

# Application note on people counting with TeraRanger Evo People Counter



# Table of contents

<b>1. Introduction</b>	<b>3</b>
<b>2. Evo People Counter integration guidelines</b>	<b>3</b>
2.1. Vertical mounting	3
2.2. Horizontal mounting	4
2.3. Threshold parameters	5
<b>3. Additional application use case hints</b>	<b>6</b>

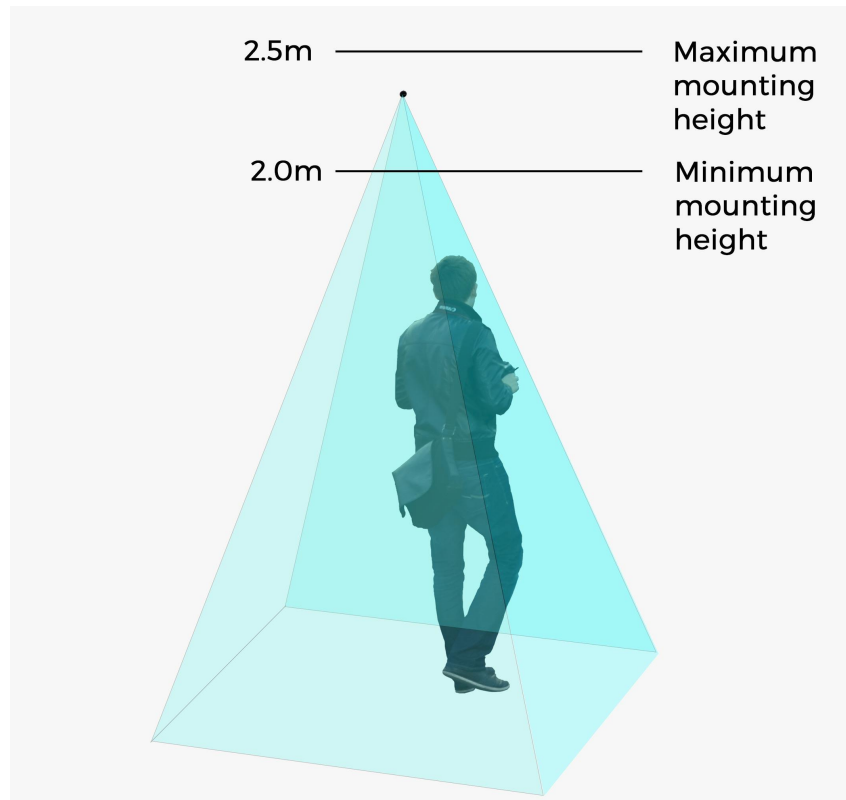
# 1. Introduction

This application note describes the usage of a Terabee Evo People Counter for Bidirectional Traffic Counting applications. The following recommendations will help you get the best performance out of this sensor, when it is being used for Traffic Monitoring applications.

## 2. Evo People Counter integration guidelines

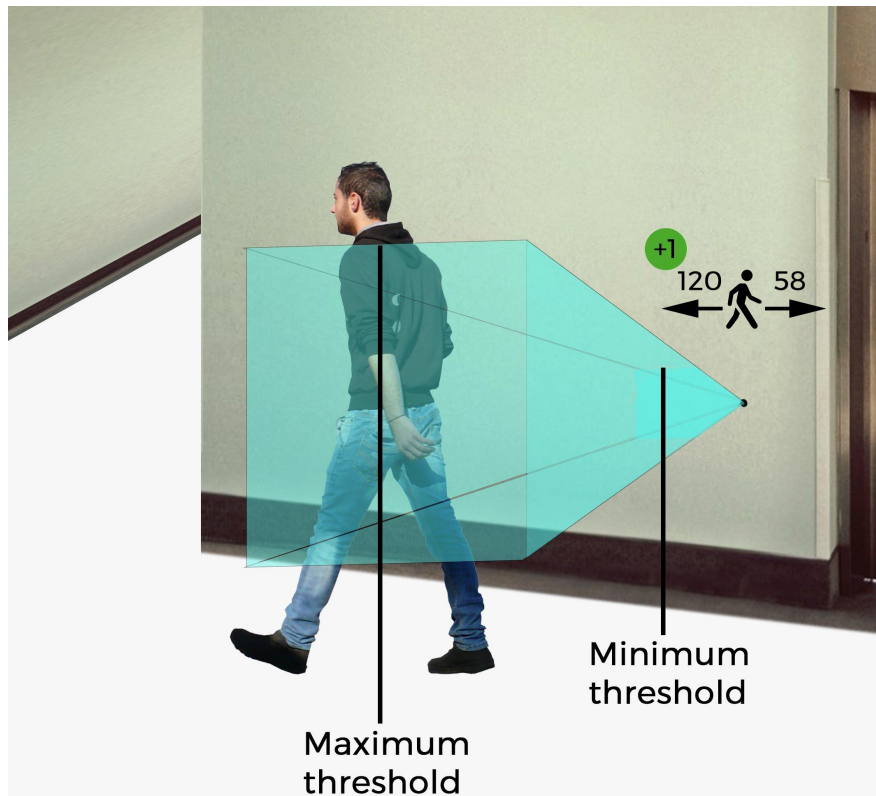
### 2.1. Vertical mounting

- The Evo People Counter sensor FoV is adapted to cover single standard door widths (80-90 cm)
- The sensor needs to be mounted flat on the surface it is fixed on, and be positioned perfectly perpendicular to the passage area
- The minimum validated mounting height of the sensor is 2.0 m from the ground
- The maximal validated mounting height of the sensor is 2.50 m from the ground
- It is possible to change the sensor range maximum and minimum threshold to adapt it to your use case
- The sensor can only count one person passing by at the same time (meaning that two persons tailgating for instance, will be counted as one)



## 2.2. Horizontal mounting

- The Evo People Counter sensor needs to be mounted flat on the surface it is fixed to and be perfectly perpendicular to the passage area
- A minimum distance of 10 cm between the sensor and the passage is recommended
- It is possible to change the sensor's maximum and minimum threshold to adapt it to your use case
- The maximum validated range of the sensor is 1.5 m from the sensor. The minimum validated range of the sensor is 10 cm
- The sensor can only count one person at a time. It means that two people walking side by side or crossing in front of the sensor will be counted as one

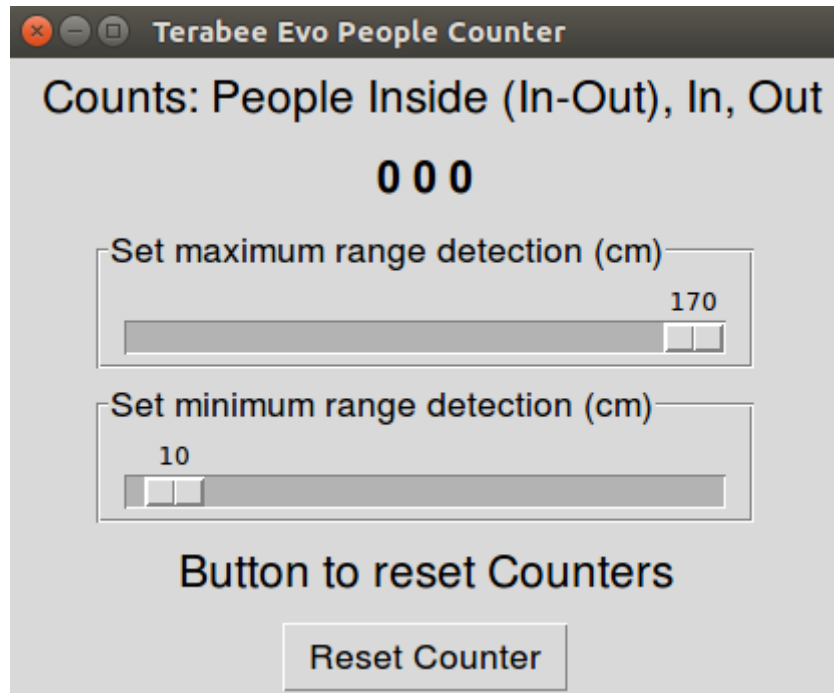


## 2.3. Threshold parameters

- Maximum Threshold: Maximum distance in cm the sensor will count the person passing in. Can be set up with the Evo People Counter GUI
- Minimum Threshold: Minimum distance in cm the sensor will count the person passing in. Can be set up with the Evo People Counter GUI

The GUI uses the concept of classic people counting and will show the number of people that have entered a room or zone and the number of people that have left the zone or room. A simple subtraction is made to display the number of people calculated to be inside the room or zone, in real-time.

The sensor, however, has 3 outputs, including the calculated number of people inside, the number of people counted in or the number of people counted out. Whilst we use the term "In" and "Out" this could be substituted with the words left and right, signifying people passing the sensor in one direction or another. In this way you can use the sensor for classic people counting applications, but also for the simple measurement of footfall in a corridor or other defined area.



### 3. Additional application use case hints

- 1) Avoid static objects from remaining in the sensor FoV
- 2) An indication of the Sensor FoV at 3 distances is provided in the diagram below

