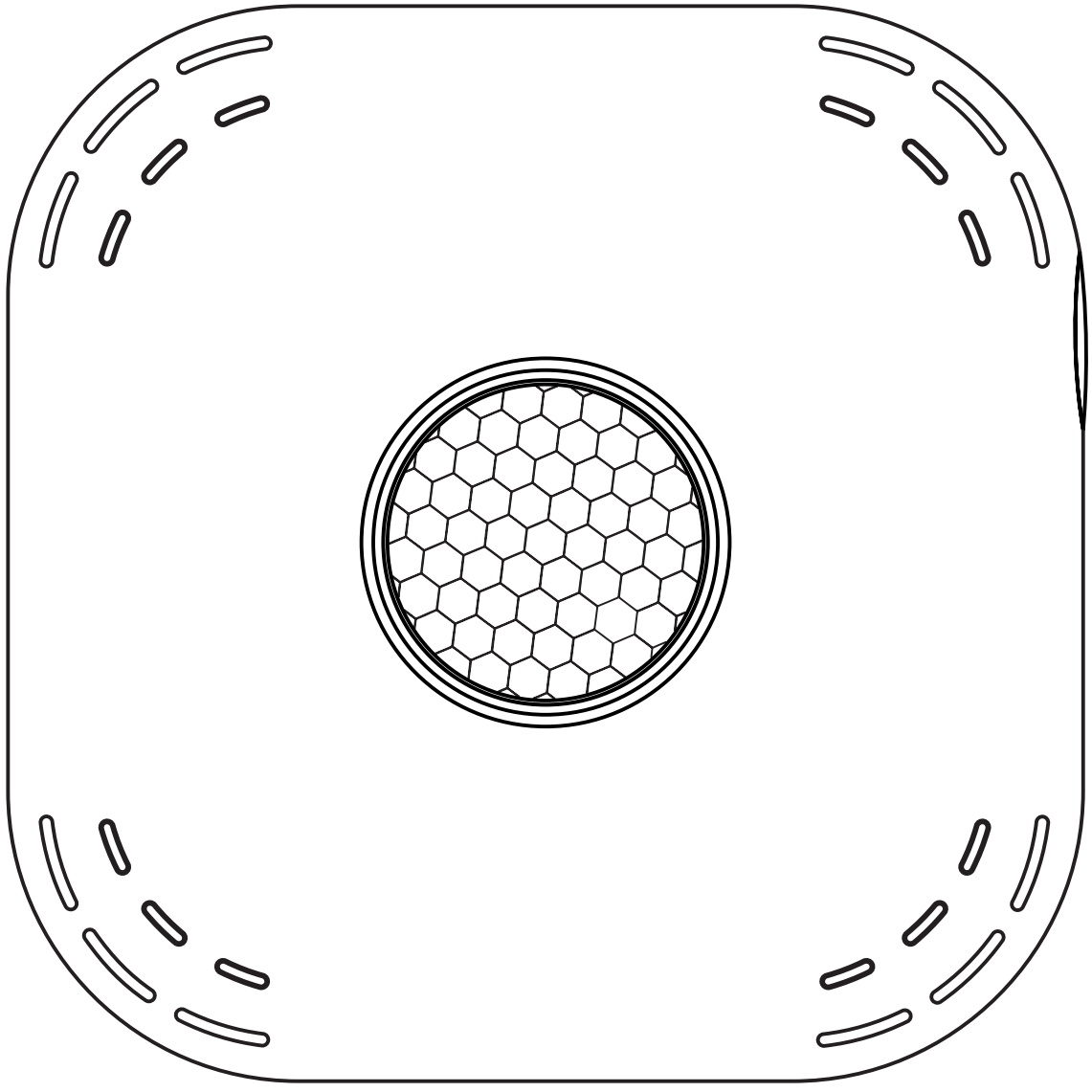


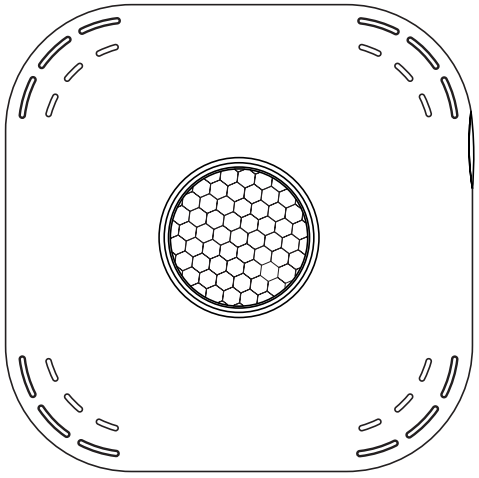
foobot SAT

USER MANUAL

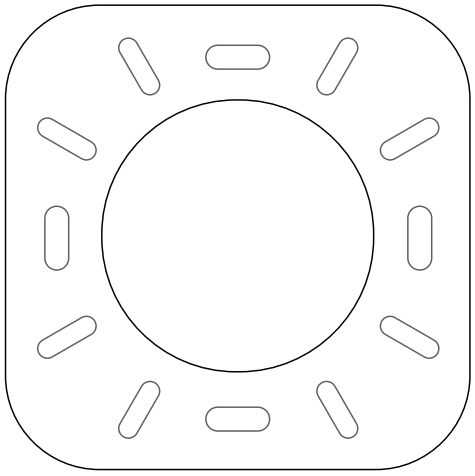
Welcome

FoobotSAT monitors fine particulates, volatile organic compounds, carbon dioxide, temperature, relative humidity and features an infrared motion detection sensor.
This user manual will provide basic guidance for set up, first use, and troubleshooting. Further information, tutorials, and troubleshooting guides can be found on https://foobot.io or by contacting your reseller.

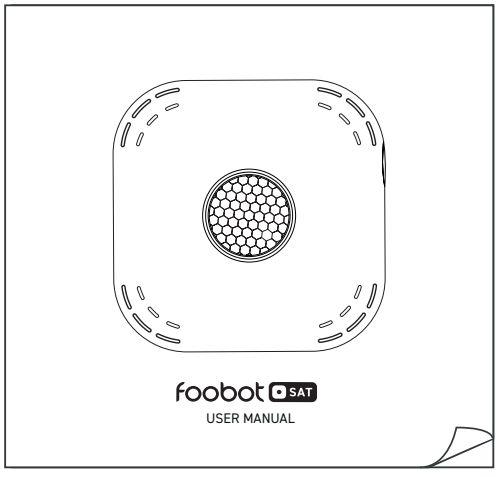
Items included



FoobotSAT monitor

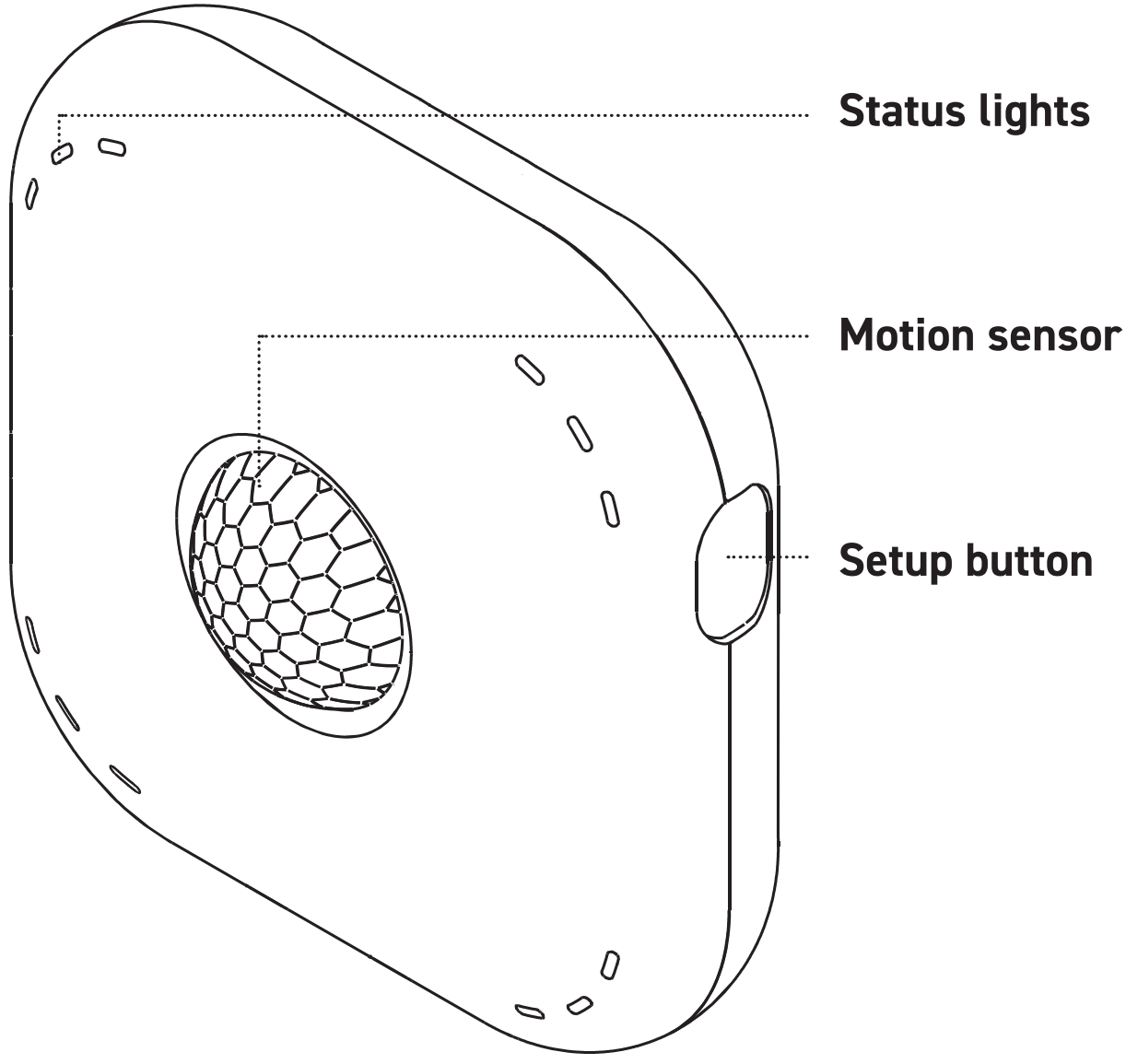


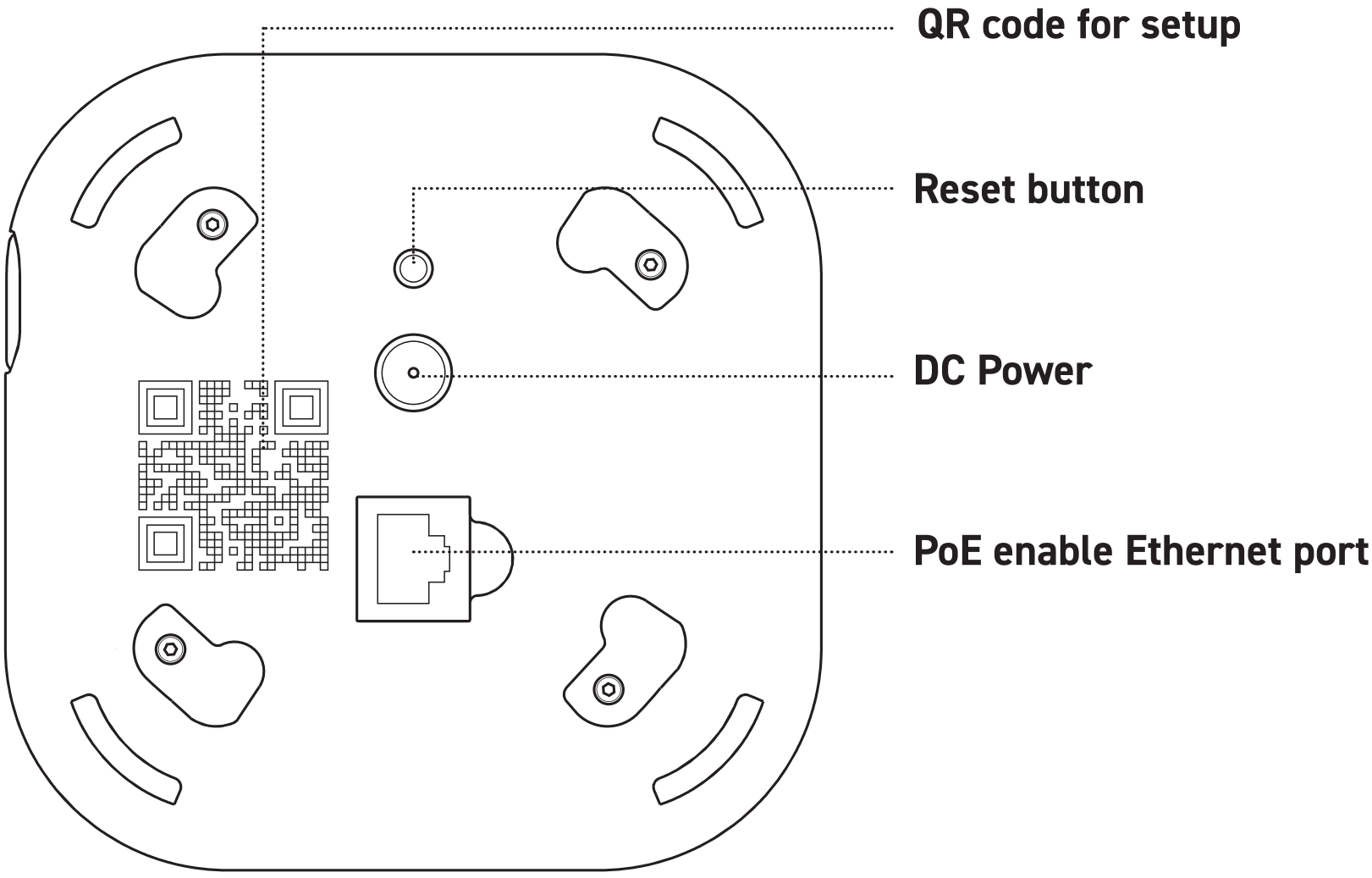
Mounting plate



User Manual

Getting to know your FoobotSAT




QR code for setup
Reset button
DC Power
PoE enable Ethernet port

Installation Overview

1 Select the optimal device location.

2 Secure the mounting plate to the wall or ceiling.

3 Connect the DC cable to the device.

4 Attach FoobotSAT to its mounting plate by rotating it.

5 Get the App to set up the device and follow the instructions to have it connected to the Internet.

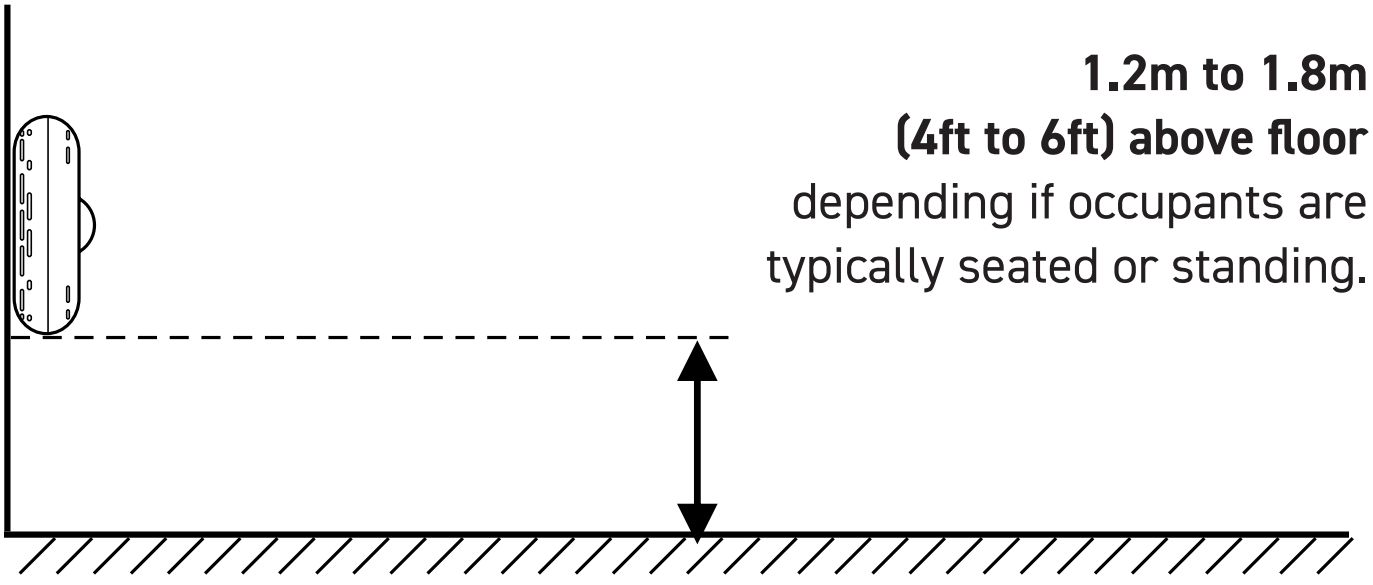
Each of these steps are detailled further detailed in the following pages.

The installation of FoobotSAT should be completed by a qualified technician, and all wiring used to install the device must be in accordance with your local jurisdiction's codes. Permanent connection to the fixed wiring of the building should be made in a suitable junction box.

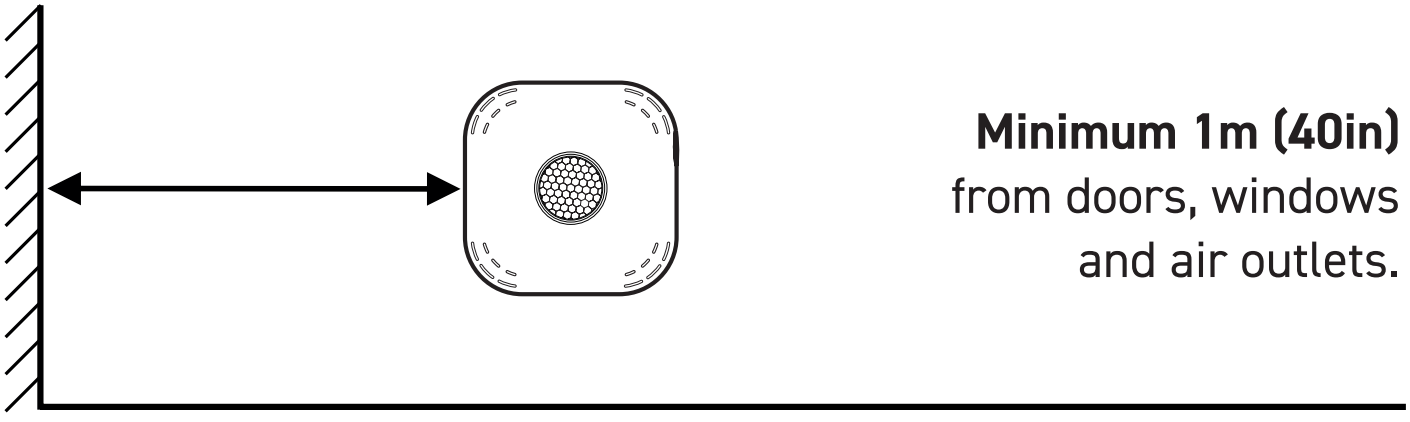
1 Optimal device location

FoobotSAT can either be attached to a wall or ceiling. A third option is to use it with a stand — see the accessories section. Any other placement will result in unexpected behavior and is to be avoided.

Wall mount

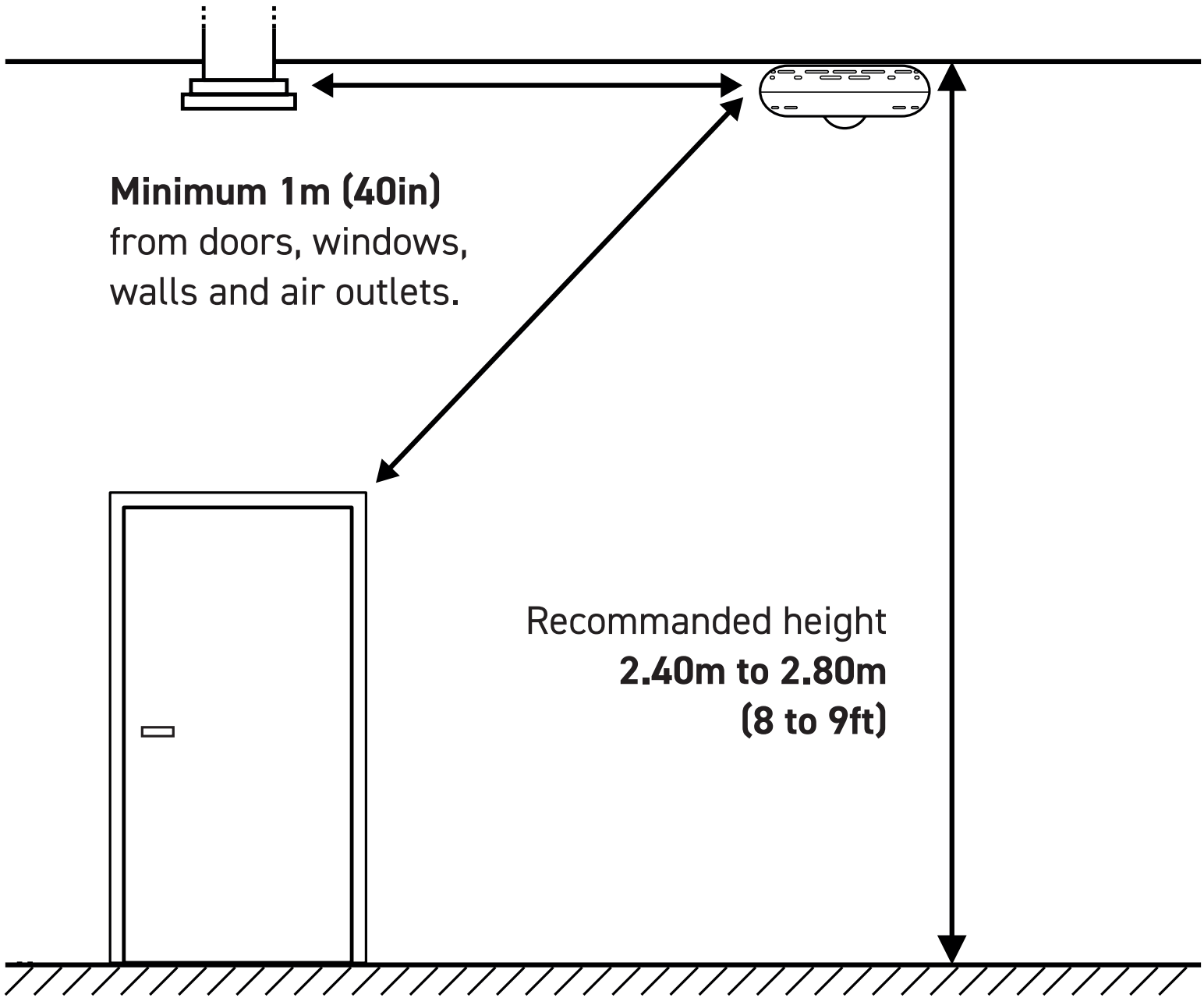


1.2m to 1.8m
(4ft to 6ft) above floor
depending if occupants are typically seated or standing.



Minimum 1m (40in)
from doors, windows and air outlets.

Ceiling mount



2 Securing the mounting plate

Items you will need

A A minimum of 4 screws from 4-48 to ¼-38 dimensions. (M3 to M5 dimensions). Head thickness of the screw should not exceed 3.3mm.

B Matching drywall plugs or anchors.

C Matching screwdriver.

D Drill bits matching your anchors or drywall plugs.

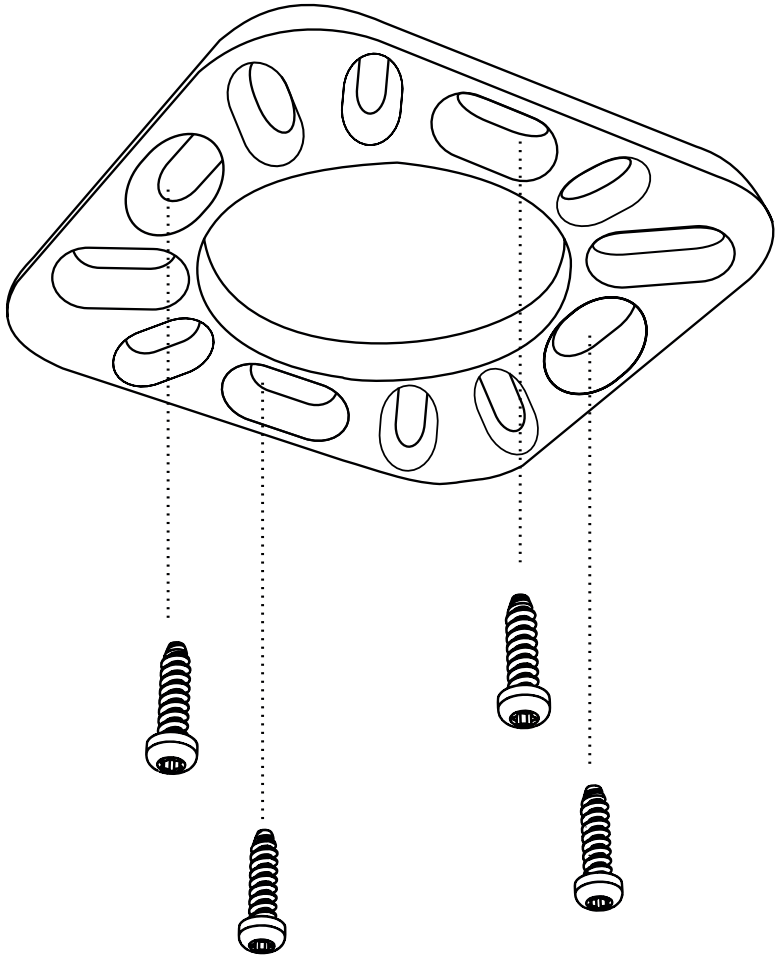
E Optional: Drill bits to let DC jack and Ethernet cable through.

Make sure you have the proper screws, anchors and the protection equipment required in your jurisdiction before getting started.

Drilling a path through for DC Jack & Ethernet cables

You can use the canvas on the next page to help drill in a ceiling plate for the cables to go throug:

- The bigger circle required for Ethernet is 0.9in (23mm) of diameter.
- The smaller one is 0.5in (13mm) diameter for the DC jack.



Secure the mounting plate

Use a minimum of 4 screws and associated drywall plug or anchor to secure the mounting plate to the wall or ceiling.

For the wall mounting option, use the glitter to secure the DC jack before screwing in the mounting plate.

2 Wire connections

Power options

FoobotSAT can be powered via a 12 Volt DC power supply

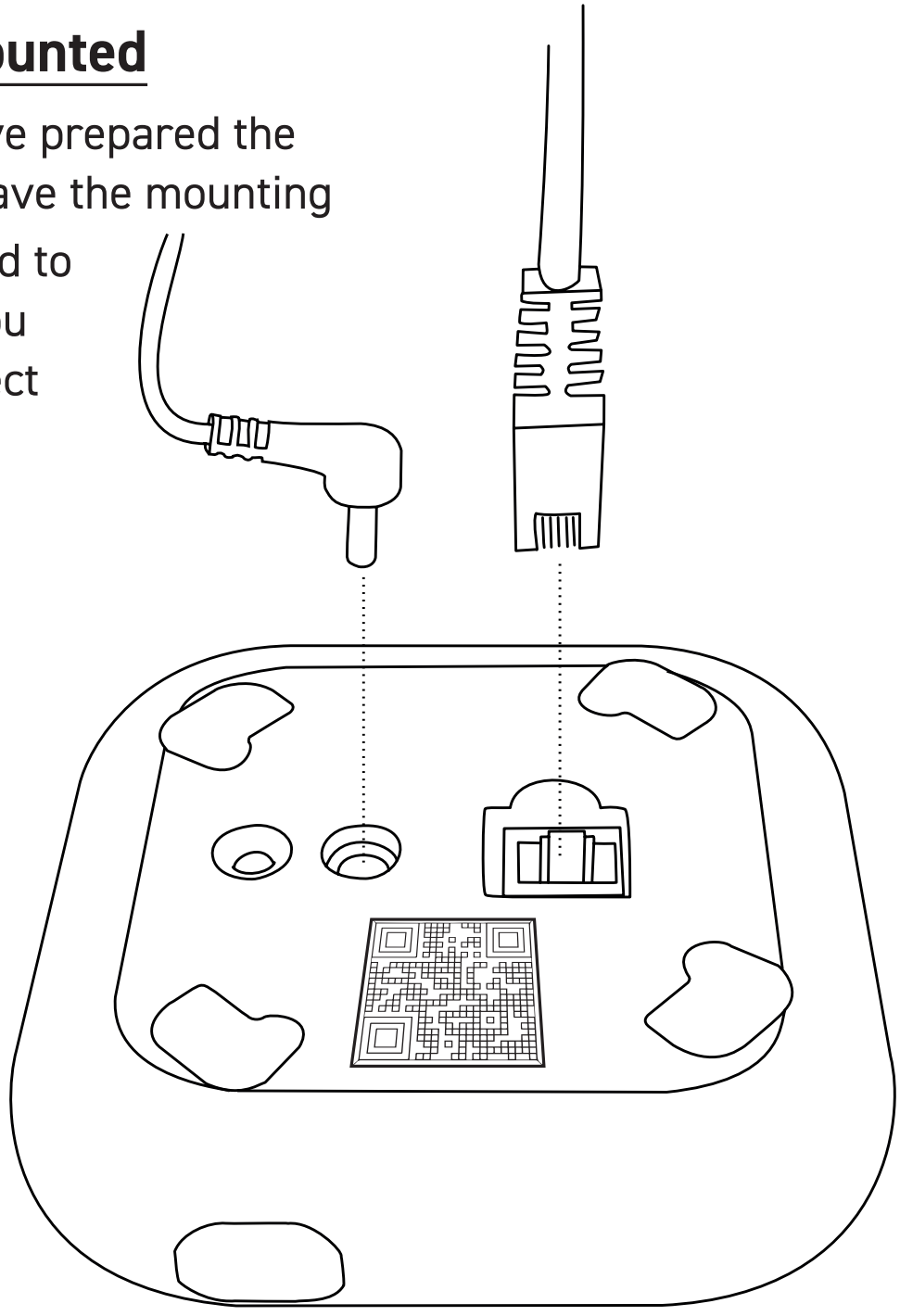
Internet connectivity options

FoobotSAT can be either connected via a 2.4GHz WiFi connection or using a standard Ethernet (RJ45) cable.

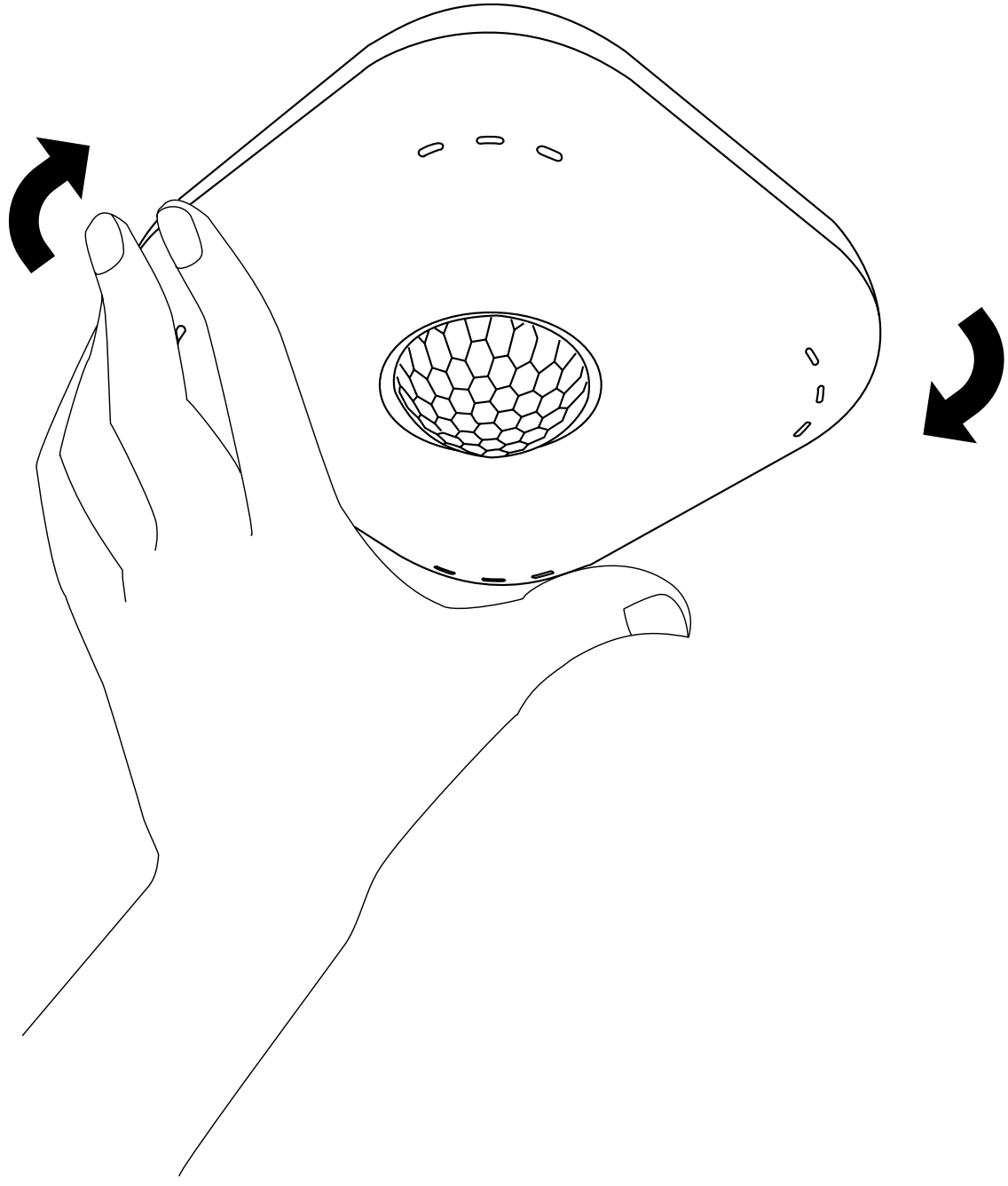
3 Attach the device to its mounting plate

Ceiling mounted

Once you have prepared the wiring and have the mounting plate attached to the ceiling you should connect the cable(s):

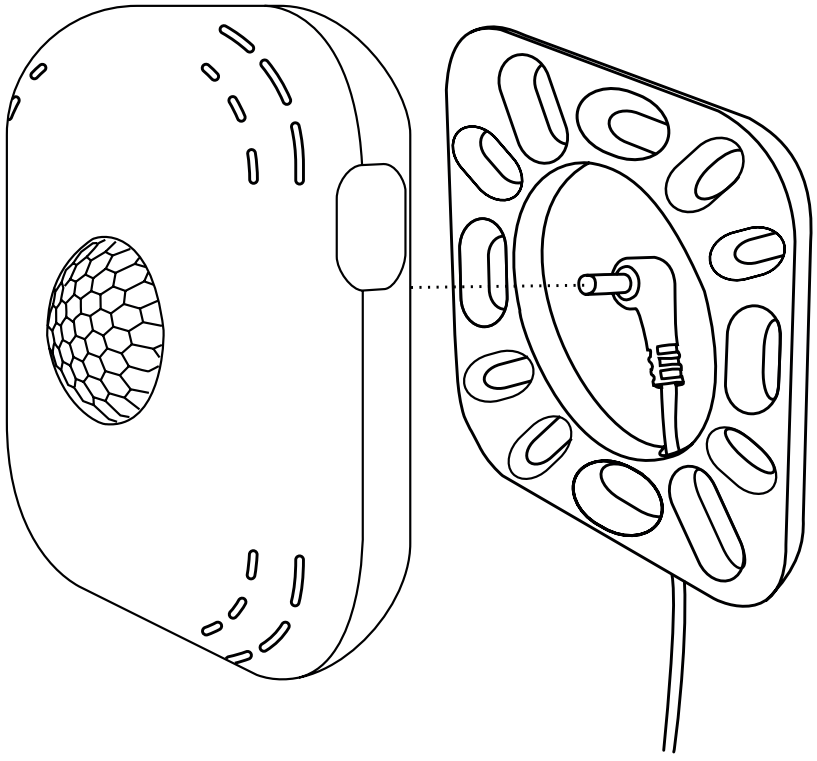


Then hook the FoobotSAT to the mounting plate and rotate it **clockwise**



Wall mounted

Connect the DC Jack to the device, then hook the FoobotSAT to its mounting plate and rotate it clockwise:



Gently pull the DC cable while approaching the device to the mounting plate.

Note that in this configuration, motion detection will not be accurate, and you have to make sure to locate the user button on the top right, so the monitoring sensors function properly.

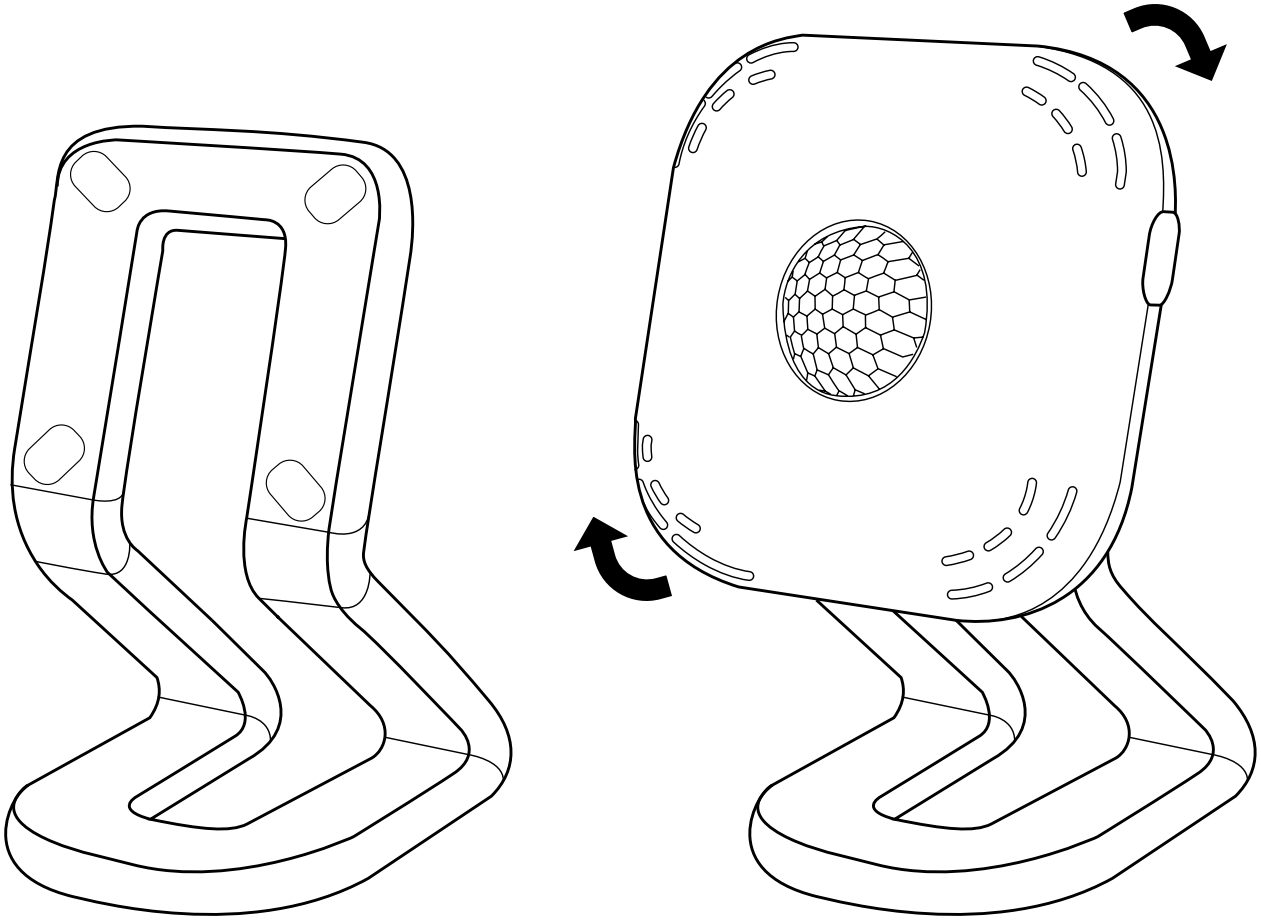
4 Get the App and set up the device

Visit http://getapp.foobot.io from your tablet or smartphone to download the mobile app. Alternatively, use the setup app or method supplied by your reseller.

Follow the instructions to get the monitor connected to the internet.

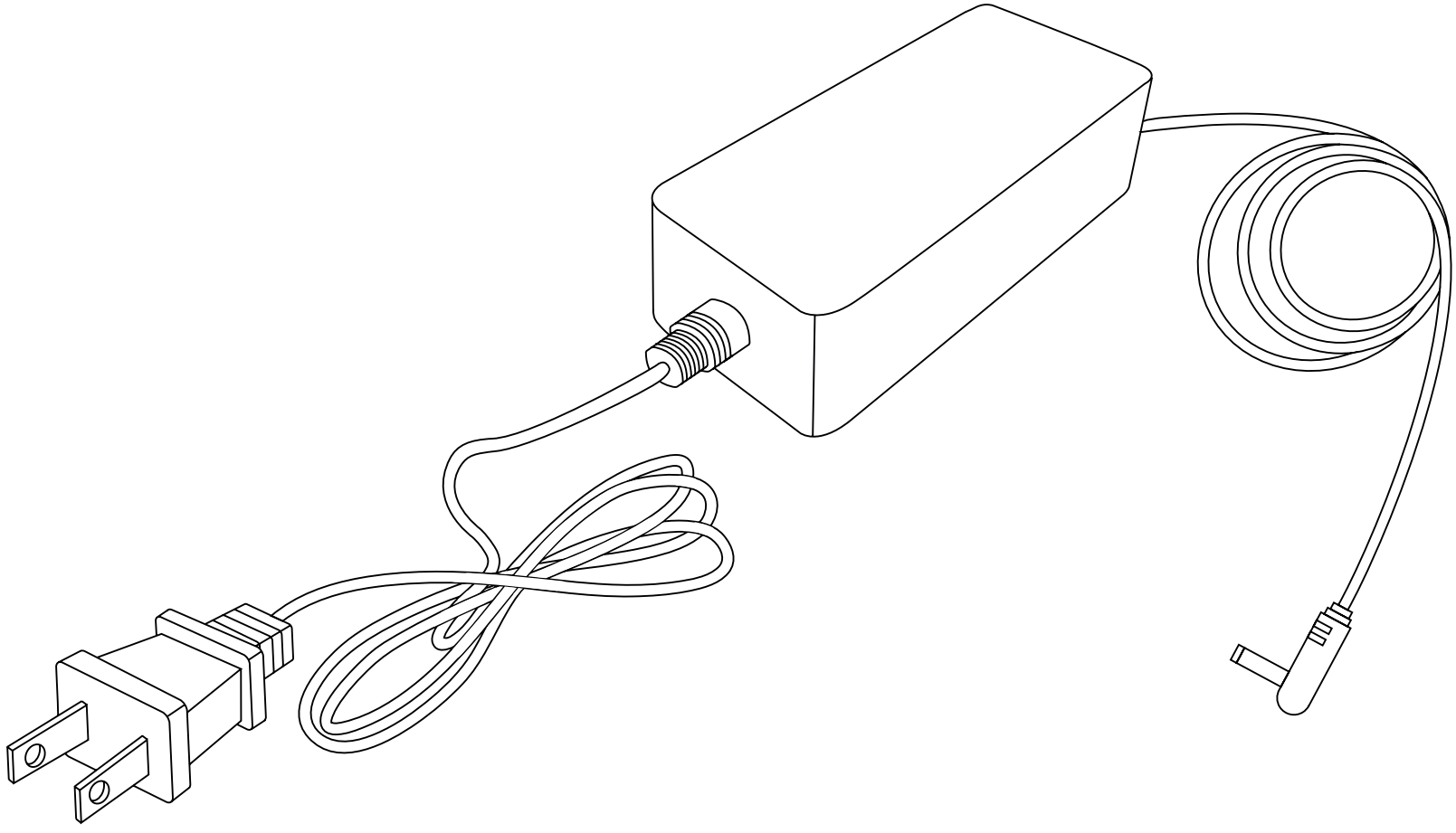
Optional accessories

FoobotSAT stand



FoobotSAT and Stand can be placed on a desk, table, or furniture. Make sure to have to the user button located on the top right, so the monitoring sensors function properly. In this configuration motion detection will only cover a limited area.

DC Power supply



UL compliant 12V Foobot power supply, delivering between 0.5 and 1.5 amps.

Usage instructions

Product Status

Use the following to understand product status, and troubleshoot:

SETUP

Loop of 3 blue LEDs.
lighting up, one after another

The device is ready to be setup via the app.

OK

Center LED blinking slowly in blue.

Monitor is running correctly and sends its readings to the internet platform.

DISCONNECTED

Loop of 3 orange LEDs.
lighting up, one after another

The device is not connected to the internet.

For more information and troubleshooting guides, check http://help.foobot.io

Consult or Retrieve FoobotSAT Readings

Once product set up is complete and the device is connected to the internet, visit http://dashboard.foobot.io from your computer or tablet. Alternatively, use the retrieval method or app supplied by your reseller.

Factory reset

To perform a factory reset, you need to press the button at the back of the product while powering up. Only do so if instructed by a support agent or your reseller.

The procedure is executed as follows:

1. Unplug your device.
2. Press the reset button using a thin object.
3. Plug the power back in while keeping the button press.
4. Wait until the 3 LED are lit (about 3 seconds).
5. Then you can release the reset button.

The monitor is now running factory software. It will probably perform a software update when it will get back online.

Intended use

FoobotSAT is intended to be used for:

1. Monitoring indoor air pollution and occupancy of indoor space with an Ethernet or WiFi internet connection.
2. Interfacing with compatible air treatment appliances, devices, or displays.
3. Providing live data to the Smart Air Building (Foobot SAB) service to optimize HVAC systems.

Environmental condition limits

For unit in operation		
Ambient room temperature	0° to 50°	Deg. Celsius
Ambient room humidity (non-condensing)	20 to 95	%
maximal usage altitude	2000	meters
For unit in storage		
Temperature	-10° to +65°	Deg. Celsius
Humidity (non-condensing)	5 to 95	%

Important Safety Instructions

Before setting up and using the device and its accessories, please read and adhere to the instructions. Always keep these instructions in a safe place for reference.

Warning

A ceiling mounted device may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions, such as:

- **ALWAYS** use stands and mounting devices recommended by the device manufacturer.
- **ALWAYS** use furniture that can safely support the device.
- **ALWAYS** route cords and cables connected to your device so they cannot be tripped over, pulled, or grabbed.
- **ALWAYS** hire a qualified technician from your jurisdiction to perform the installation.
- **NEVER** place the device in an unstable location or in a position that is not recommended by the manufacturer.

- Do not place the FoobotSAT in/under or next to liquid.
- Do not use FoobotSAT with hazardous products.
- Do not introduce any solid or liquid or gas inside the FoobotSAT.
- Do not inject gases or pollutants other than those naturally flowing in the air.
- Do not blow smoke or fumes directly toward the FoobotSAT.
- Do not try to open or make modifications to the FoobotSAT device.
- Do not use FoobotSAT if it has suffered any damage or if is not working properly.
- Do not put the FoobotSAT near any heat sources, such as radiators, heat registers, stoves or other devices that produce heat.

- Do not place anything on top of the FoobotSAT or have its opening covered or obstructed while powered.
- Do not use the FoobotSAT in a manner not specified by the manufacturer or with attachments/ accessories not specified by the manufacturer.
- Do not use the FoobotSAT near plants or vegetal.
- Do not use the FoobotSAT in environments exposed to heavily dust or chemicals such as buildings with ongoing renovation or places using chemical substances in their production process.
- Do not use close to silicone-based glue, joints, or any product releasing silicone or siloxane fumes.
- Do not drop or subject the device to undue shock.
- Do not use WiFi or Ethernet cable without plain right to WiFi or Internet access
- FoobotSAT should not be handled by children (under 13 years old).
- FoobotSAT is not suitable for outdoor use nor for outdoor air in duct measurements.
- FoobotSAT is not suitable as a one-shot measurement process, but rather mid to long-term.
- FoobotSAT is not suitable for being powered On and Off frequently.
- FoobotSAT is not suitable to be powered by a battery or an A/C adaptor not meeting its power rating or lacking a UL certification.
- FoobotSAT is not a medical device and shouldn't be used as a substitute for a substitute for a smoke or carbon monoxide detector or to detect any other urgent threat.
- FoobotSAT is not a safety or emergency device and shouldn't be used as a substitute to smoke, carbon monoxide or to detect any urgent threat.
- FoobotSAT is not suitable for places with restricted internet connection.
- This device should be operated with a minimum separation distance of 20 cm (8 inches) between the equipment and a person's body.

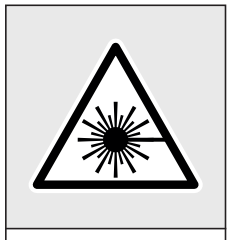
- This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference.

Important notes

1. FoobotSAT **is NOT TO** be used as an emergency or medical device.
2. If pollution remains high, you should consult an expert.
3. Excess pollution may damage sensors, harming the device's effectiveness. Accuracy of readings
4. isn't guaranteed and can be affected by improper usage.

Regulatory Information

Caution



CLASS 1
Laser product

This product uses a Laser System. To ensure proper use of this product, please read this owner's manual carefully and retain it for future reference. Should the unit require maintenance, contact an authorized service center. Performing controls, adjustments, or carrying out procedures other than those specified herein may result in hazardous radiation exposure. To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. DO NOT STARE INTO BEAM.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this product not authorized by Airboxlab S.A. could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

RF Exposure

The equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada Compliance Statement

This device complies with Industry Canada RSS-247 and license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: 1.This device may not cause interference. 2.This device must accept any interference, including interference that may cause undesired operation of the device. Innovation, Science and Economic Development Canada ICES-003 Compliance Label: CAN ICES-3(B)/NMB-3(B).

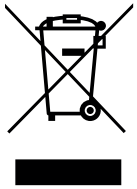
EU Compliance Notice

Hereby, Airboxlab S.A. declares that radio equipment type: SAT0001100 is in compliance with Directive 2014/53/EU (Radio Equipment Directive). The full declaration of conformity consulted in the support section of our Web site, accessible from https://foobot.io

RoHS Compliance

This product is in compliance with Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and its amendments.

Disposal and Recycling Information



This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

IC Notice:

This device complies with Canada Industry licence-exempt RSS standard(s). Operation is subject to the following two conditions:
(1) this device may not cause interference; and
(2) this device must accept any interference. Including interference that may cause undesired operation of the device.

CAN ICES-3 (B)

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exem pts de licence L'exploitation est autorisée aux deux conditions suivantes:
1) l'appareil ne doit pas produire de brouillage; et
2) l'utillsateur de l'appareil doit accepter brouillage radio électrique subi meme si le brouillage est susceptible d'encompromettre le fonctionnement. mauvais fonctionnement de l'appareil.

Cet appareil numériquie de la classe B est conforme à la norme NMB-003 du Canada.
CAN NMB-3 (B)

RF Exposure
Radiation Exposure Statement:
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.