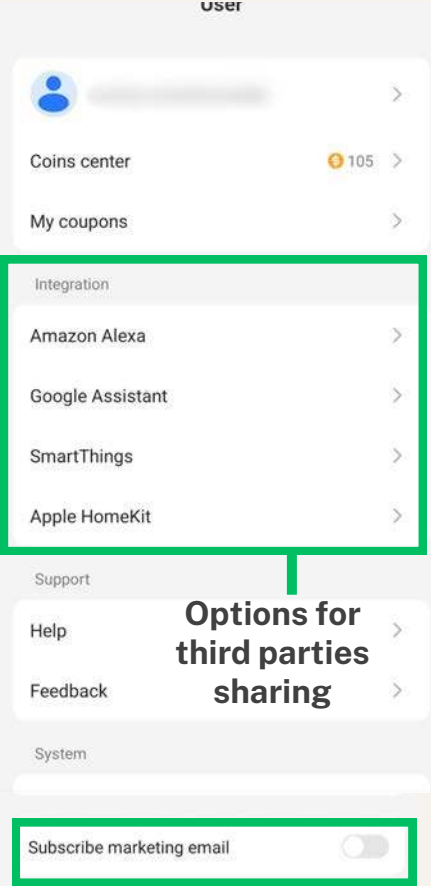
MEROSS SMART PLUG AND MEROSS OIL DIFFUSER

Meross Mobile App Privacy Settings

Home Screen



Profile



Options for
third parties
sharing

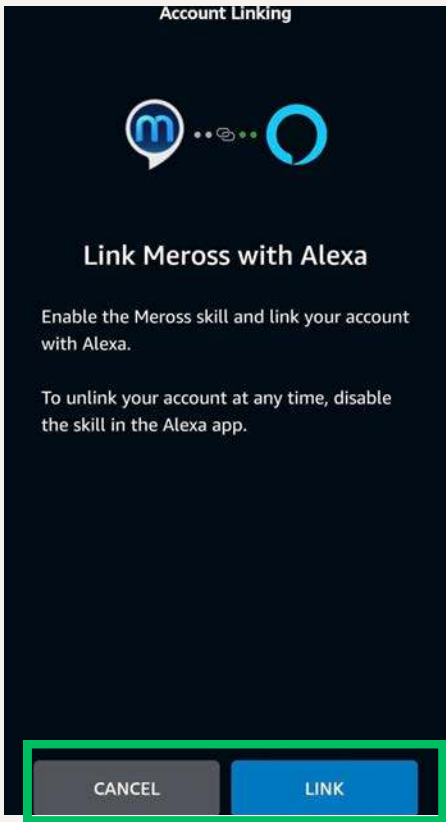
Toggles to
control Ads.

Third-Party Services

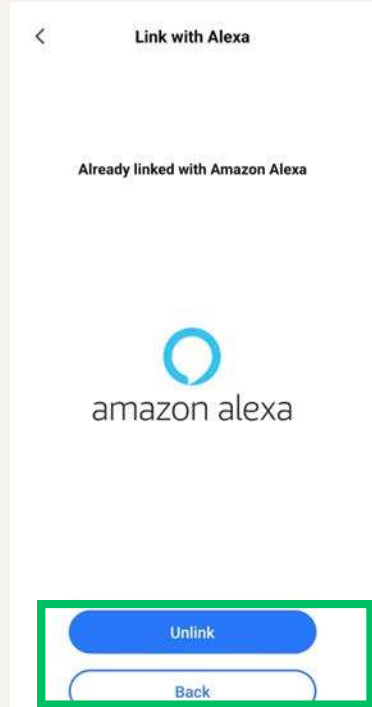
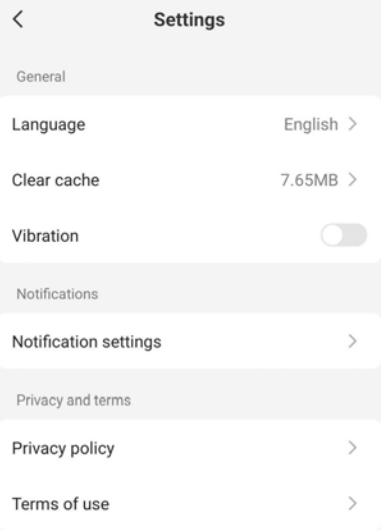


Action button
sharing

Third-Party Services



Action button
sharing
confirmation

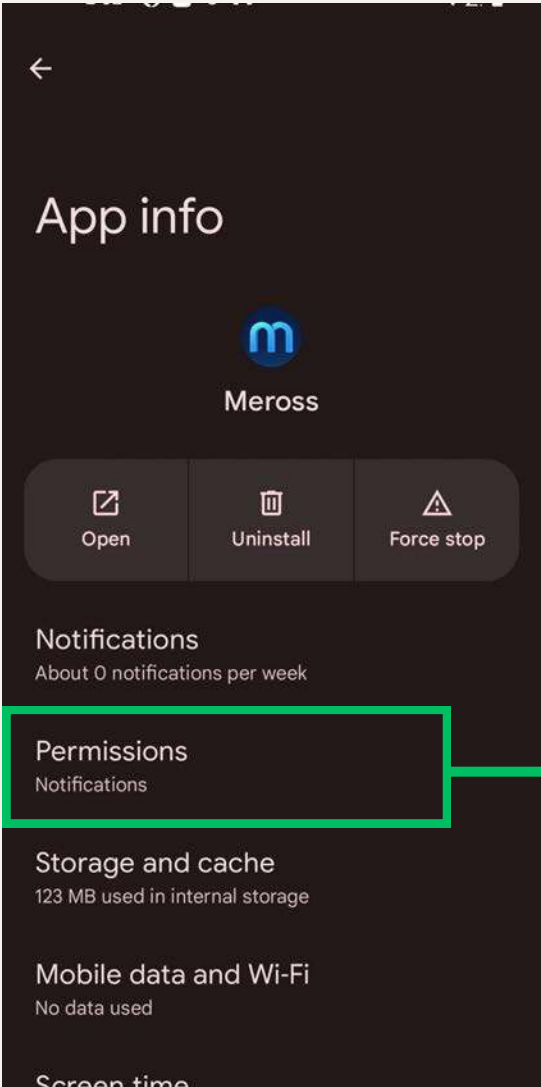


Action button
sharing opt-
out option

- Privacy settings configurations (Sharing).
- Configuration options to control Ads.
- Privacy provides options and displays information .

MEROSS SMART PLUG AND MEROSS OIL DIFFUSER

Meross Mobile App Permissions

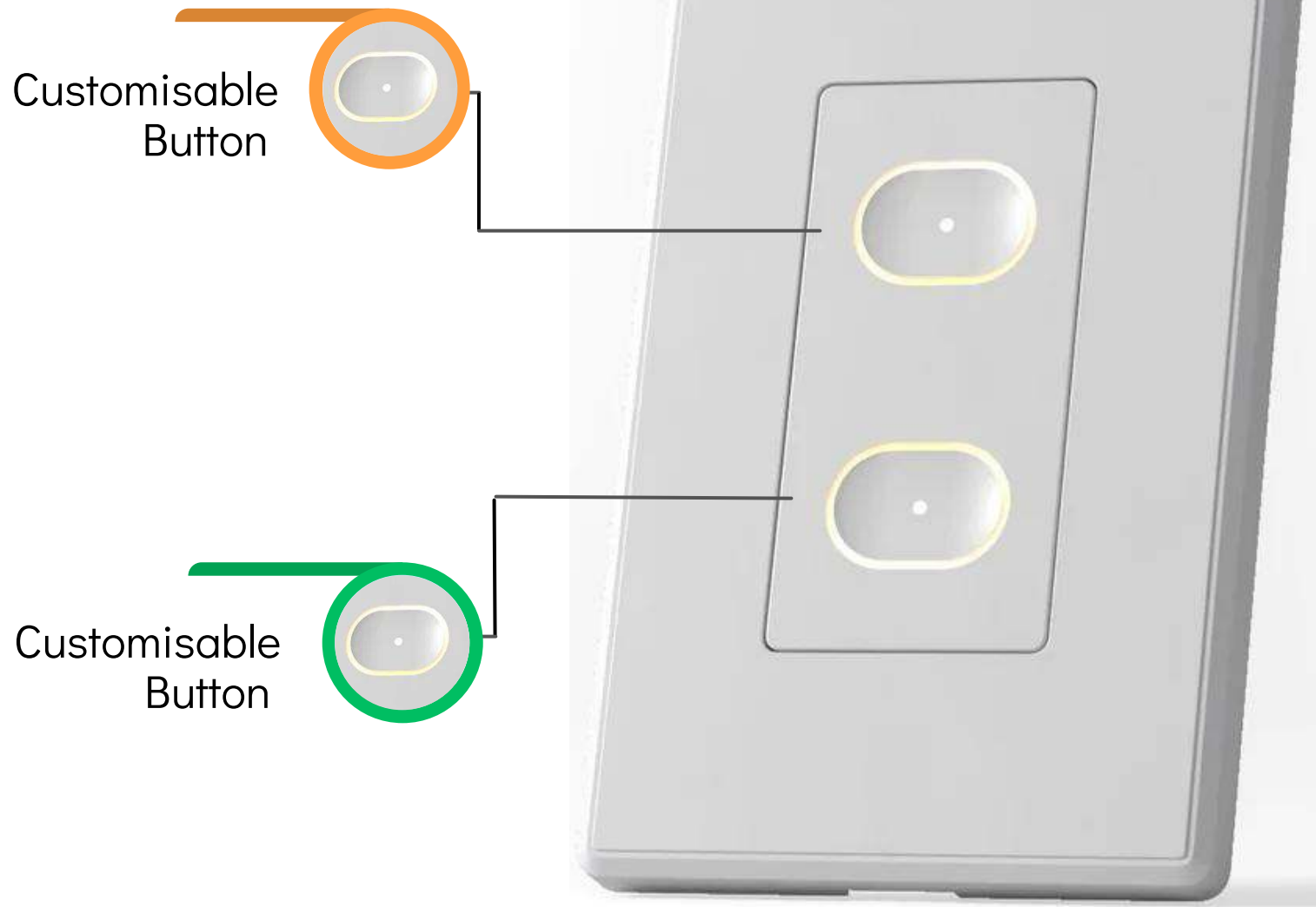


Main app
permissions are
Notifications.



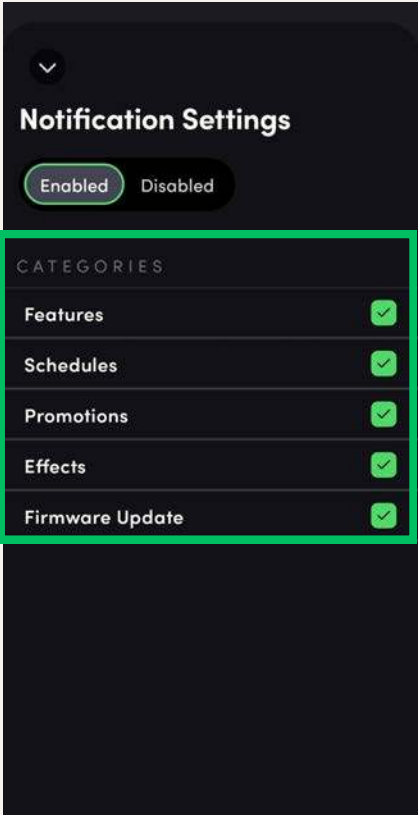
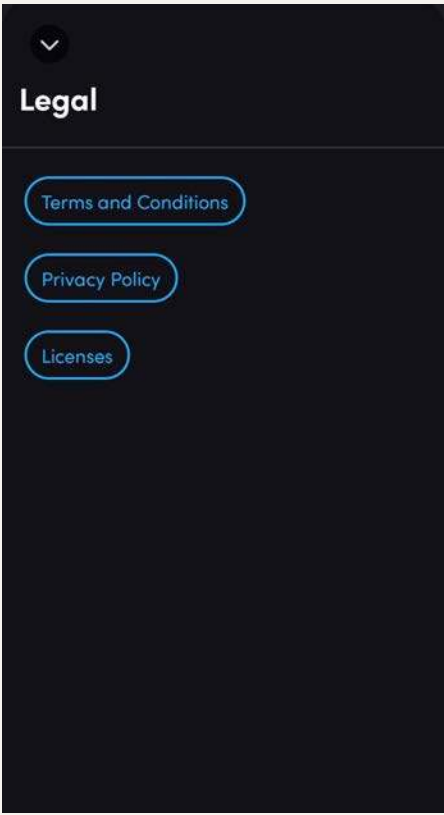
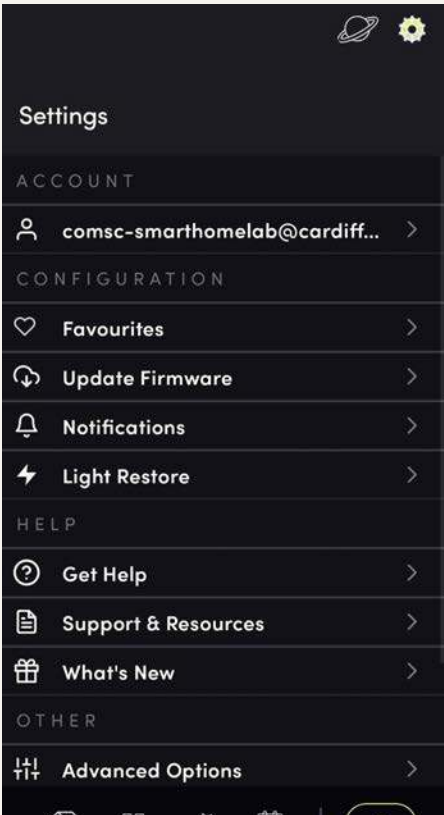
Meross mobile app: Meross is a brand that offers a range of smart home devices, including smart plugs, switches, bulbs, and garage door openers. These devices can be controlled remotely via smartphone apps and are compatible with voice assistants like Amazon Alexa and Google Assistant.

LIFX Smart Switch






LIFX SMART SWITCH

LIFX Mobile App Privacy Settings

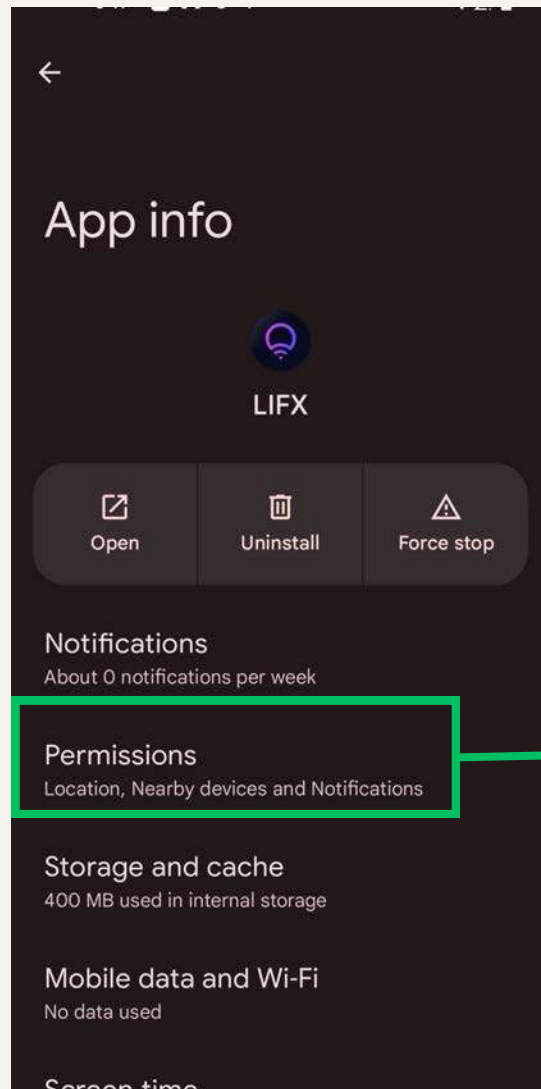


Checkboxes to control Ads

-  No direct privacy settings configurations.
-  Some configuration options are available to control Ads.
-  Legal displays information only without options.

LIFX SMART SWITCH

LIFX Mobile App Permissions



LIFX mobile app: A brand of smart LED light bulbs and light strips that can be controlled remotely via smartphone apps or integrated with various smart home ecosystems like Google Home or Amazon Alexa.

Main app permissions are **Location** and **Notifications**

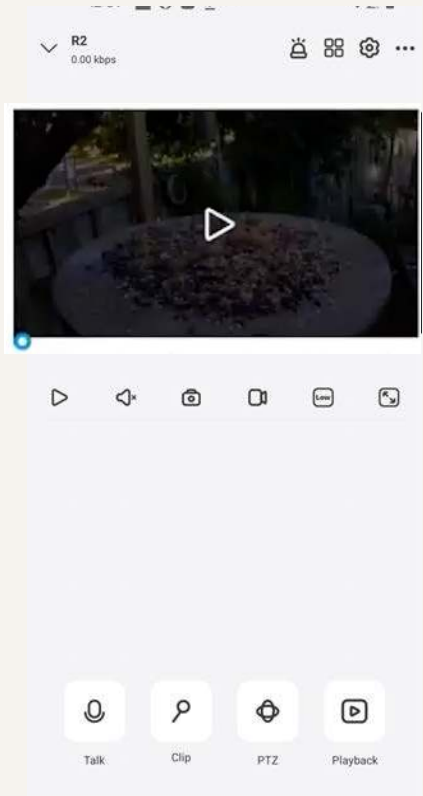
Reolink Video Doorbell



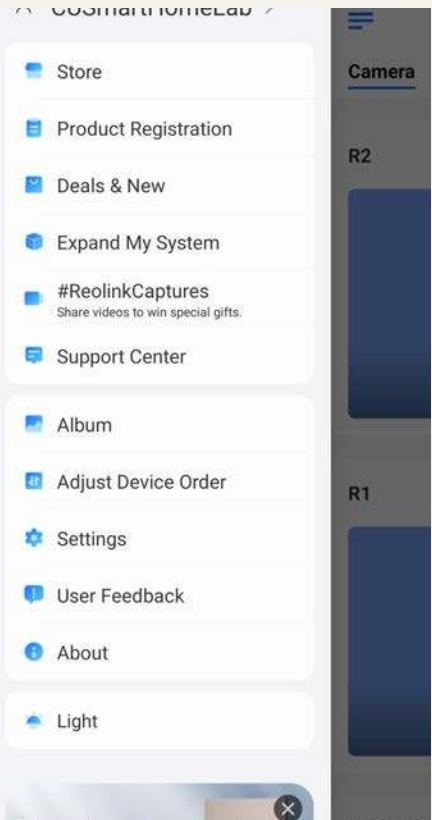
REOLINK VIDEO DOORBELL

Reolink Mobile App Privacy Settings

Home Screen



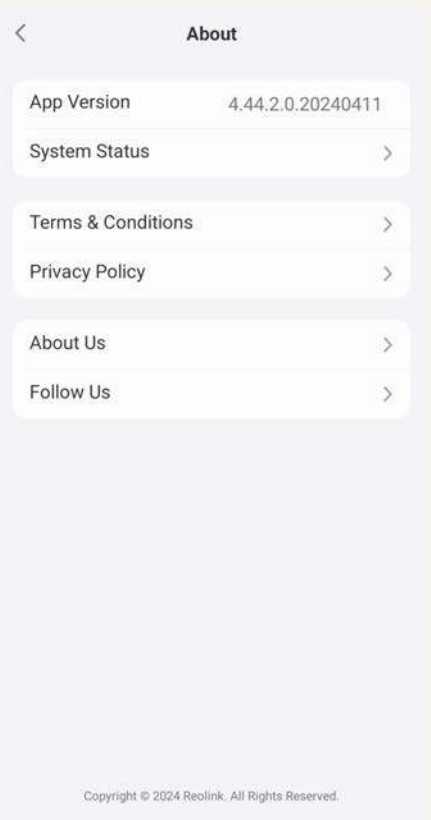
Menu



Settings



Menu - About



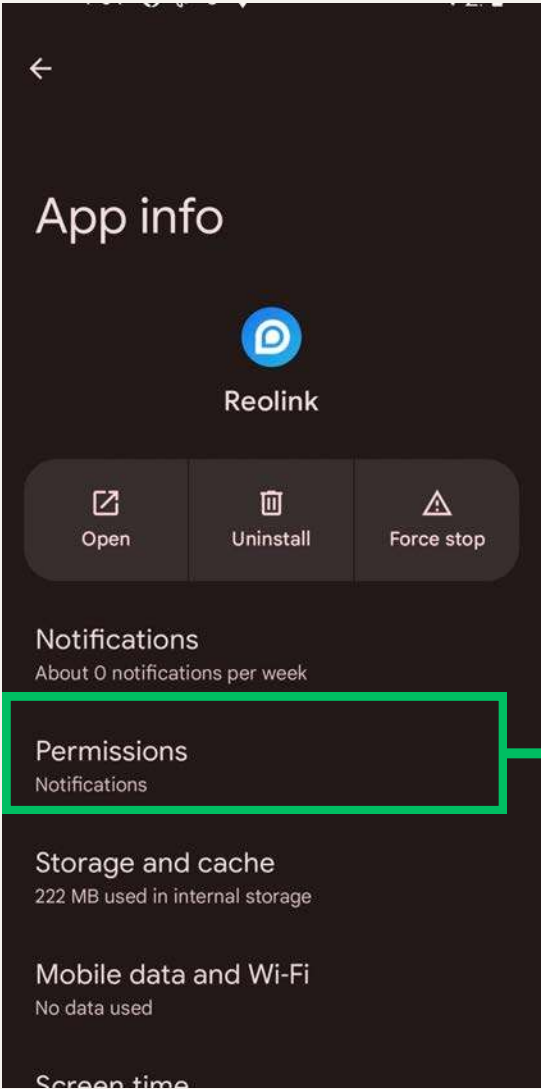
**Toggle to
control usage**

Privacy settings configurations (Usage).

Privacy only displays information.

REOLINK VIDEO DOORBELL

Reolink Mobile App Permissions



Main app permissions are **Notifications.**



Reolink mobile app: Reolink specializes in home security cameras and systems, offering both wired and wireless solutions for indoor and outdoor surveillance.

Nuki Lock Opener

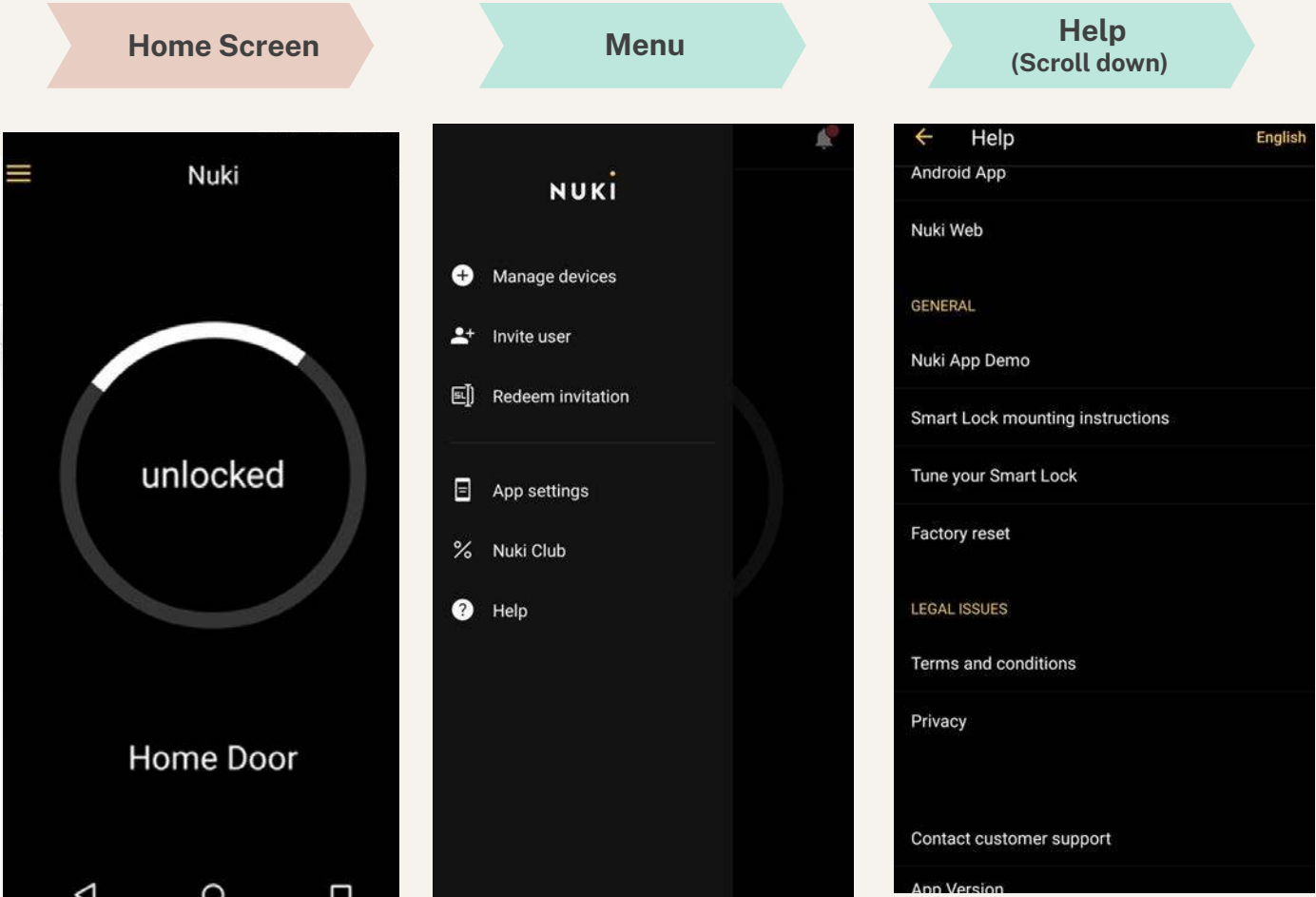


Nuki Smart Lock



NUKI SMART LOCK AND NUKI OPENER

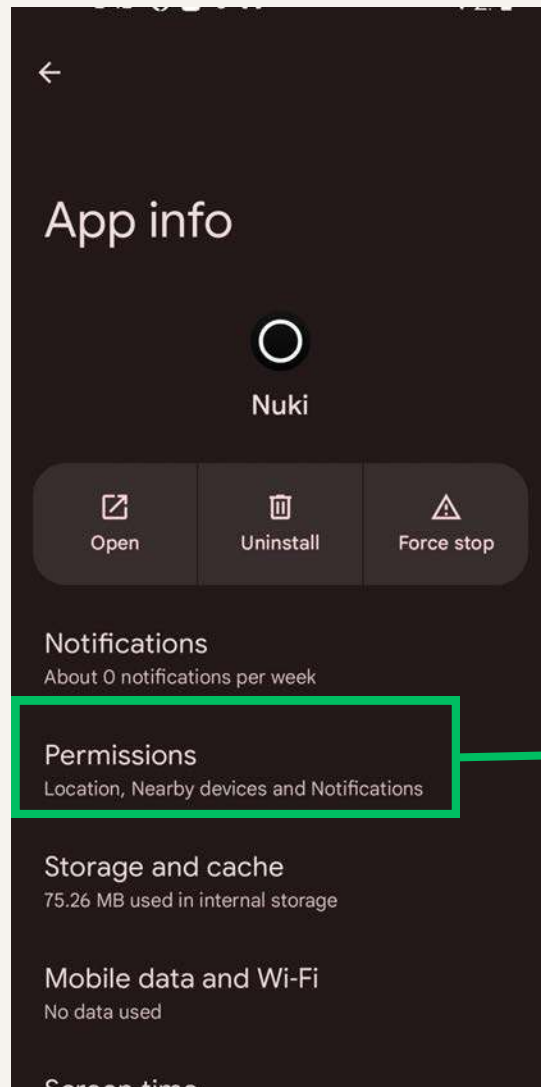
Nuki Mobile App Privacy Settings



- No privacy settings configurations.
- Privacy displays information only without options.

NUKI SMART LOCK AND NUKI OPENER

Nuki Mobile App Permissions



Nuki mobile app: Nuki produces smart door locks that can be controlled remotely via smartphone apps. They offer various features such as auto-unlock, virtual keys, and integration with smart home ecosystems.

Main app permissions are **Location** and **Notifications**

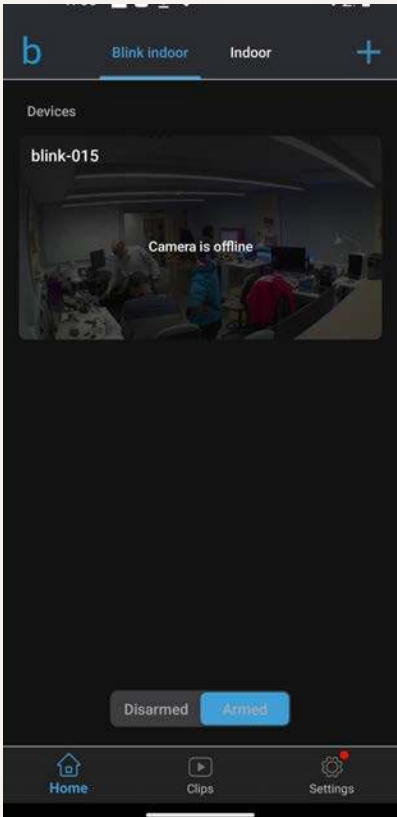
Blink Video Doorbell



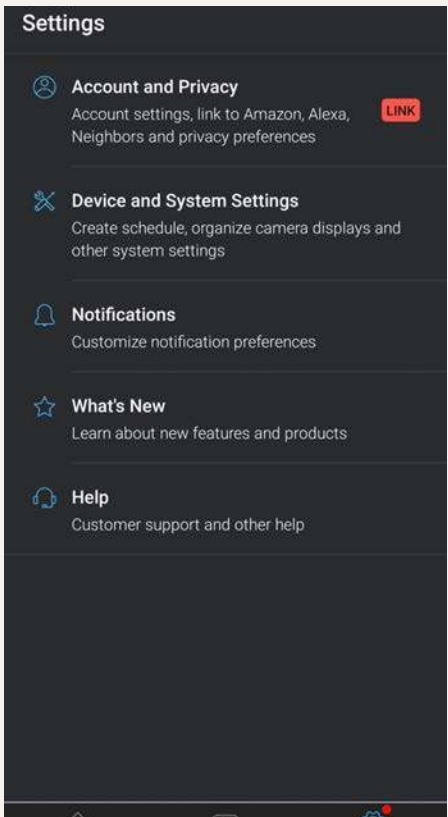
BLINK VIDEO DOORBELL

Blink Mobile App Privacy Settings

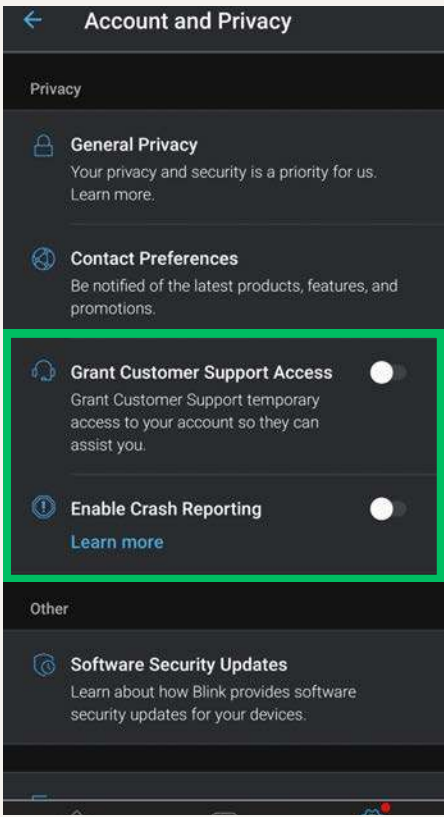
Home Screen



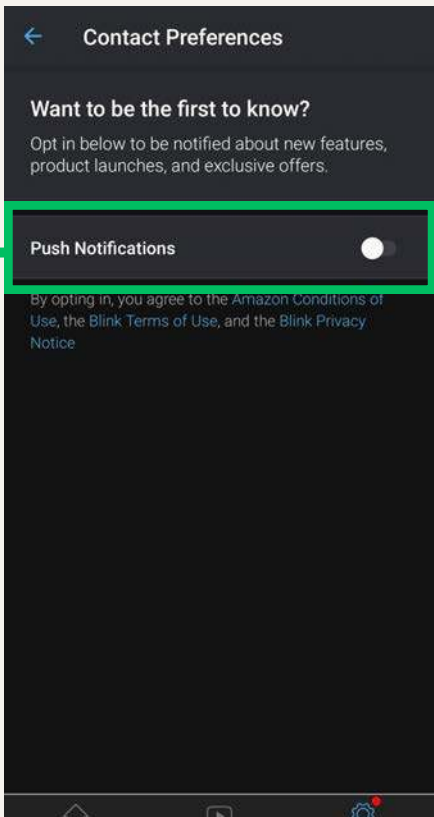
Setting



Privacy



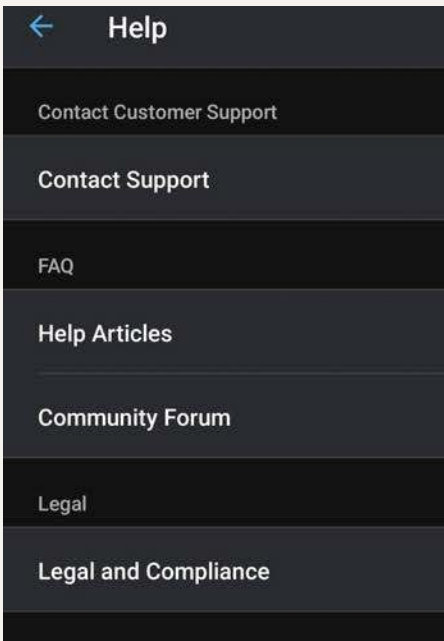
Privacy - Preferences



Toggle to control Ads.

Toggle to control sharing.

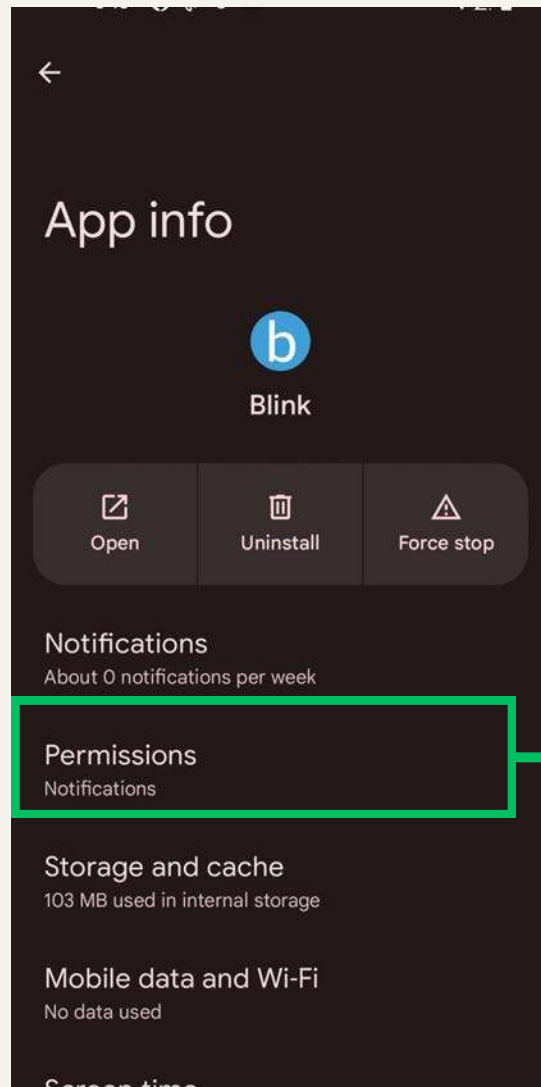
Setting - Help



- Privacy settings configurations (Sharing).
- Configuration options are available to control Ads.
- Legal displays information.

BLINK VIDEO DOORBELL

Blink Mobile App Permissions



Blink mobile app: Blink is a brand of home security cameras and systems owned by Amazon. Their products offer features such as motion detection, HD video recording, and integration with the Blink app for remote monitoring and control.

Main app
permissions are
Notifications.

Tapo Home Camera

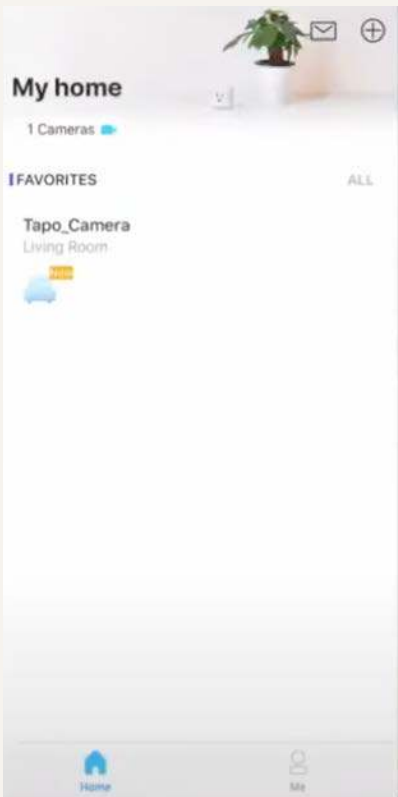


Lens Conceal
Button

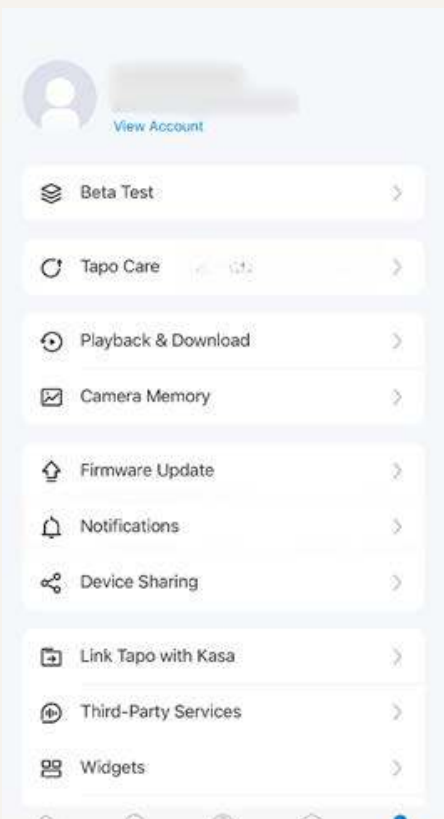
TAPO HOME CAMERA

Tapo Mobile App Privacy Settings

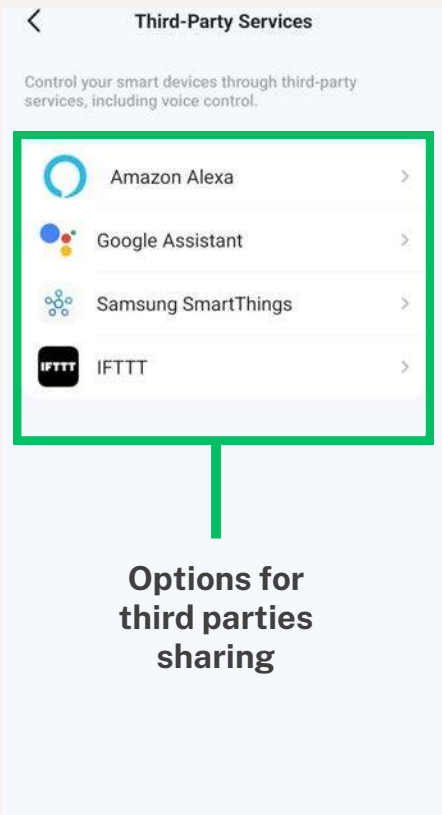
Home Screen



Profile

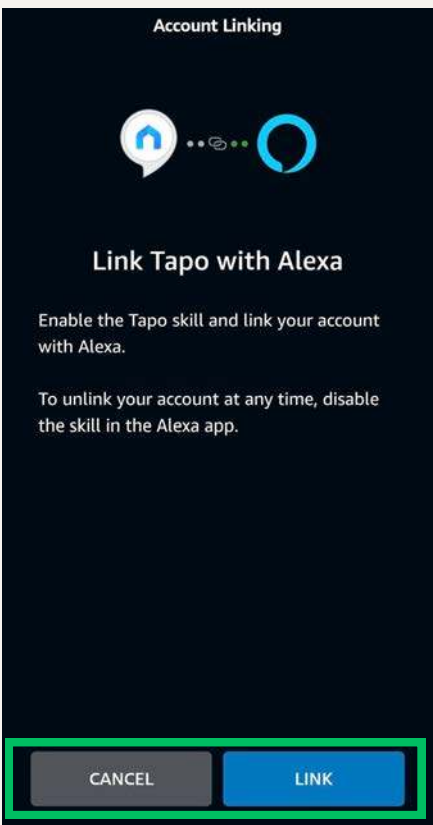


Third-Party Services

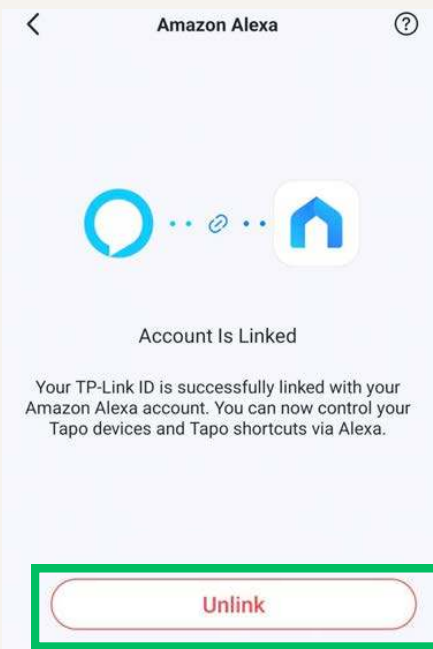


Options for
third parties
sharing

Third-Party Services



Action button
sharing
confirmation

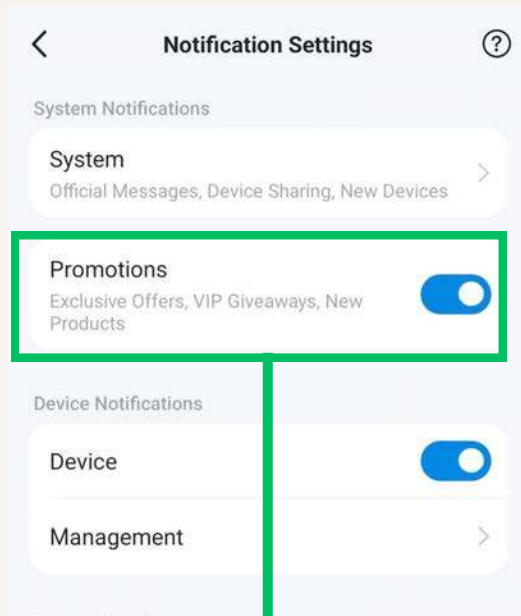


Action button
sharing opt-
out option

TAPO HOME CAMERA

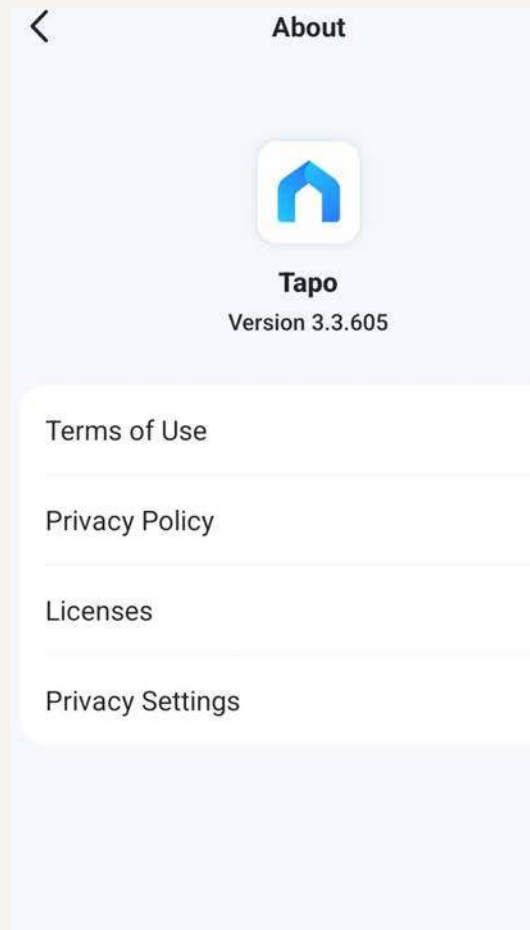
Tapo Mobile App Privacy Settings

Profile - Notifications

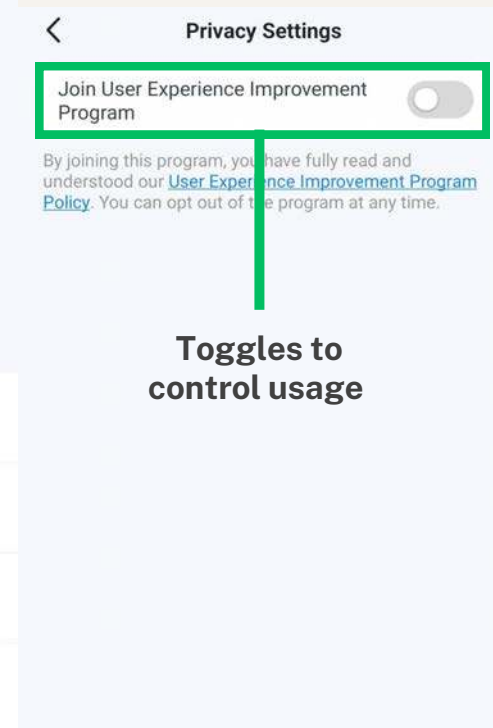


**Toggles to control
Ads.**

Profile - About (Scroll down)



Privacy Settings



**Toggles to
control usage**

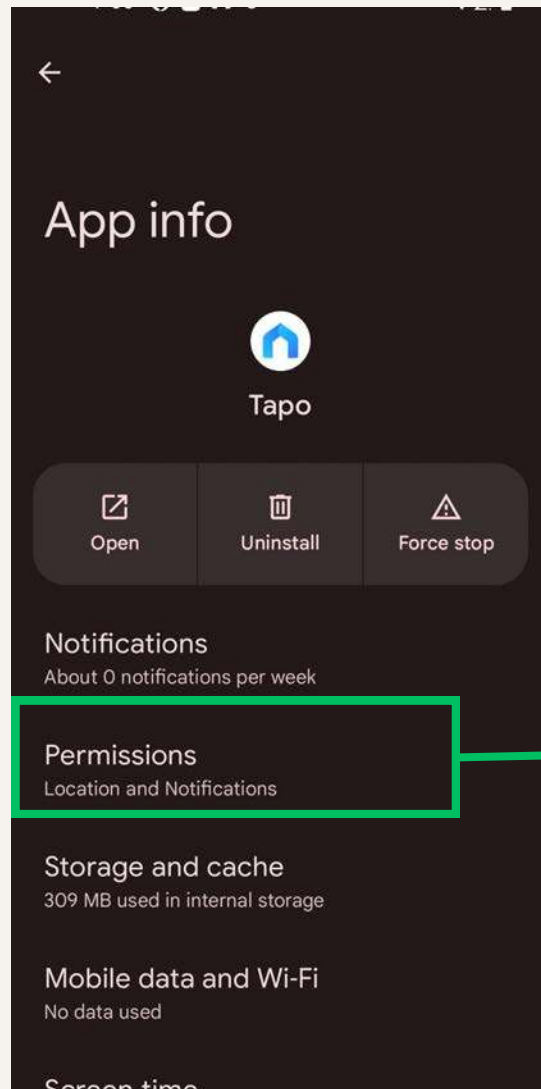
● Direct privacy settings configurations (Sharing and Usage).

● Configuration options are available to control Ads.

● Privacy provides options and displays information .

TAPO HOME CAMERA

Tapo Mobile App Permissions



Tapo mobile app: Tapo is a brand that offers smart home devices such as smart plugs, smart bulbs, and security cameras. These devices can be controlled remotely via a smartphone app.

Main app permissions are **Location** and **Notifications**

BOSCH Built-in Oven

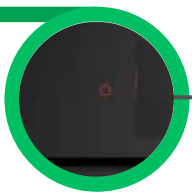
On\Off Button



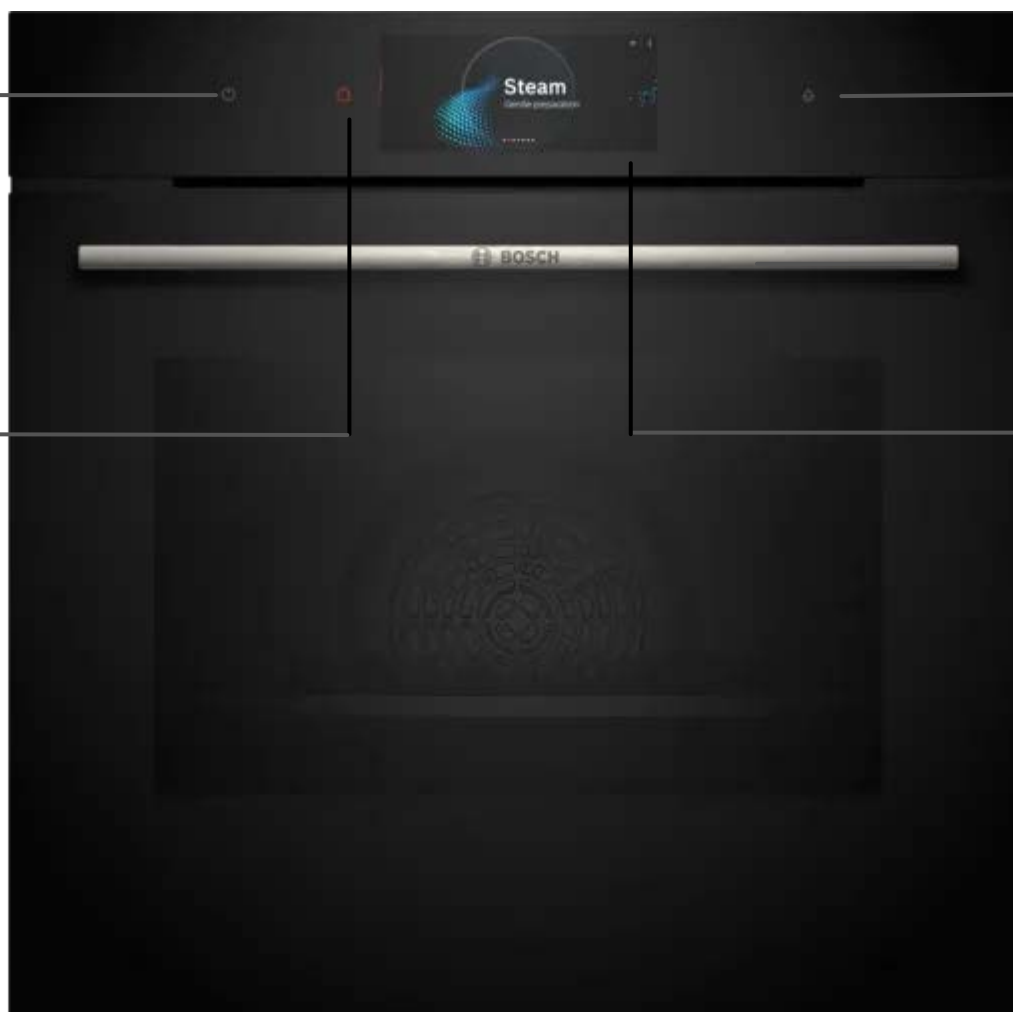
Control Panel
Button



Operating Modes
Button



Setting Ring



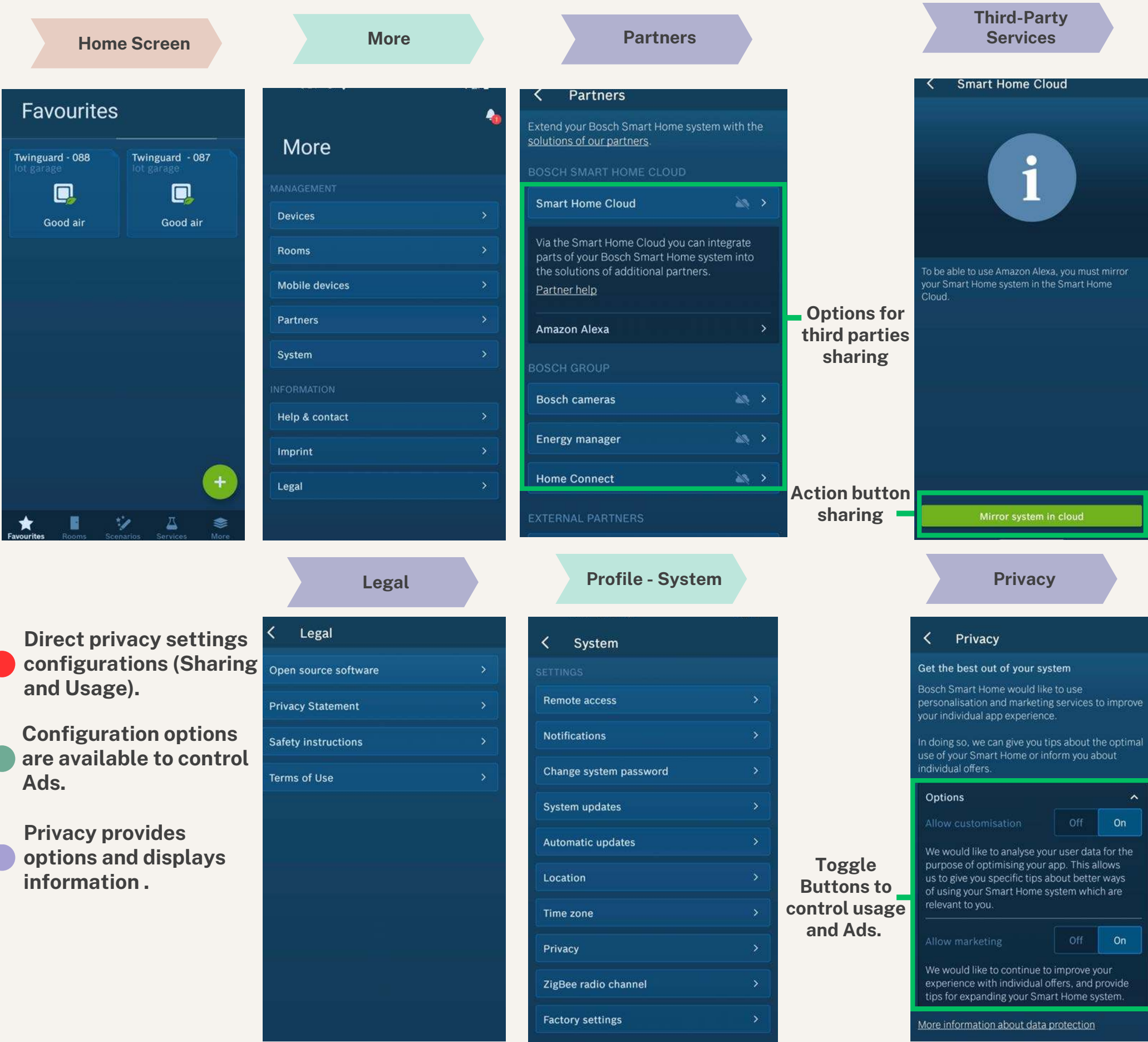
BOSCH

Room Thermostat



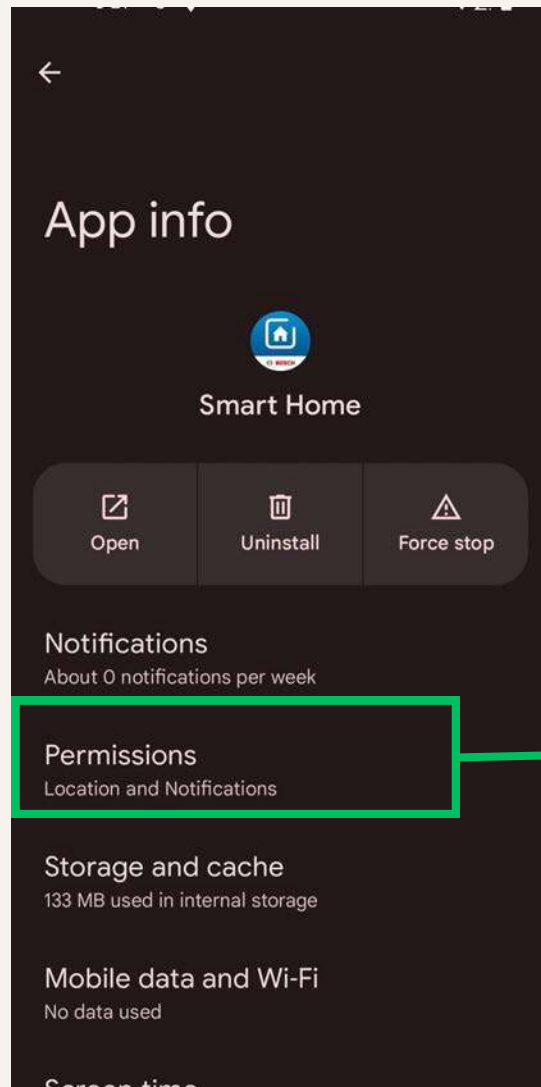
BOSCH ROOM THERMOSTAT AND BOSCH BUILT-IN OVEN

Bosch Smart Home Mobile App Privacy Settings



BOSCH ROOM THERMOSTAT AND BOSCH BUILT-IN OVEN

Bosch Smart Home Mobile App Permissions



Bosch Smart Home mobile app: The Bosch app is designed to provide a seamless and integrated experience for managing and controlling Bosch smart home devices. The app serves as a central hub for controlling all Bosch smart home devices, including security systems, lighting, heating, and more.

Main app permissions are **Location** and **Notifications**.

Echo Dot Smart Speaker

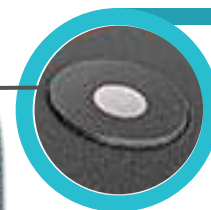


Echo Studio Smart Speaker

Microphone
Control Button



Action
Button



Volume Down
Button



Volume Up
Button



Echo Show Smart Speaker

Microphone/Camera
Control Button



Volume Up
Button



Volume Down
Button



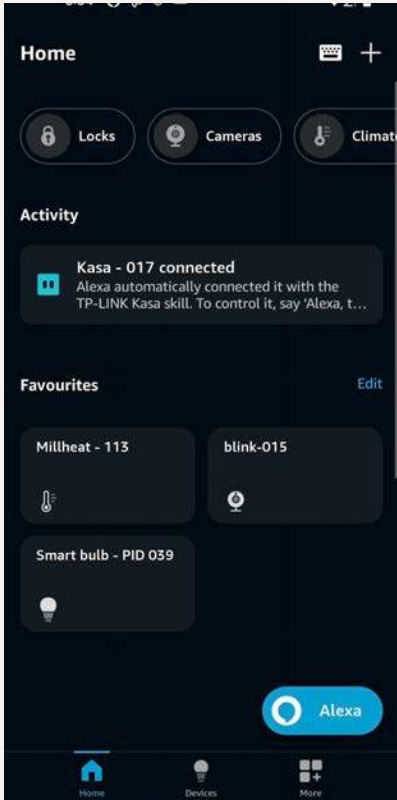
Camera Cover
Slider



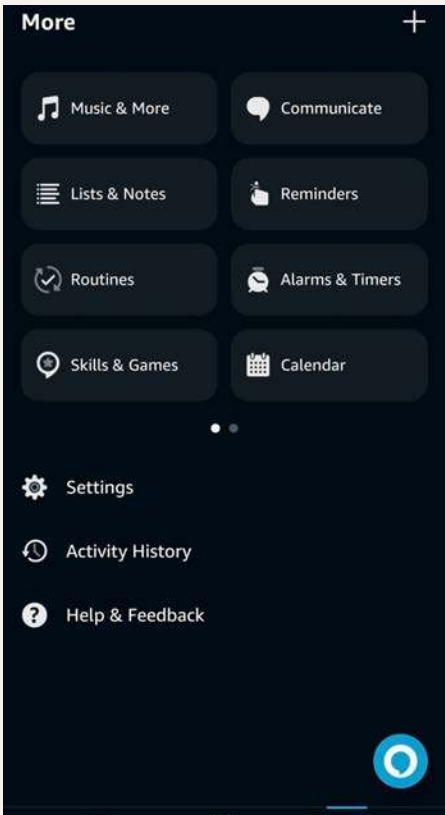
ECHO DOT, STUDIO, AND SHOW SMART SPEAKERS

Amazon Alexa Mobile App Privacy Settings

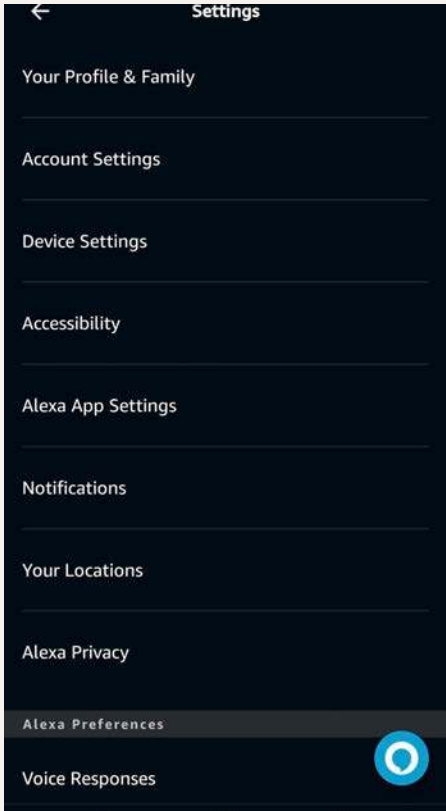
Home Screen



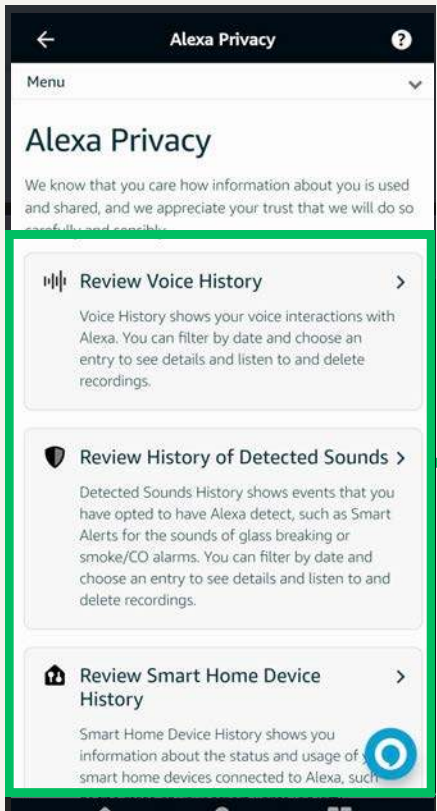
More



Settings



Privacy

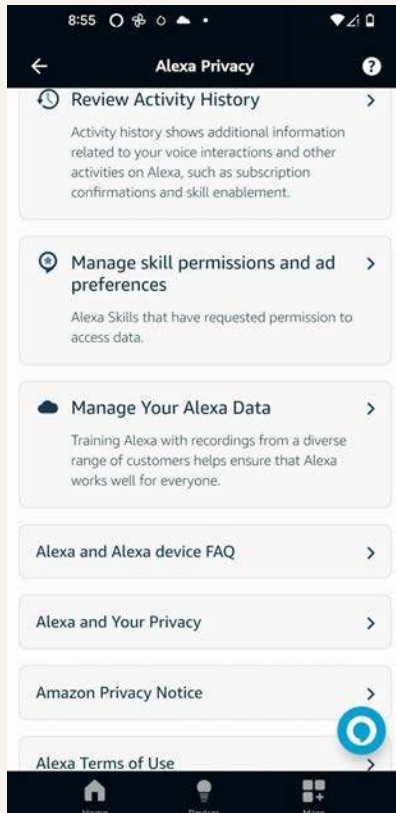


Menus to review history

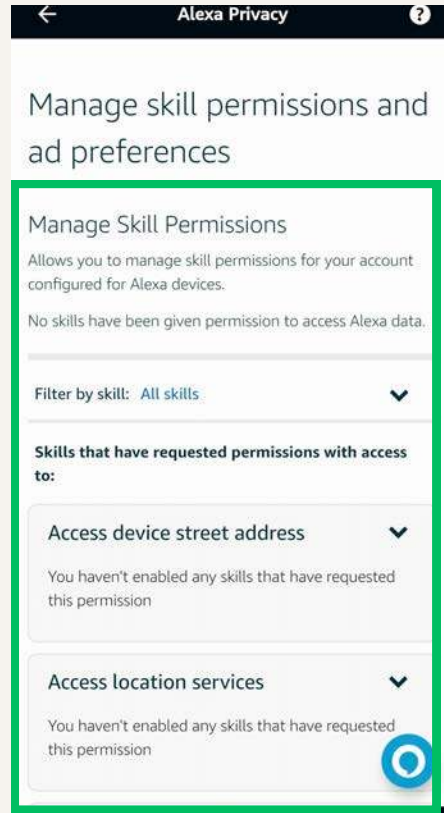
ECHO DOT, STUDIO, AND SHOW SMART SPEAKERS

Amazon Alexa Mobile App Privacy Settings

Privacy

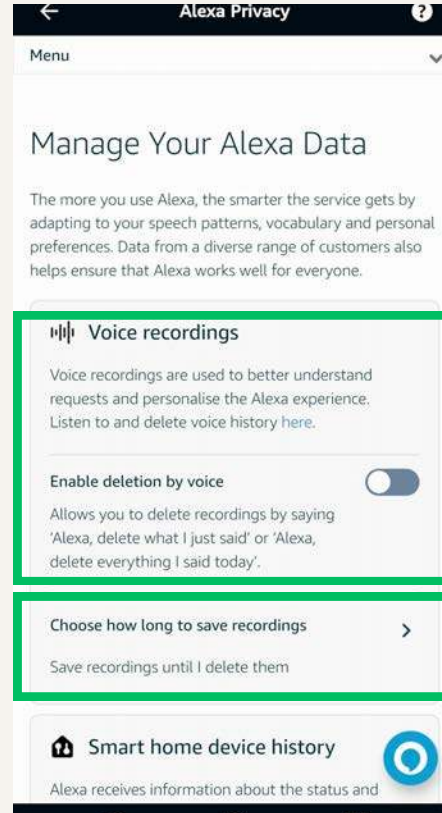


Privacy - Skills Permissions

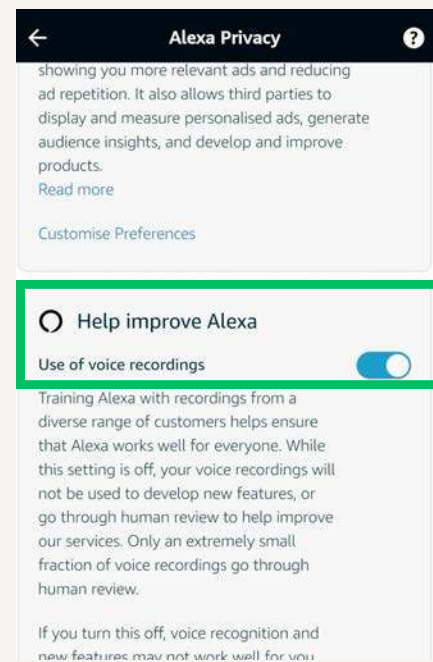


Menus to control sharing

Privacy - Manage Data



Privacy - Manage Data

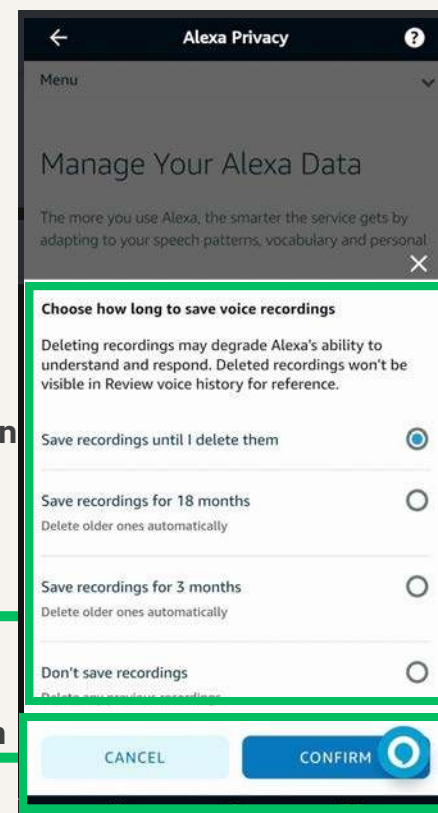


Toggle to control retention

Radio buttons to control retention

Action button to confirm retention

Privacy - Manage Data



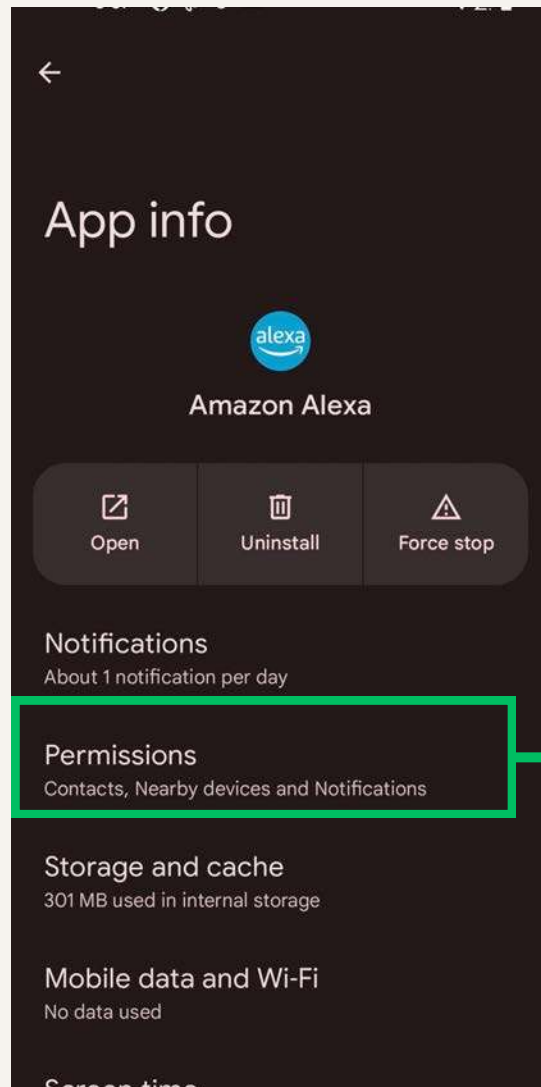
Direct privacy settings configurations (Sharing, Usage and Retention).

Privacy provides optins and displays information.

Toggle to control usage

ECHO DOT, STUDIO, AND SHOW SMART SPEAKERS

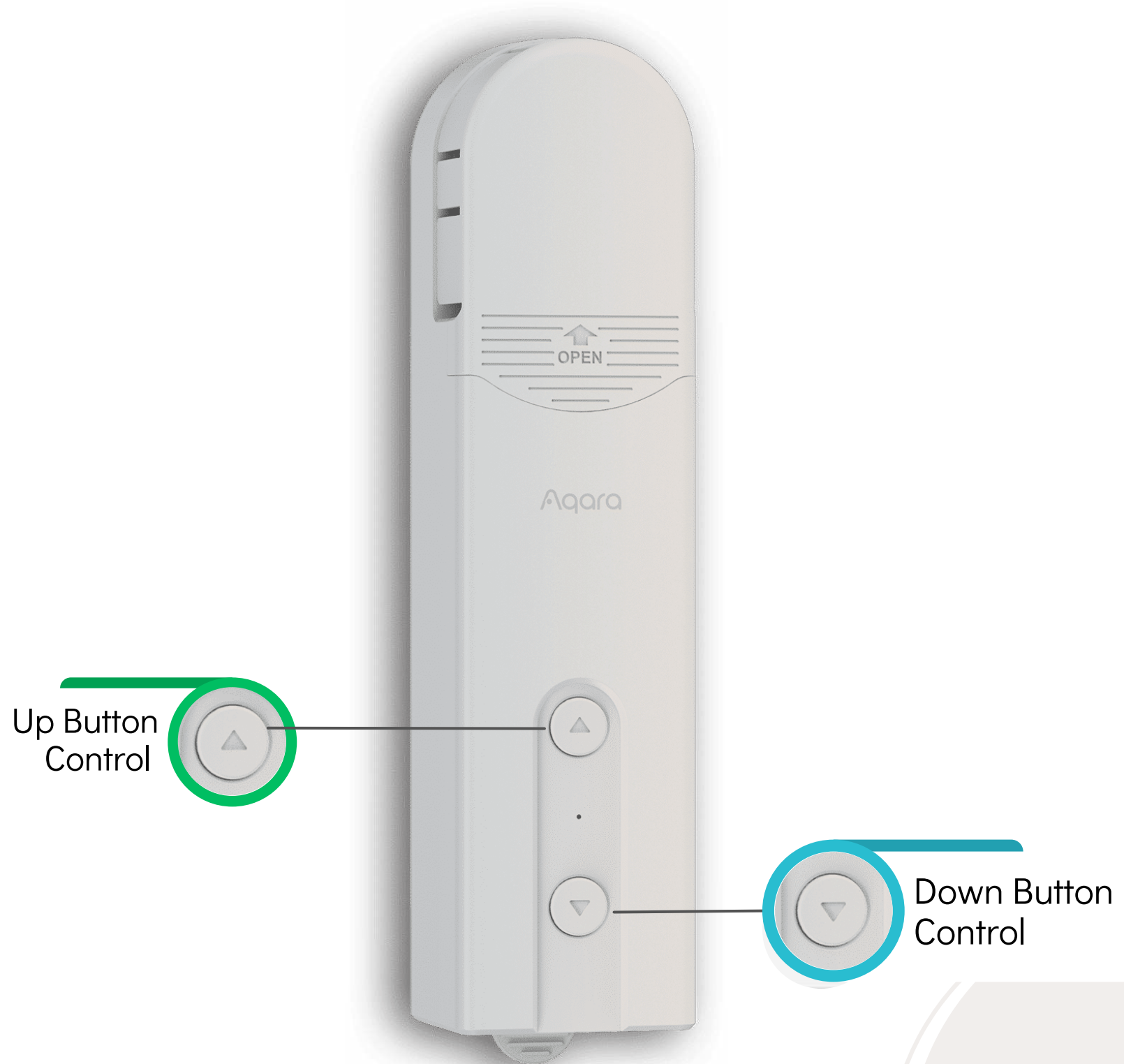
Amazon Alexa Mobile App Permissions



Amazon Alexa mobile app: Alexa is Amazon's voice-controlled virtual assistant. It powers the Amazon Echo line of smart speakers and can be integrated with various smart home devices and services to enable voice control and automation.

Main app permissions are Contacts and Notifications.

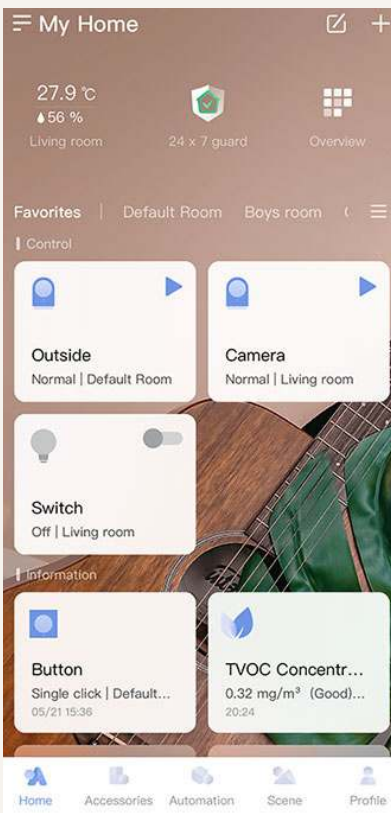
Aqara Roller Shade Driver



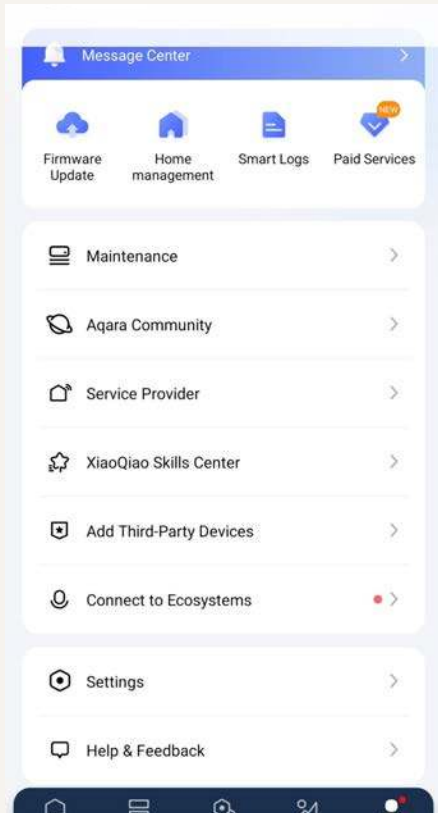
AQARA ROLLER SHADE DRIVER

Aqara Home Mobile App Privacy Settings

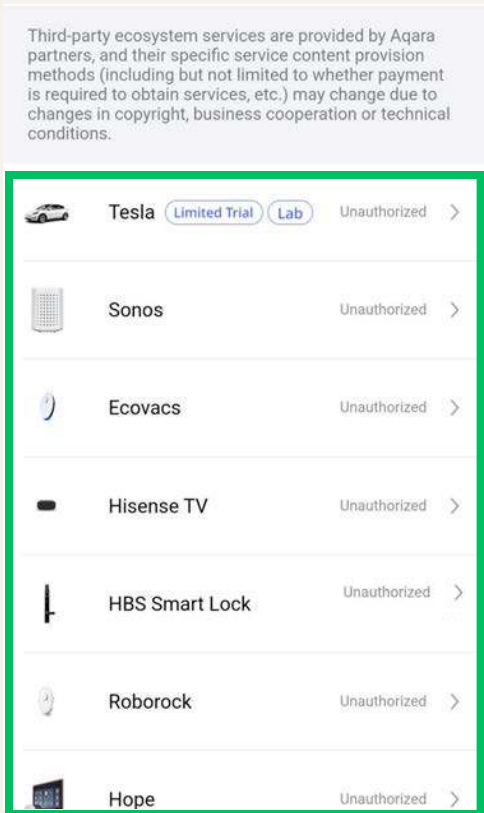
Home Screen



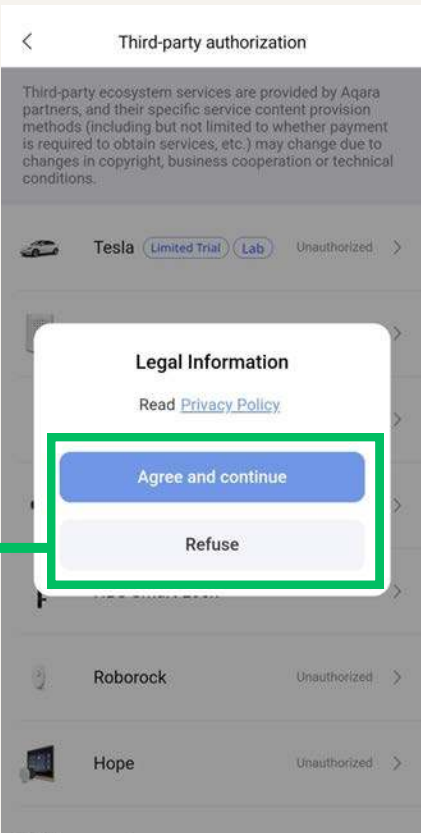
Profile



Third-Party Devices



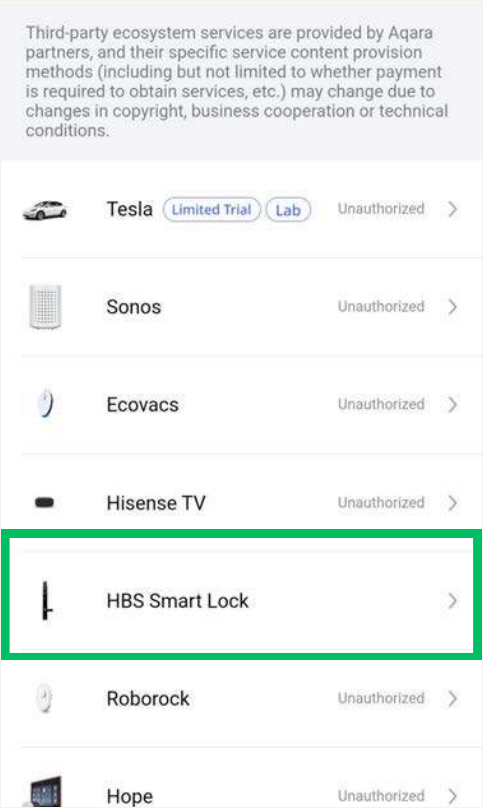
Third-Party Services



Options for
third parties
sharing

Action button
sharing

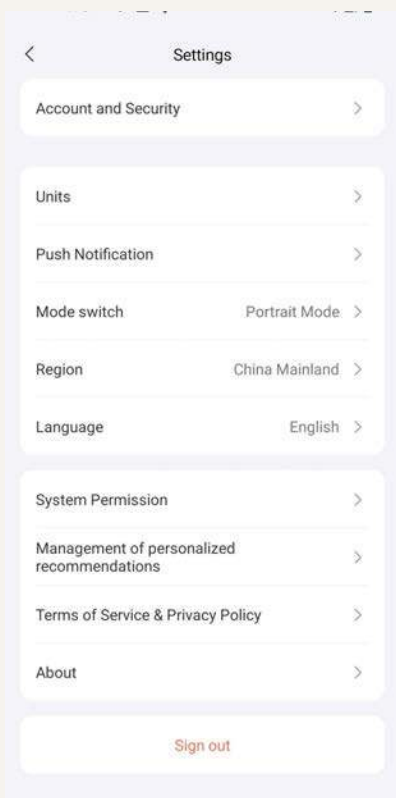
Third-Party
Authorised



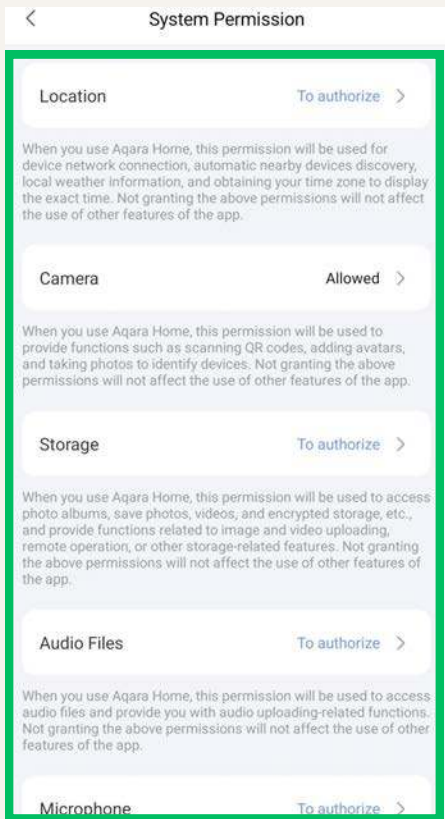
AQARA ROLLER SHADE DRIVER

Aqara Home Mobile App Privacy Settings

Profile - Settings

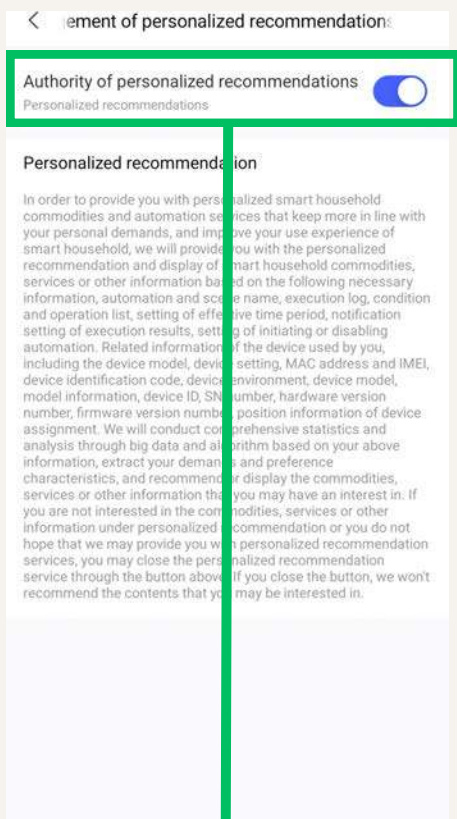


Settings - System Permissions



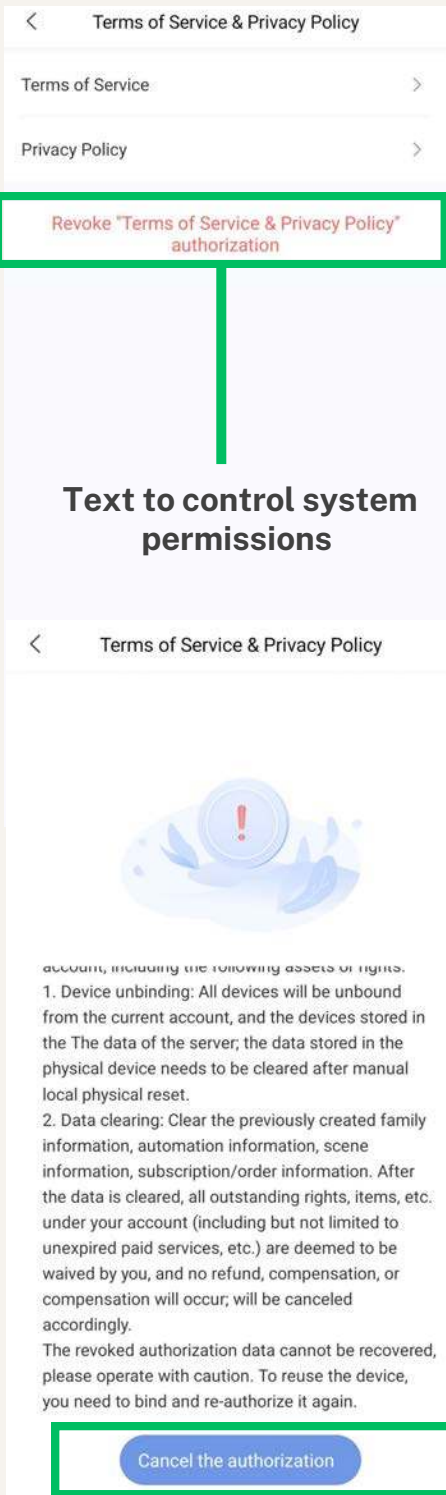
Text to control system permissions

Settings - Personalised recommendation



Toggles to control Ads

Settings - Terms of Service



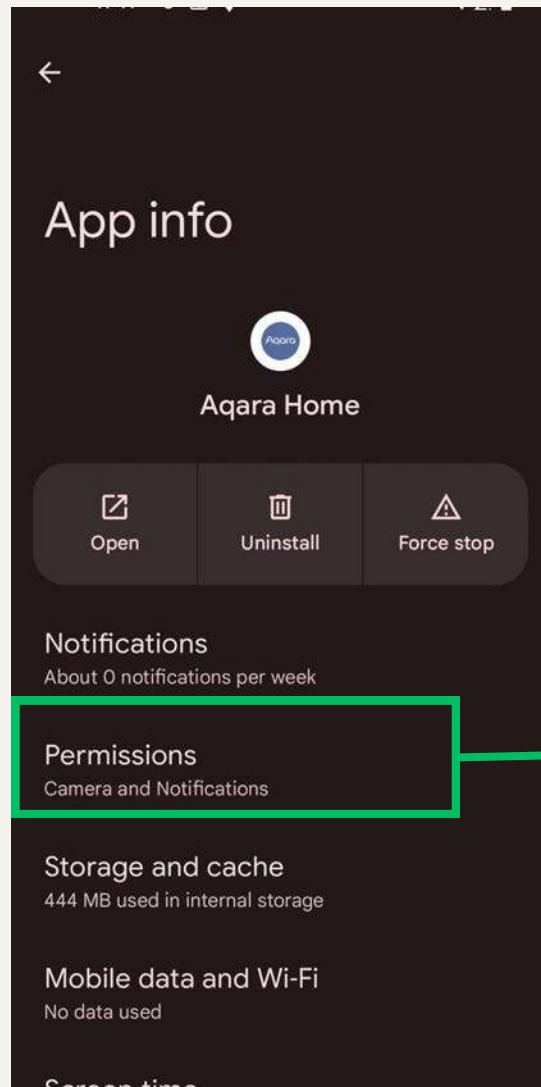
Text to control system permissions

Action Button confirmation

- Direct privacy settings configurations (Sharing and Usage)
- Configuration options are available to control Ads.
- Privacy provides options and displays information .

AQARA ROLLER SHADE DRIVER

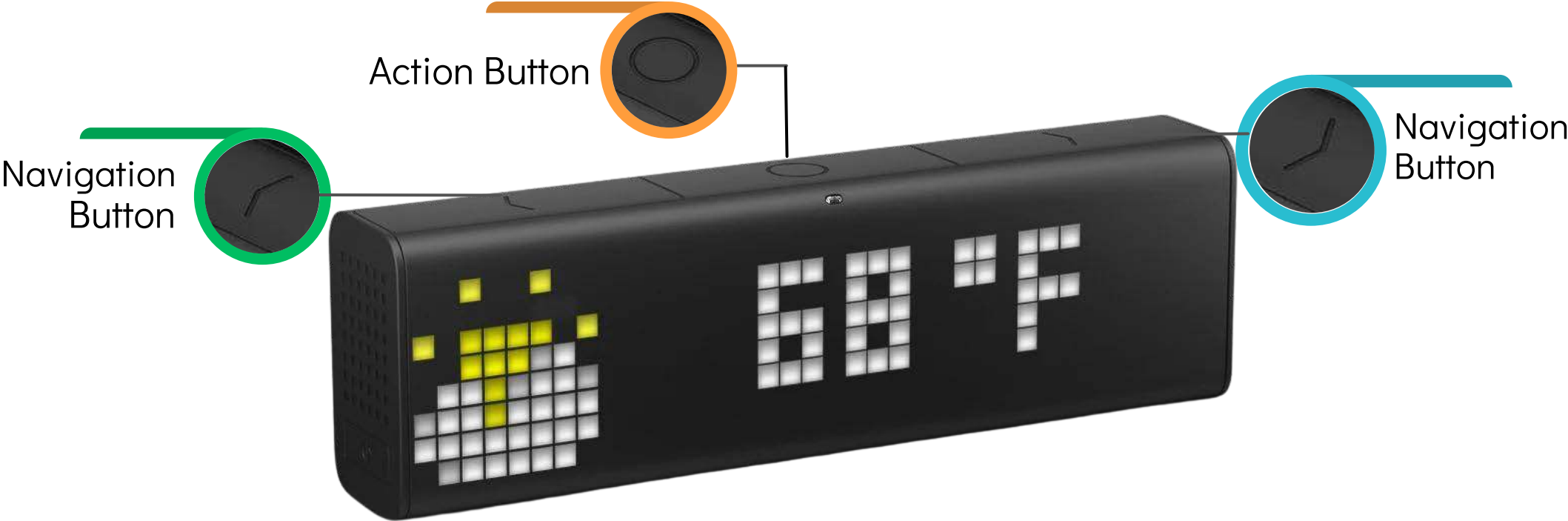
Aqara Home Mobile App Permissions



Aqara Home mobile app: The Aqara app provides smart home products such as sensors, switches, and hubs, compatible with major smart home ecosystems.

Main app permissions are **Camera** and **Notifications**.

LaMetric Time Smart Clock



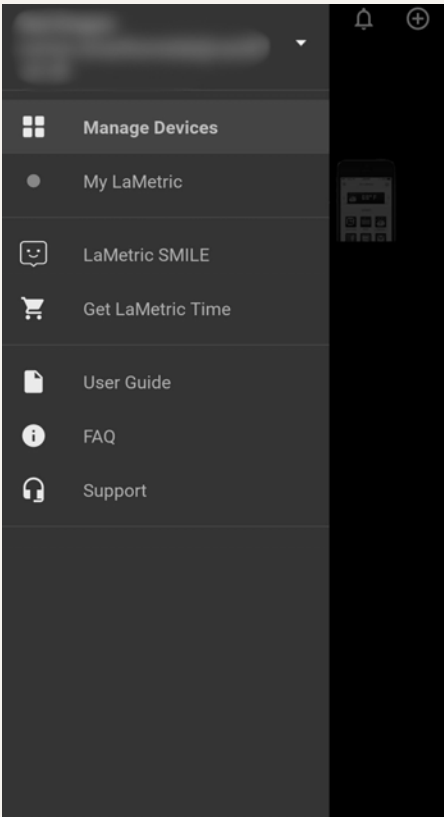
LAMETRIC TIME SMART CLOCK

Lametric Time Mobile App Privacy Settings

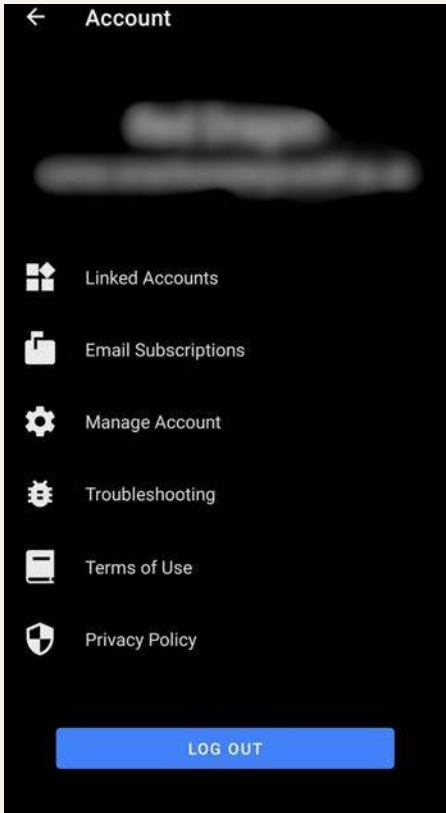
Home Screen



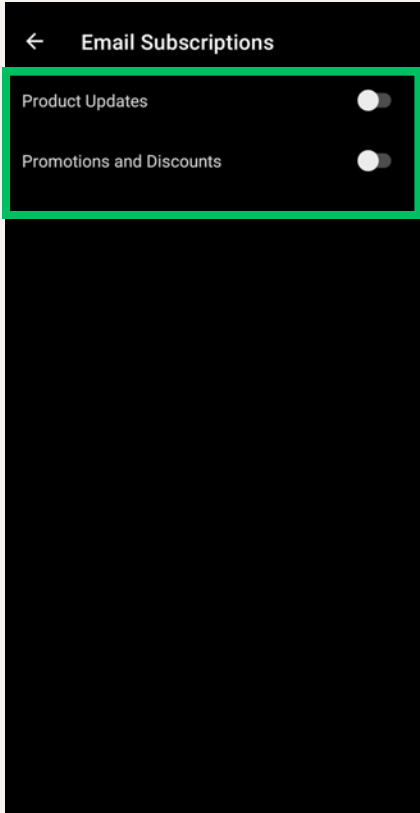
Menu






Account



Email Subscriptions

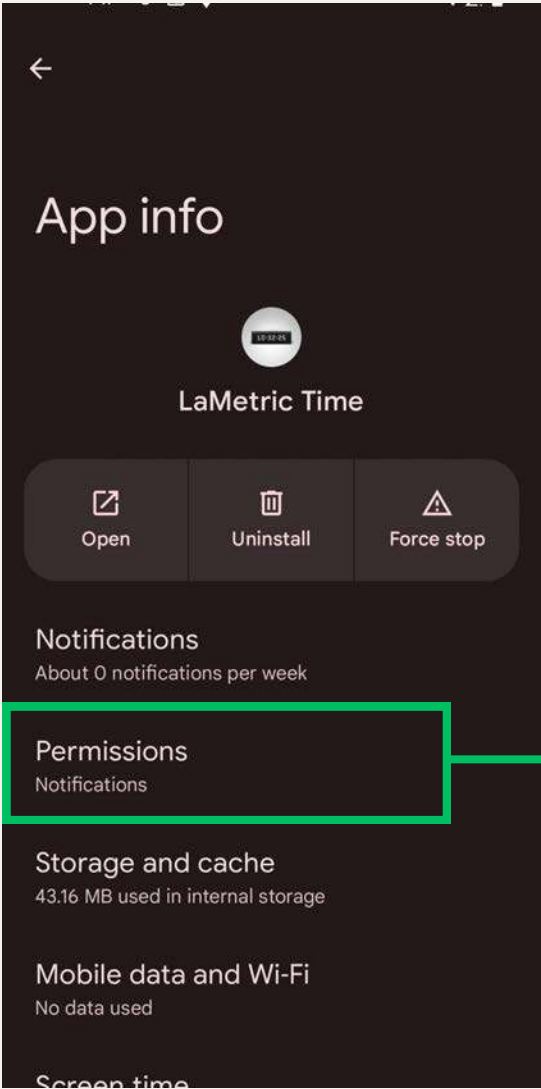


Toggles to control Ads

-  No direct privacy settings configurations
-  Some confirmation options are available to control Ads.
-  Privacy only displays information.

LAMETRIC TIME SMART CLOCK

Lametric Time Mobile App Permissions



Lametric Time mobile app: Lametric app is a smart clock app that displays customizable information, such as notifications, weather, and calendar events, and integrates with various smart home systems.

Main app
permissions
are
Notifications.

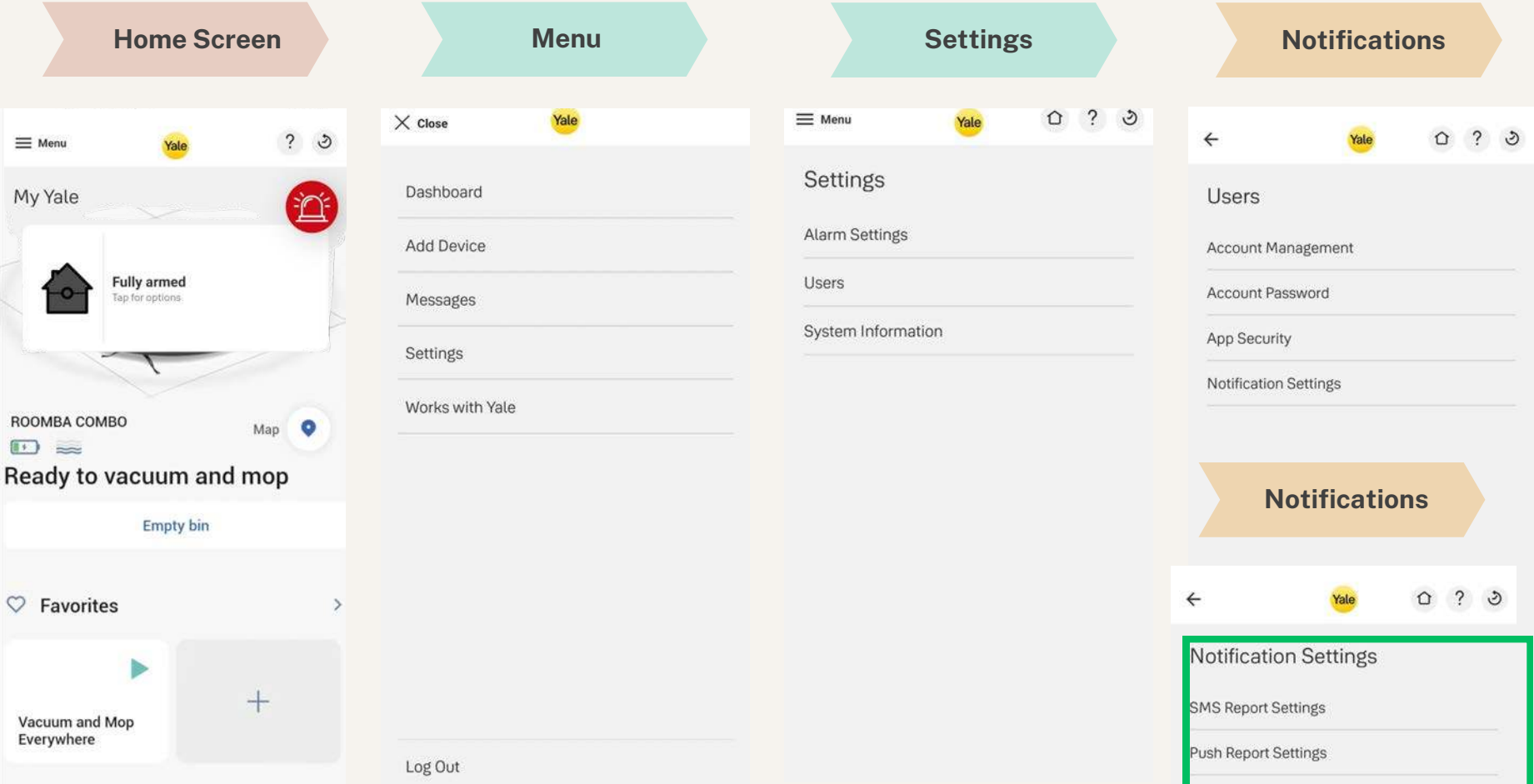
Yale Butoon

Multi-use
Button



YALE BUTOON

Yale Mobile App Privacy Settings



- No direct privacy settings configurations.
- Some confirmation options are available to control notifications.

Permissions Confirmations

Geo-notifications

In order for geofencing to work you must enable location services at all times in your phones device settings.

Email Report Settings

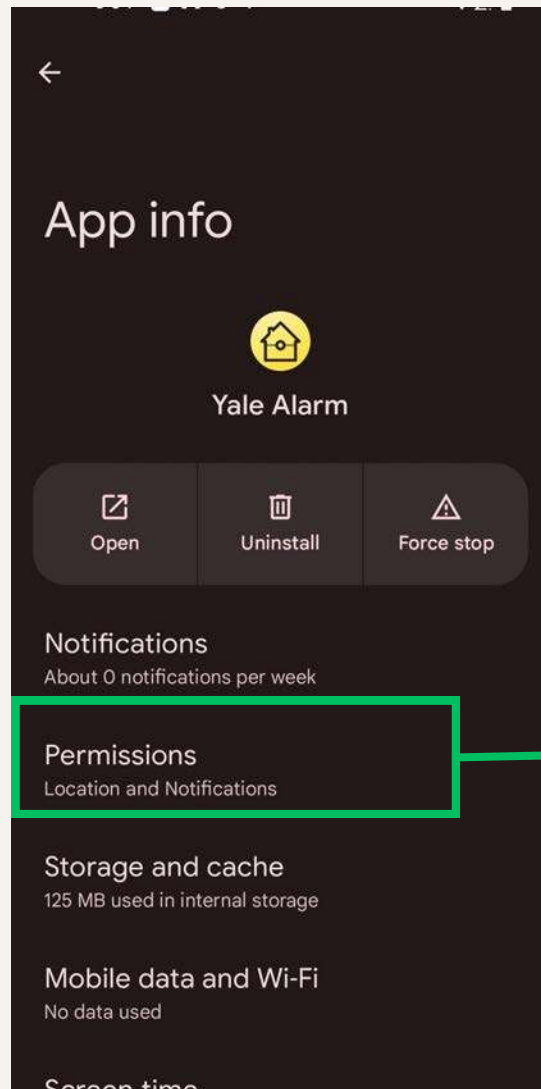
Geo-notifications

The Yale Smart Living Alarm app uses location data to enable it to send arming notifications when you leave home and disarming notifications when you arrive back, even when the app is closed or not in use.

OK

YALE BUTOON

Yale Mobile App Permissions



Yale mobile app: Yale Security is a company known for its range of smart home security products, including alarm systems, smart locks, and surveillance cameras.

Main app permissions are **Location** and **Notifications**

Google Home Smart Speaker

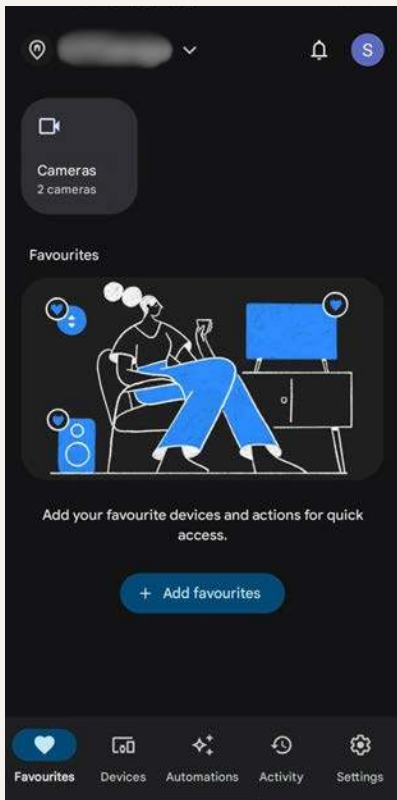
Microphone Control
Button



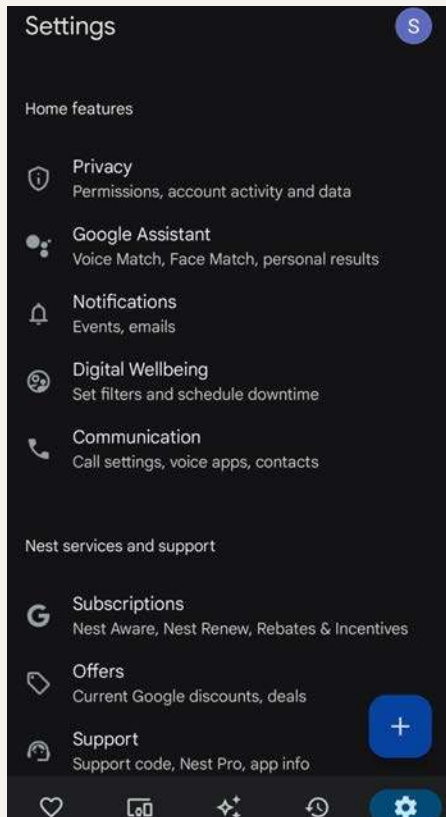
GOOGLE HOME SMART SPEAKER

Home Mobile App Privacy Settings

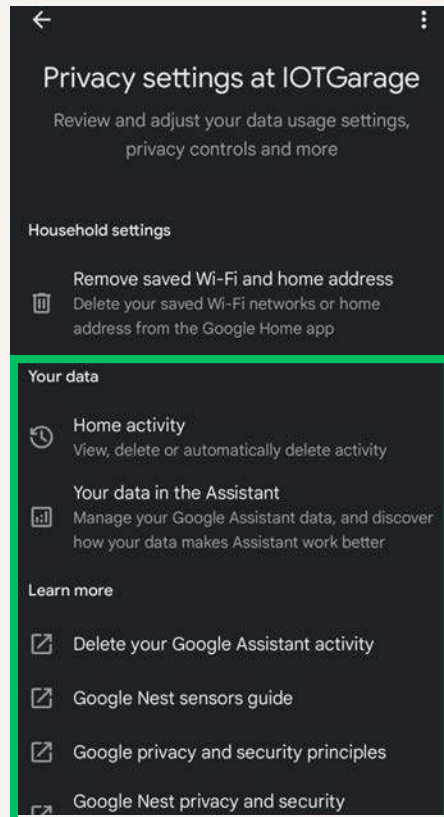
Home Screen



Setting (Scroll down)



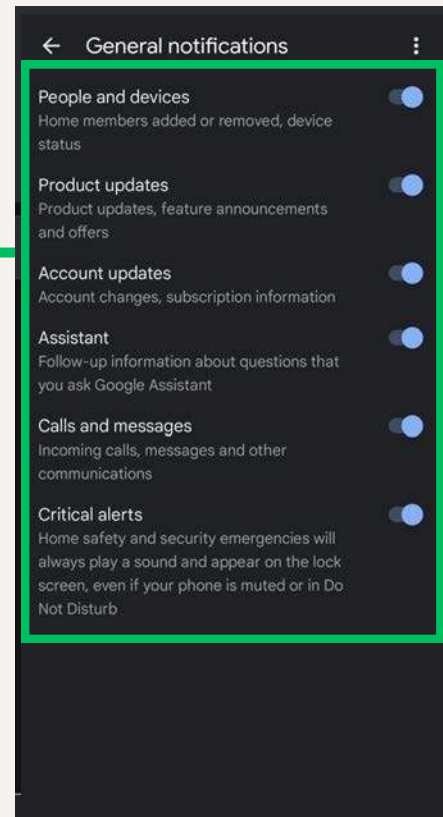
Privacy



Toggle to
control usage
and Ads.

Control options
through the
web.

Settings - Notifications



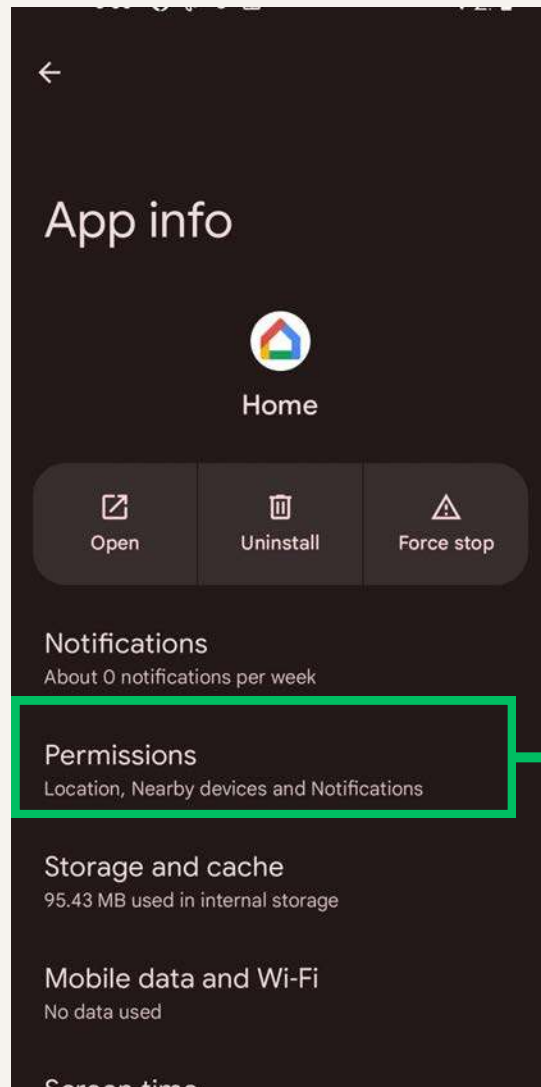
Privacy settings configurations (Usage).

Configuration options are available to control Ads.

Privacy provides optins and displays information on the web.

GOOGLE HOME SMART SPEAKER

Home Mobile App Permissions



Main app
permissions are
Location and
Notifications.



Home mobile app: The Google Home app is designed to help users manage, control, and integrate Google smart home devices and compatible third-party products. The app acts as a central hub for managing Google Nest devices and other compatible smart home products.

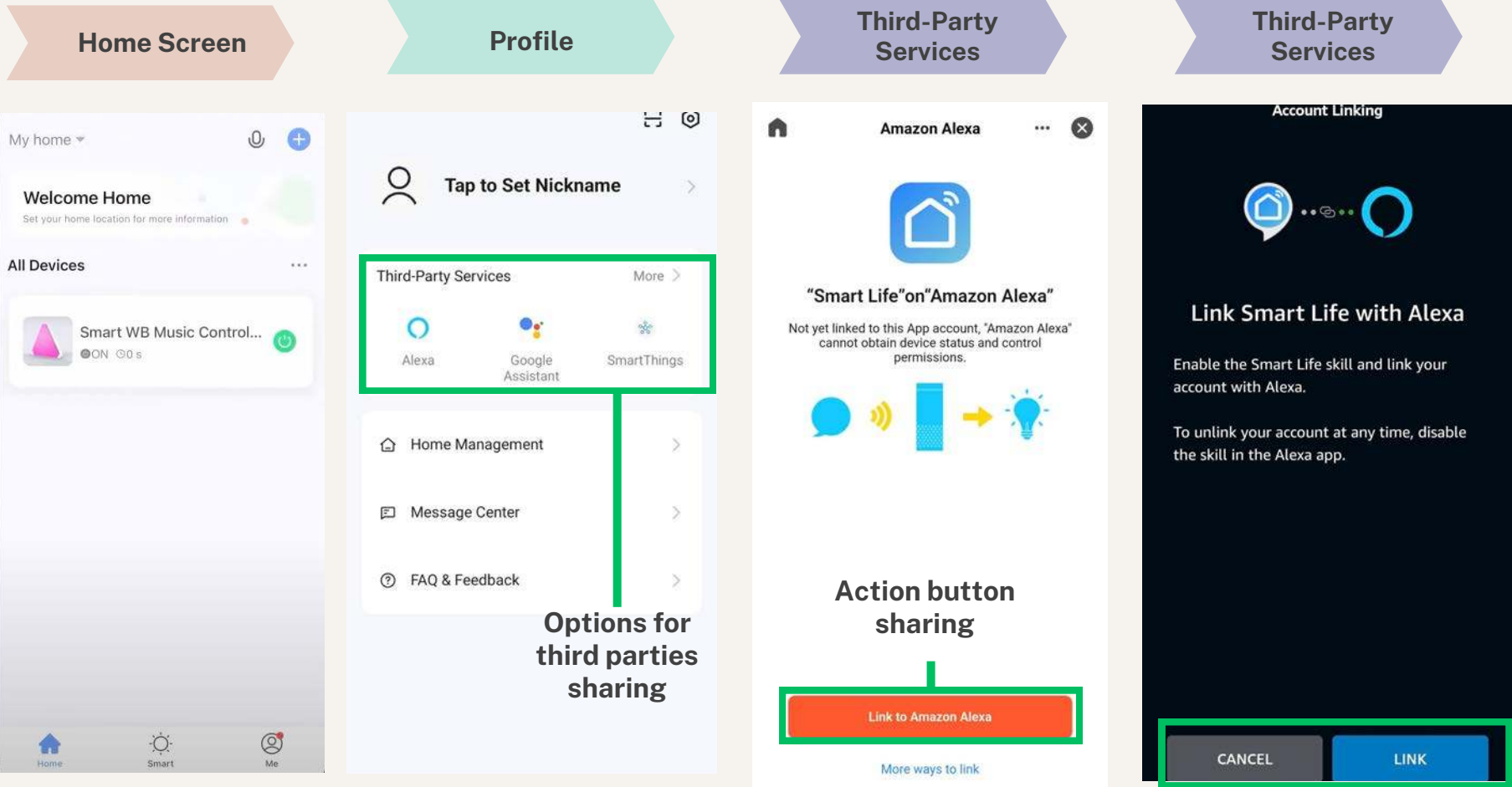
GHome Bedside Lamp

Colour Mode
Switch

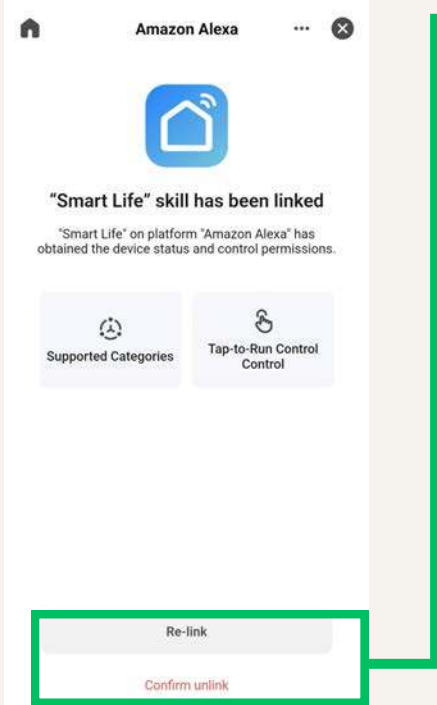


GHOME BEDSIDE LAMP

Smart Life Mobile App Privacy Settings

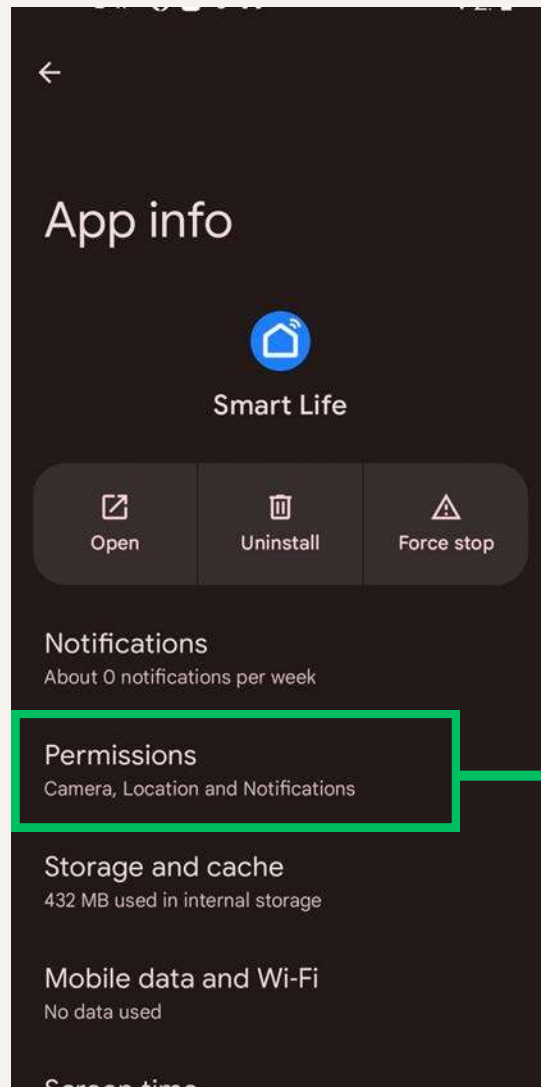


● Privacy settings configurations (Sharing).



GHOME BEDSIDE LAMP

Smart Life Mobile App Permissions



Smart Life mobile app: A versatile smart home app that supports a wide range of devices, enabling control and automation of lighting, security, and more.

Main app permissions are **Camera, Location, and Notifications**

BenQ Projector



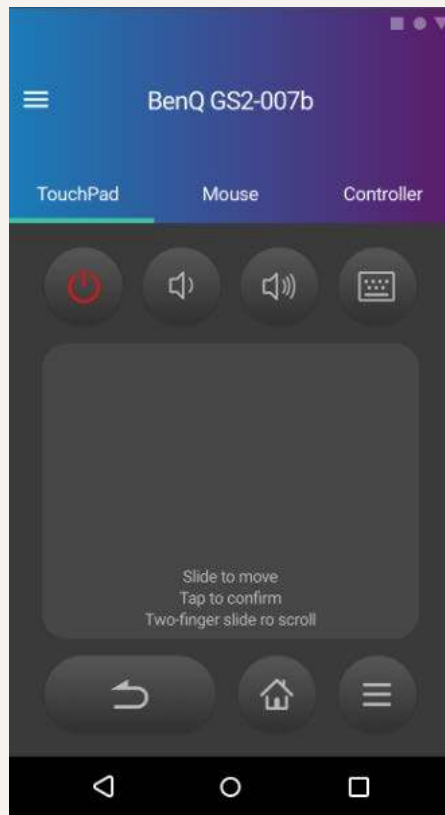
BENQ PROJECTOR

BenQ Smart Control Mobile App Privacy Settings

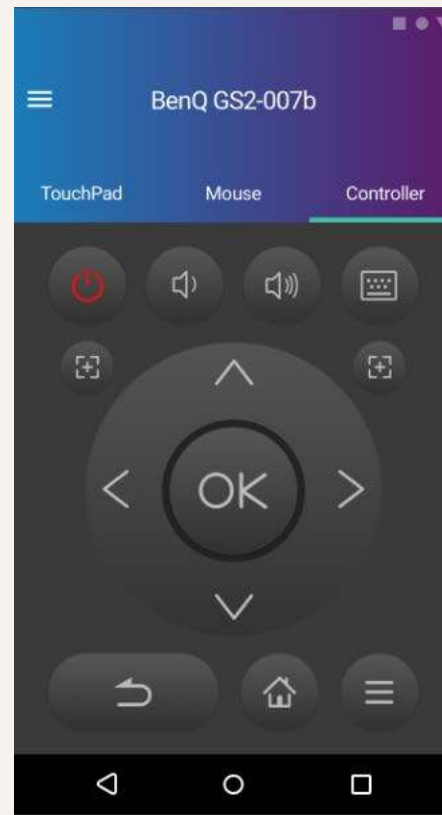
Home Screen



Projector



Options



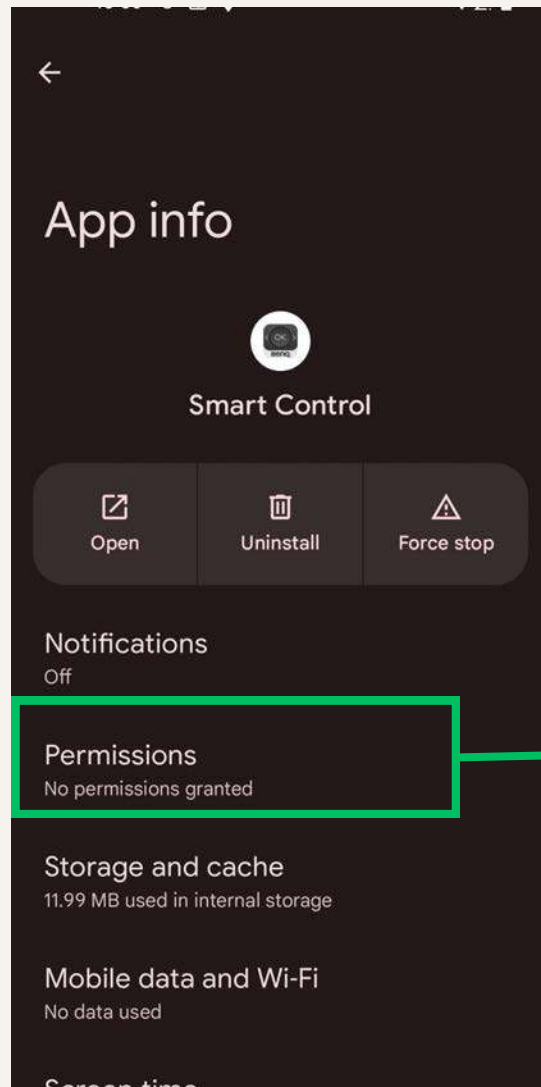
Help



 No direct privacy settings configurations

BENQ PROJECTOR

BenQ Smart Control Mobile App Permissions

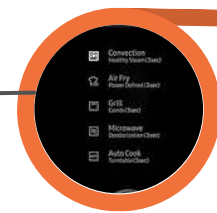


BenQ Smart Control mobile app: The BenQ app is designed to enhance the functionality and user experience of BenQ projectors. The app allows users to control their BenQ projectors using their smartphones or tablets, functioning as a remote control.

The app does not require any permissions.

SAMSUNG

Smart Microwave

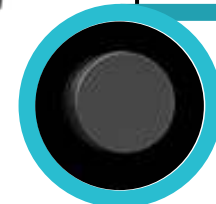


Cooking Control Buttons

Power Control Buttons



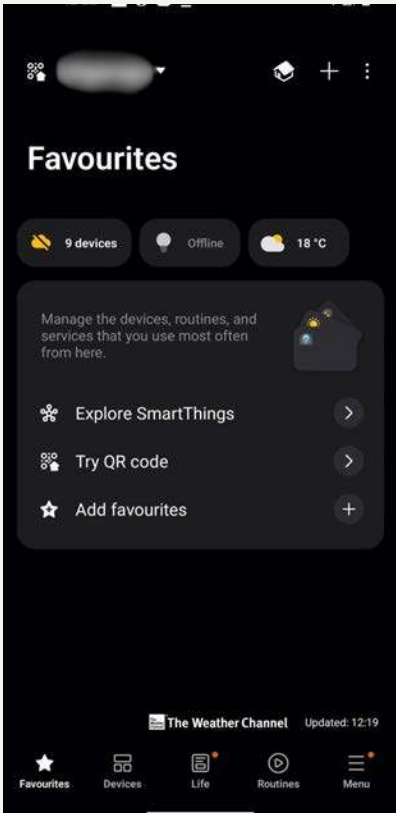
Multi Function Knob and Push Button



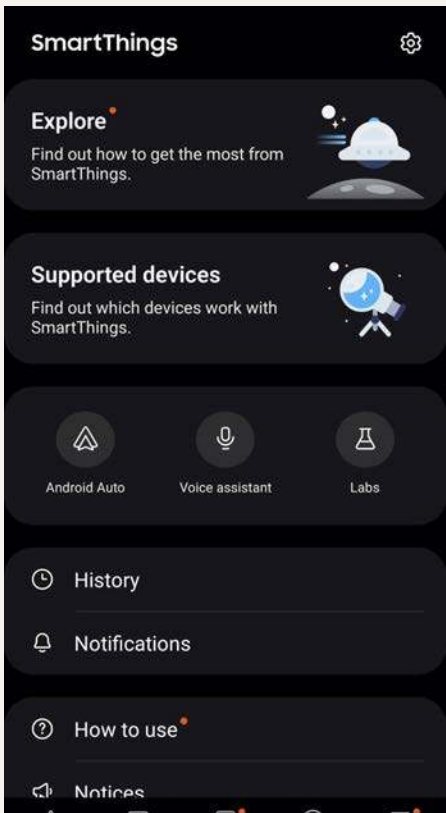
SAMSUNG SMART MICROWAVE

Smart Things Mobile App Privacy Settings

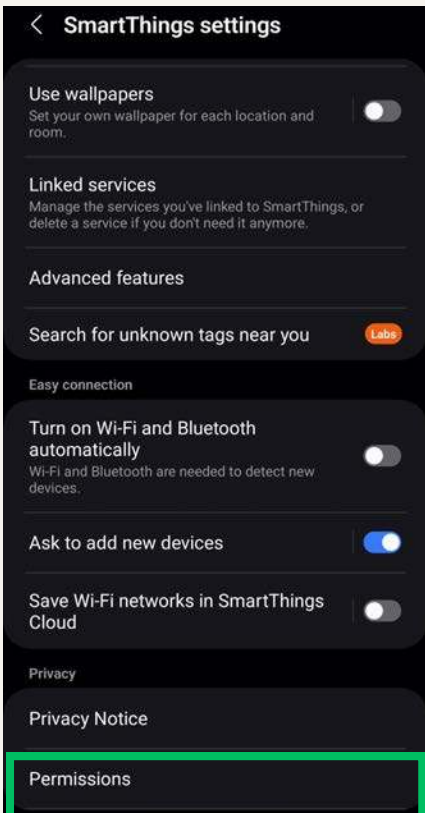
Home Screen



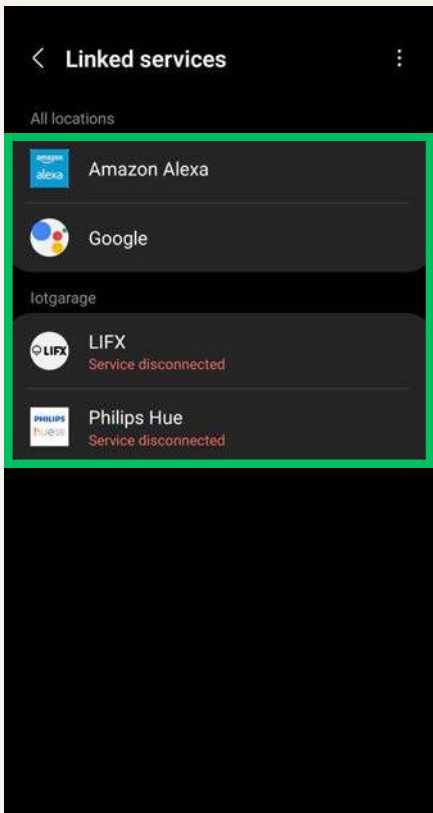
Menu



Settings (Scroll down)

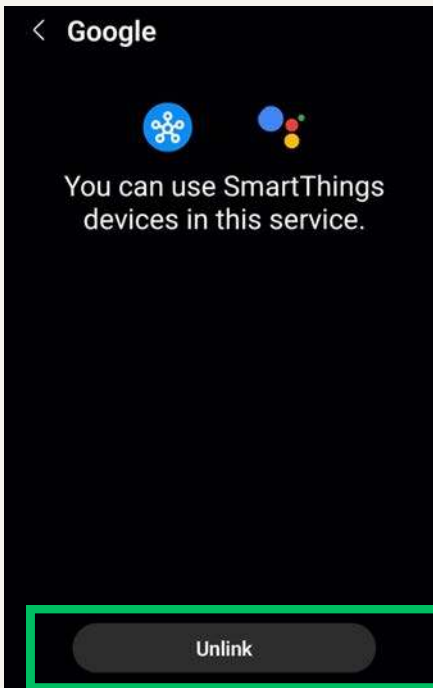
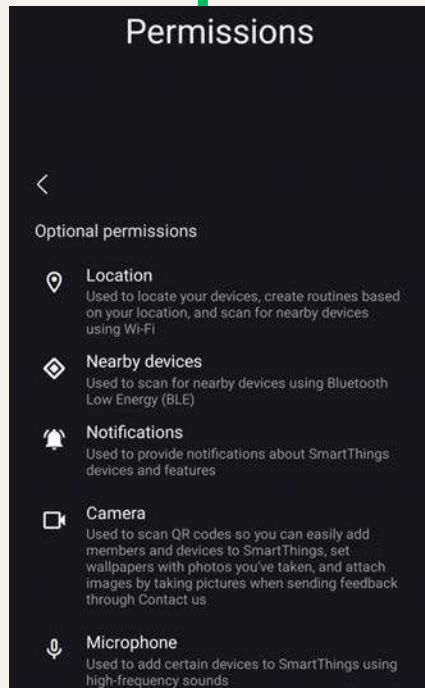


Third-Party Services



Options for
third parties
sharing

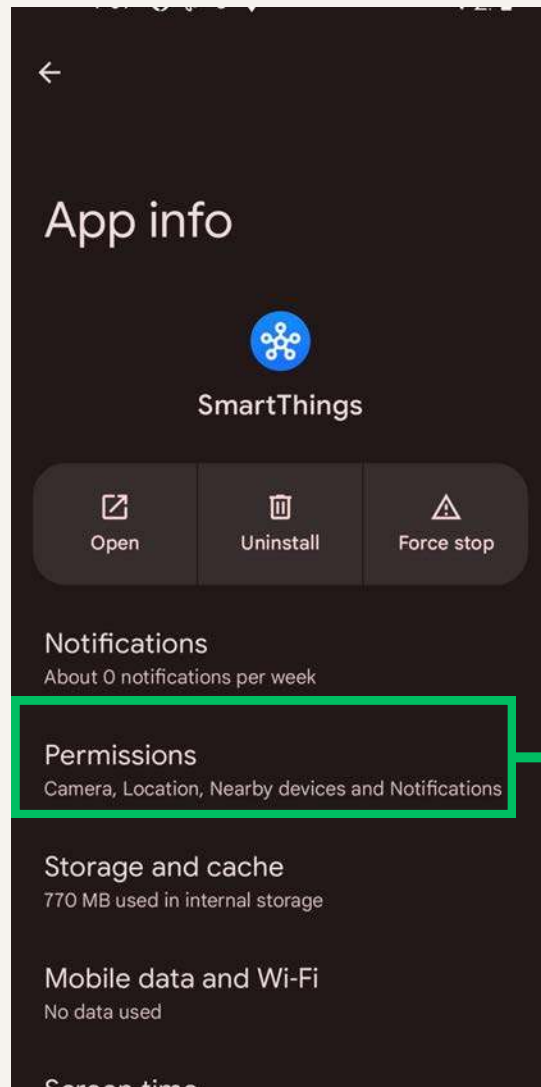
- Privacy settings configurations (Sharing).
- Privacy and permissions only displays information.



Action button
sharing opt-
out option

SAMSUNG SMART MICROWAVE

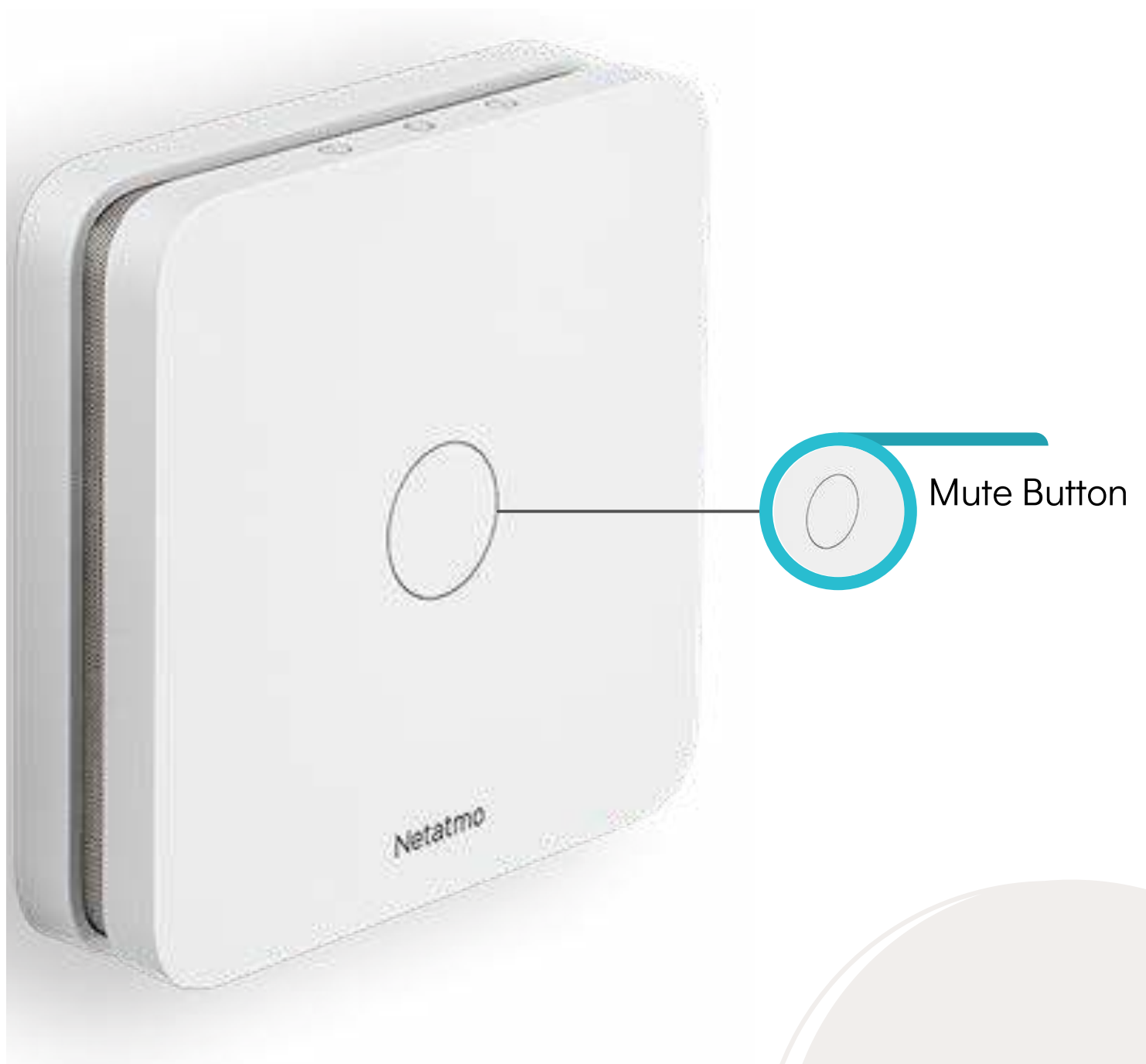
Smart Things Mobile App Permissions



Smart Thing mobile app: SmartThings is a smart home platform developed by Samsung. It allows users to connect and control various smart devices and appliances from different manufacturers through a single app. SmartThings supports a wide range of devices and offers automation capabilities.

Main app permissions are Camera, Location and Notifications

Netatmo Carbon Monoxide Alarm



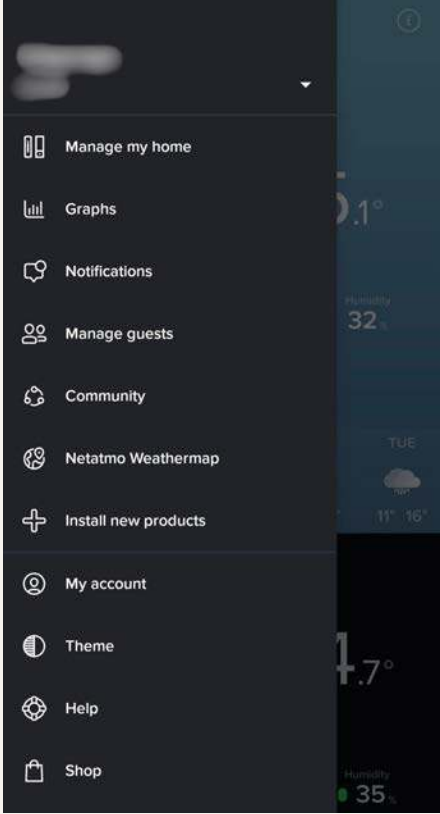
NETATMO CARBON MONOXIDE ALARM

Netatmo Mobile App Privacy Settings

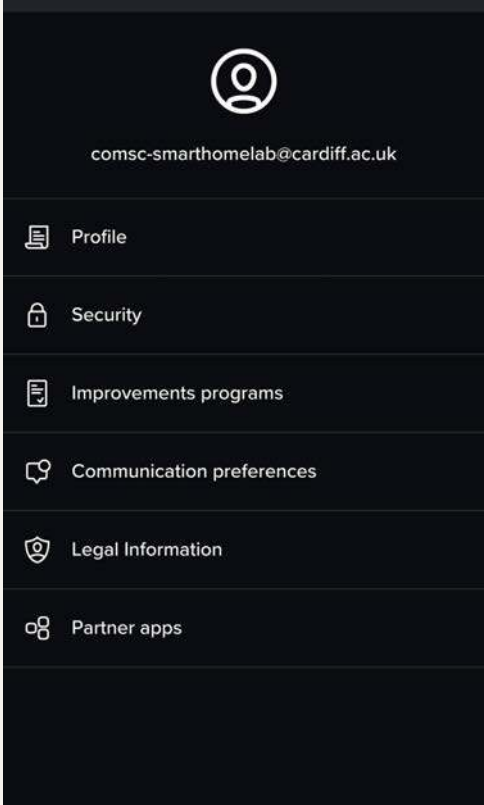
Home Screen



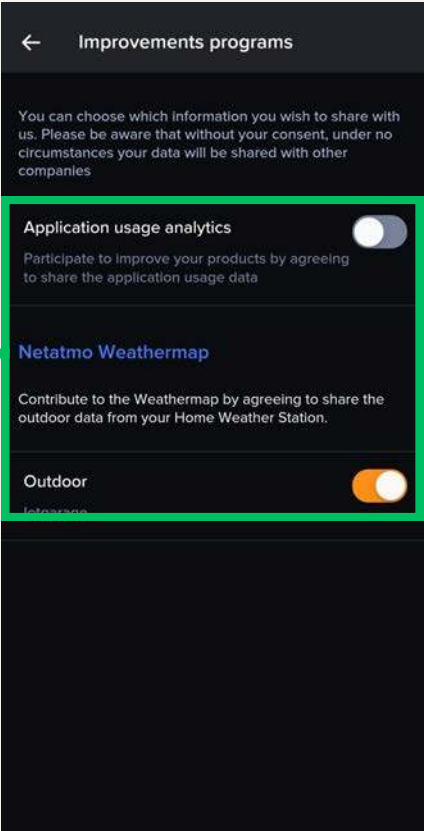
Menu



Improvement Programs

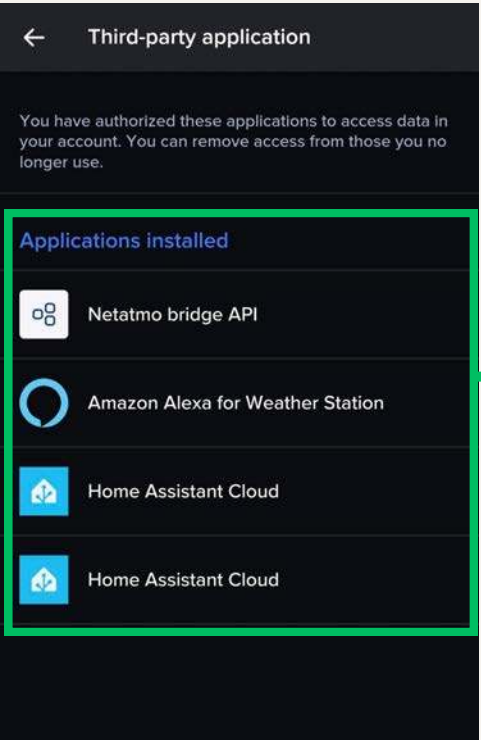
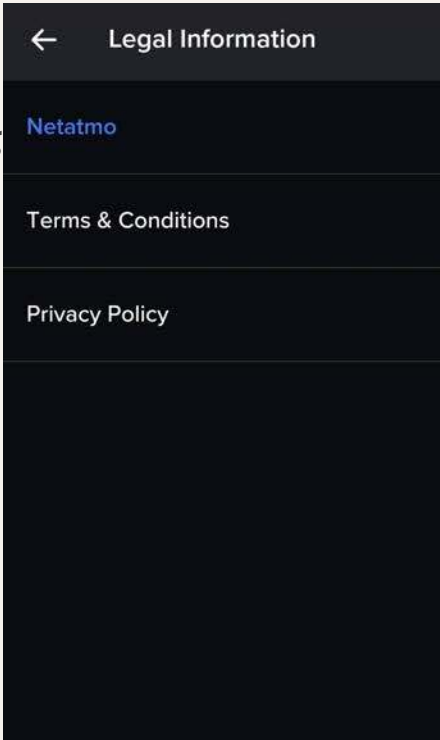


Improvement Programs

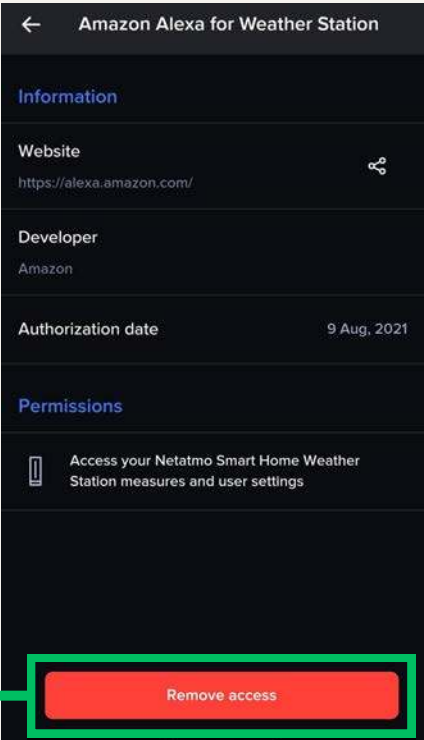


Toggles to control usage

Legal



Options for third parties sharing



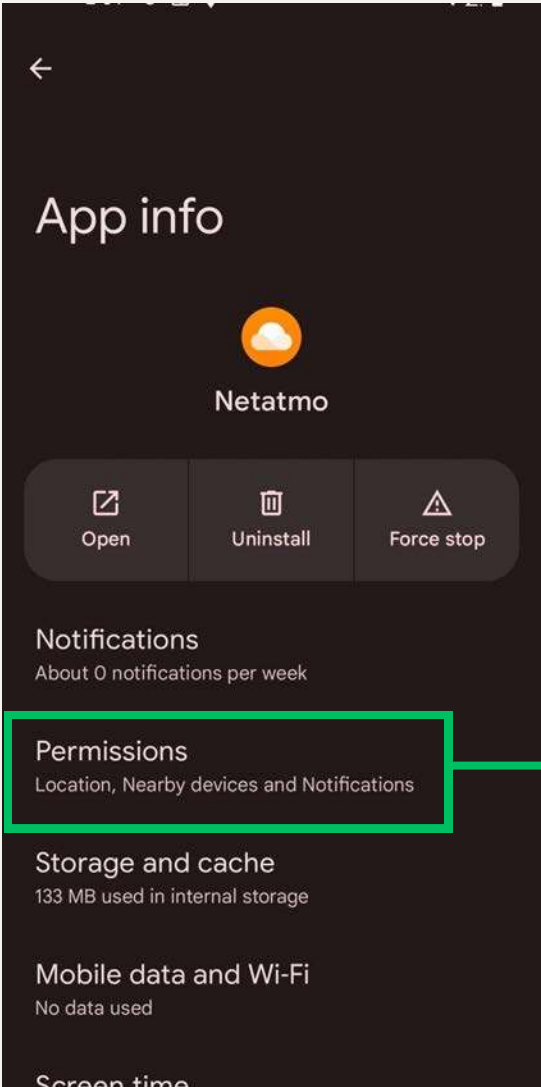
Action button sharing opt-out option

Privacy settings configurations (Sharing and Usage).

Legal only displays information .

NETATMO CARBON MONOXIDE ALARM

Netamo Time Mobile App Permissions



Netamo mobile app: Netamo app is a smart app that provides smart home security and climate products, including weather stations, cameras, and smart thermostats.

Main app permissions are **Location** and **Notifications**.