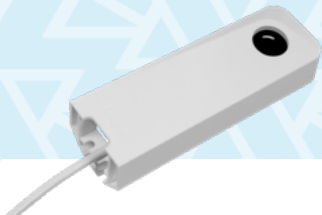
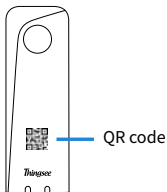


# Thingsee COUNT

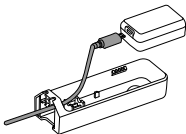
## Quick Guide



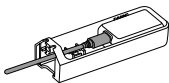
- 1.** Identify the sensor by reading the QR code on the front of the Cradle.



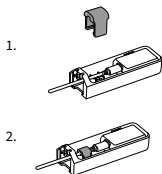
- 2.** Run the USB cable through the Cradle's holder and then install the USB cable to the sensor device unit. You'll hear a small snap once the cable is all the way in the sensor unit.



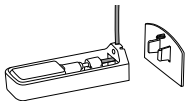
- 3.** Install the sensor unit to the Cradle. Now, you can route the USB cable upwards or downwards at the end of the Cradle.



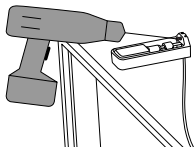
- 4.** Put the USB cable to the clamp groove. Take the Cradle clamp and snap it in its place so that it holds the cable firmly in place.



- 5. Installation method 1:** Snap the Attachment plate at the end of the Cradle the right way. Remove the tapes' paper cover and attach it to its place by pushing it firmly against the surface for a min. 5 seconds.



- Installation method 2:** Use a long, min. 11,5 cm, screwdriver to screw the cradle to the surface.



Install Thingsee COUNT above the passageway, 2,3 m from the floor, and connect the USB to a power supply. If the passageway has a door, install the device to the side to which the door does not open.

Continue to read the detailed installation instructions.

Watch installation video here





# **COUNT**

## User and Installation Guide

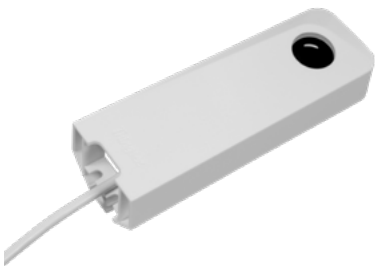
v.23.07

# Welcome to using Thingsee

Congratulations on choosing Haltian as your IoT solution. We at Haltian want to make IoT simple, so we have created a solution that is easy to use, scalable and secure. I hope it will help you achieve your business goals!

Pasi Leipälä  
CEO, Haltian Oy

## Thingsee COUNT



Thingsee COUNT is an IoT sensor device that detects movement beneath the device and reports the amount of times movement has been detected as well as the movement's direction.

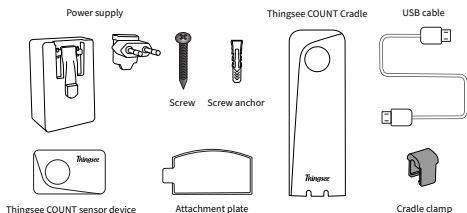
Thingsee COUNT can be used for various facility management applications related to utilisation rate, visitor counting, statistics and more.

Thingsee COUNT is a part of Haltian Thingsee IoT solution and product family.

## Sales package content

- Thingsee COUNT sensor device
- Thingsee COUNT Cradle
- 1 x Cradle clamp (found underneath the Cradle)
- 1 x Attachment plate with a tape
- 1 x screw and 1 x screw anchor
- USB cable (length: 3 m)
- Power supply
- Power outlet adapter for the power supply (specific to your region)

**Note:** Each sensor device and Cradle inside a package is a pair, and should always be used together. Do not mix parts from other packages.



## Needed for installation

- If you use screws for installation, you'll need a power drill with a long (at least 11,5 cm), Torx type screwdriver is needed to attach the Cradle to a wall
- E.g. a ladder to install the device above the passageway
- A measuring tape to measure the correct installation height
- Scissors to cut the cable tie around the USB cable
- Thingsee Toolbox application (Android & iOS) to identify the sensor device and configure the direction
- If using Thingsee Toolbox is not possible, you can use some other QR-code reader and inform Haltian support to adjust the direction if it's not the default value (outside)

## Using Thingsee COUNT sensor device

Thingsee COUNT is installed above a doorway or other passage from where it detects movement that passes beneath the device.

Thingsee COUNT consists of a sensor device unit and a cradle that houses the sensor and prevents the power cable from straining and pulling off. The device is powered by an external power source via a USB connector.

A typical use case for Thingsee COUNT is visitor counting and utilization monitoring for e.g. meeting rooms or other spaces. In general, the device can be placed in any passageway within the limits of the sensor detection capability. Refer to chapter 'Detection Capability' for detailed information.

Thingsee COUNT determines the direction of the movement when, for example, people enter and exit a room. The direction is configured during the installation using the Thingsee Toolbox application so that the device knows which side is regarded as moving into the space. The other side is automatically regarded as moving out.

## General installation instructions

### Selecting the installation spot

Select the installation spot on a wall or other solid surface directly above and in the middle of the passageway (max width 1000mm and max height 2100mm), so that the device cradle can be installed straight and pointing downwards at a 90 degrees angle. Make sure that you have an applicable power outlet near the installation spot.

The accuracy of the sensor is affected by exposure to bright sunlight or incandescent/fluorescent/halogen lamps. For optimal functionality, refrain from installing the sensor in areas with prolonged light exposure.

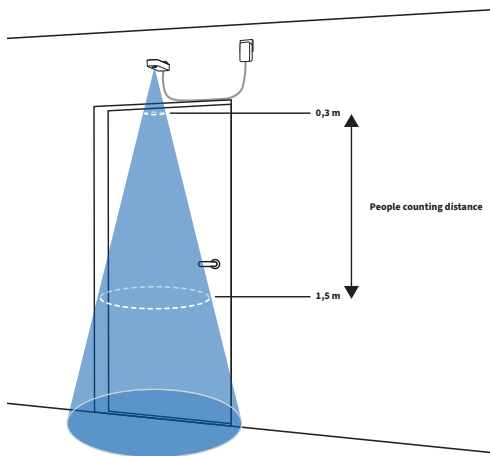
**Note:** If the electricity is cut off mid usage the sensor's counter will reset to zero.

The recommended installation height is 230 cm from the floor.

If the passageway has a door, install the device to the side to which the door does not open so that the door's movements are not registered by the device. If the door has a door pump, also make sure that the pump mechanism's movements are not registered by the device.

There should be nothing installed on the wall underneath Thingsee COUNT that can disturb the functionality of the device, such as lights or other devices.

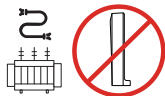
**Note:** If you use screws for the installation, make sure there are no electrical wires, other cables, water pipes or similar beneath the installation surface. If in doubt, consult your facility manager first.



# Things to avoid in installation

Avoid installing the Thingsee products near the following:

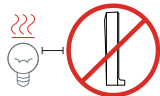
Electrical transformers or thick electrical wires



Escalators



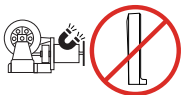
Nearby halogen lamps, fluorescent lamps or similar lamps with hot surface



Direct sun light or bright spotlight hitting the sensor as it may interfere with the laser beam and give inaccurate results.



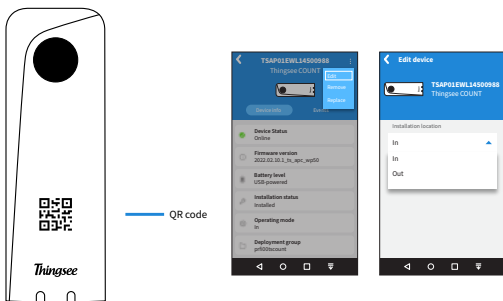
Near elevator motors or similar targets causing a strong magnetic field



# Installation

Please make sure the Thingsee gateway device is installed before you install the sensors.

Open the Thingsee Toolbox application on your mobile device and read the QR code on the front of the device. Select the location (IN/ OUT) according to the device installation location (inside of the meeting room door or outside of the meeting room door).

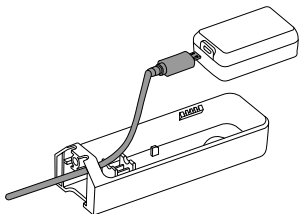


**Note:** Make sure the sensor is installed max. 20 meters from the next sensor or gateway.



## Installing the USB cable to Thingsee Count through the Cradle hole

Run the USB cable through the Cradle's holder and then install the USB cable to the sensor device unit. Make sure the USB cable's connector springs are upwards as shown in the image when connecting. You'll hear a small snap once the cable is all the way in the sensor unit.

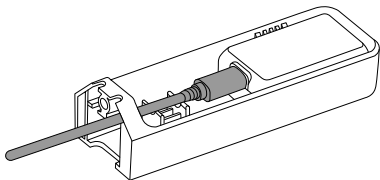


To remove any fingerprints or dirt on the sensor unit's 'eyeball', wipe it with a dry, clean and lint-free cloth.

## Installing Thingsee Count to Cradle

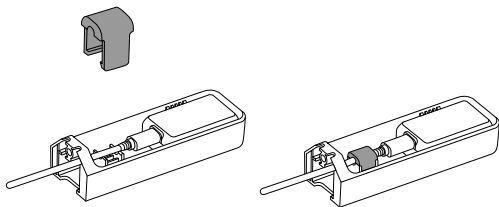
Install the sensor unit to the Cradle. You should hear a subtle snap sound once the sensor sits firmly in place between the two claws.

Now, you can route the USB cable upwards or downwards at the end of the Cradle so that the cable is not squeezed between the cradle and the installation surface.



## Installing the Cradle clamp

Put the USB cable into the clamp groove. The cable should be straight, not strained, but without any excess slack. Take the Cradle clamp and snap it in its place so that it holds the cable firmly in place.



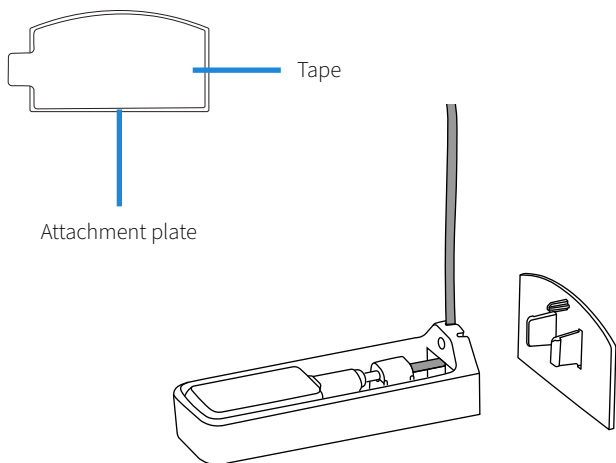
## Installation method 1

### Installing the Cradle with the Thingsee Count to a wall with tape

When installing Thingsee COUNT using tape, do it on a smooth surface for better adherence.

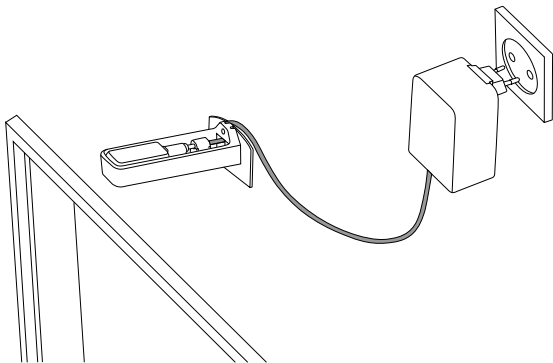
Use the Attachment plate accessory when installing Thingsee COUNT with tapes. Take the plate and snap it in its place at the end of the Cradle.

Make sure the plate is the right way, as shown in the image below, and is all the way attached.



Clean the surface you will attach the sensor to with IPA -solvent (iso-propyl alcohol).

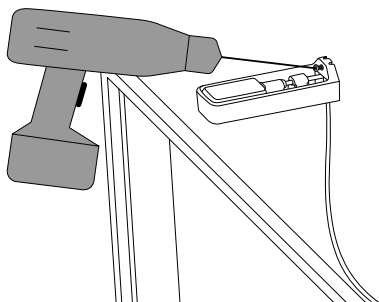
Remove the tape's paper cover and attach the Cradle to its place by pushing it firmly against the surface for a minimum of 5 seconds.



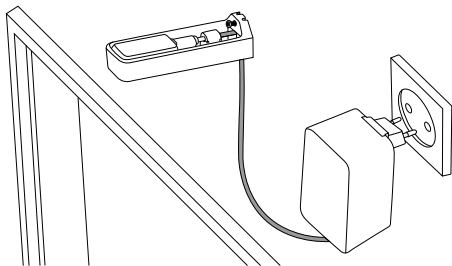
## Installation method 2

### Installing the Cradle with the Thingsee Count to a wall with a screw

Use a long, Torx model screwdriver to screw the cradle to your selected installation spot.

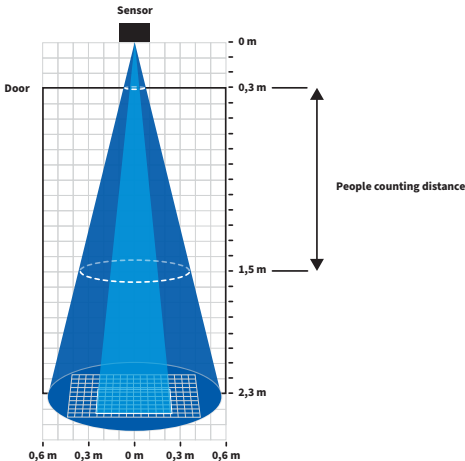


Connect the USB cable to the power supply and connect the power supply to an applicable power outlet.



# Detection capability

- Vertical measurement range: 300 mm - 1500 mm. Note that the device will not detect movement in very wide passageways or corridors if the movement is outside the vertical detection range.
- Sequential movements beneath the sensor require approximately 500 mm of space between them to be detected as separate, individual movements.
- The measurement accuracy depends on the ambient light conditions and target reflectance. Test materials used: solid, matte, white, 140 mm reference distance.
- The sensing area is a cone shape, non-adjustable, between +/- 13,5 degrees angle, region of interest (ROI).



## Basic functionality

- When a movement is detected, the first update is sent immediately and then the changes are reported every 30 seconds period
- If no movement has been detected the sensor reports every 1 hour period
- The sensor is in low latency mode enabling fast reaction and response time
- Last 24 hours sum of people who entered and exited, updated every 1 hour
- Configurable (1h - 24h) historical period reporting

## Default reporting values

**in** - People entered since the last report. When passing, the first entry is reported immediately and then by using a measurement interval period (default 30 seconds), otherwise, 1h reporting used.

**out** - People exited since the last report. When passing, the first exit value is reported immediately and then by using a measurement interval period (default 30 seconds), otherwise, 1h reporting used.

**historicalIn** - People entered during <configurable> history period when passing, the first value is reported immediately and then by using measurement interval (default 30 seconds), otherwise 1h reporting used.

**historicalOut** - People exited during <configurable> history period, when passing, the first value is reported immediately and then by using measurement interval (default 30 seconds), otherwise 1h reporting used.

**totalIn** - Sum of people entered during the last 24 hours (updated once per hour).

**totalOut** - Sum of people who exited during the last 24 hours (updated once per hour).

**amountIn** = People inside the room, a calculation is based on historicalIn and historicalOut values, otherwise, 1 hour reporting used.

## The following parameters are configurable over Thingsee Operations Cloud

- Measurement interval: default 30 seconds (configurable interval, defines in/out and historicalIn/historicalOut reporting period after first movement)
- Reporting interval: Without movement default reporting interval is 1 hour, configurable between 10 seconds to days
- Historical length: default 4 hours
- Inside or Outside installation
- Sensor low latency and low energy mode

## Device info

Operating temperature 0 °C ... +40 °C

Operating humidity 8 % ... 90 % RH non-condensing

Storage temperature +5 °C ... +25 °C

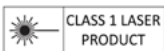
Storage humidity 45 % ... 85 % RH non-condensing

IP rating grade: IP40

Certifications: CE, FCC, ISED, RoHS, RCM and UKCA compliant

Class 1 laser (safe under all conditions of normal use)

Radio sensitivity: -95 dBm (BTLE)

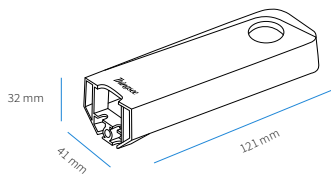


More device info can be found at [support.haltian.com](https://support.haltian.com)

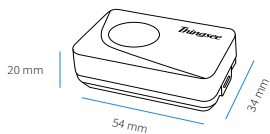


# Device dimensions

Weight: 39 g



Weight: 16 g



CERTIFICATION INFORMATION  
EU DECLARATION OF CONFORMITY

Please note that Thingsee Beam certifications are used also for Thingsee Count for the RF characteristics. Needed EMC and Safety tests have been performed because of the additions of TSCB, USB charger, USB cable and device holder.

Hereby, Haltian Oy declares that the equipment type TSCB is in compliance with Directive 2014/53/EU.  
The full text of the EU declaration of conformity is available at the following internet address: [support.haltian.com](http://support.haltian.com)

Haltian Oy vakuuttaa, että laitetyyppi TSCB on direktiivin 2014/53/EU mukainen.  
EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa:  
[support.haltian.com](http://support.haltian.com)

Hereby, Haltian Oy declares that the radio equipment type TSD2 is in compliance with the UK relevant statutory requirements (Radio Equipment Regulations 2017 (SI 2017 No. 1206)). The full text of the declaration of conformity is available at the following internet address: [support.haltian.com](http://support.haltian.com)

Thingsee COUNT operates at Bluetooth® 2.4 GHz frequency band. Maximum radio-frequency power transmitted is +4.0 dBm.

Manufacturer name and address:  
Haltian Oy  
Yrtpellontie 1 D  
90230 Oulu  
Finland

FCC REQUIREMENTS FOR OPERATION IN THE UNITED STATES

Supplier's Declaration of Conformity

This Declaration of Conformity is hereby issued according to Chapter 1, Subpart A, Part 2 of Title 47 of the Code of Federal Regulations by:

Haltian Oy  
Yrtpellontie 1 D, 90230 Oulu, Finland

The product Thingsee Count B cover/TSCB complies with the applicable requirements of FCC Rule Part 15

RESPONSIBLE PARTY located in the United States:

Violette Engineering Corporation  
6731 Whittier Avenue  
McLean, VA 22101  
[info@violettecorp.com](mailto:info@violettecorp.com)

The responsible party warrants that each unit of equipment marketed under this Declaration of Conformity will be identical to the unit tested and found acceptable with the standards and that the records maintained by the responsible party continue to reflect the equipment being produced under such Supplier's Declaration of Conformity continue to comply within the variation that can be expected due to quantity production and testing on a statistical basis.

Industry Canada:

Industry Canada Compliance Statement  
This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## SAFETY GUIDE

Read these simple guidelines. Not following them may be dangerous or against local laws and regulations. For further information, read the user guide and visit [www.haltian.com](http://www.haltian.com)

### Usage

Do not cover the device as it prevents the device from operating properly.

- This product is intended for indoor use only and shall not be exposed to rain. The operating temperature range for the device is 0...+40 °C.
- Do not modify the device. Unauthorized modifications may damage the device and violate regulations governing radio devices.
- Do not store the device in wet or humid conditions.

### Care and maintenance

Handle your device with care. The following suggestions help you keep your device operational.

- Do not open the device other than as instructed in the user guide.
- Unauthorized modifications may damage the device and violate regulations governing radio devices.
- Do not drop, knock, or shake the device. Rough handling can break it.
- Only use a soft, clean, dry cloth to clean the surface of the device. Do not clean the device with solvents, toxic chemicals or strong detergents as they may damage your device and void the warranty.
- Do not paint the device. Paint can prevent proper operation.

### Damage

If the device is damaged contact [support@haltian.com](mailto:support@haltian.com). Only qualified personnel may repair this device.

### Small children

Your device is not a toy. It may contain small parts. Keep them out of the reach of small children.

## RECYCLING

Check the local regulations for proper disposal of electronic products. The Directive on Waste Electrical and Electronic Equipment (WEEE), which entered into force as European law on 13th February 2003, resulted in a major change in the treatment of electrical equipment at end-of-life. The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal. The crossed-out whee-lie-bin symbol on your product, battery, literature, or packaging reminds you that all electrical and electronic products and batteries must be taken to separate collection at the end of their working life. Do not dispose of these products as unsorted municipal waste: take them for recycling. For info on your nearest recycling point, check with your local waste authority.



Innovation, Science and  
Economic Development Canada

Innovation, Sciences et  
Développement économique Canada



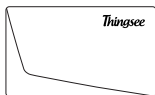
# Get to know all our Thingsee devices



Thingsee PRESENCE



Thingsee ENVIRONMENT



Thingsee AIR



Thingsee BEAM



Thingsee ENVIRONMENT  
RUGGED



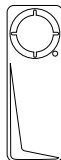
Thingsee LEAKAGE  
RUGGED



Thingsee  
COUNT



Thingsee GATEWAY  
GLOBAL



Haltian  
RADAR

For all devices and more information, visit our website [www.haltian.com](http://www.haltian.com) or contact [sales@haltian.com](mailto:sales@haltian.com)