

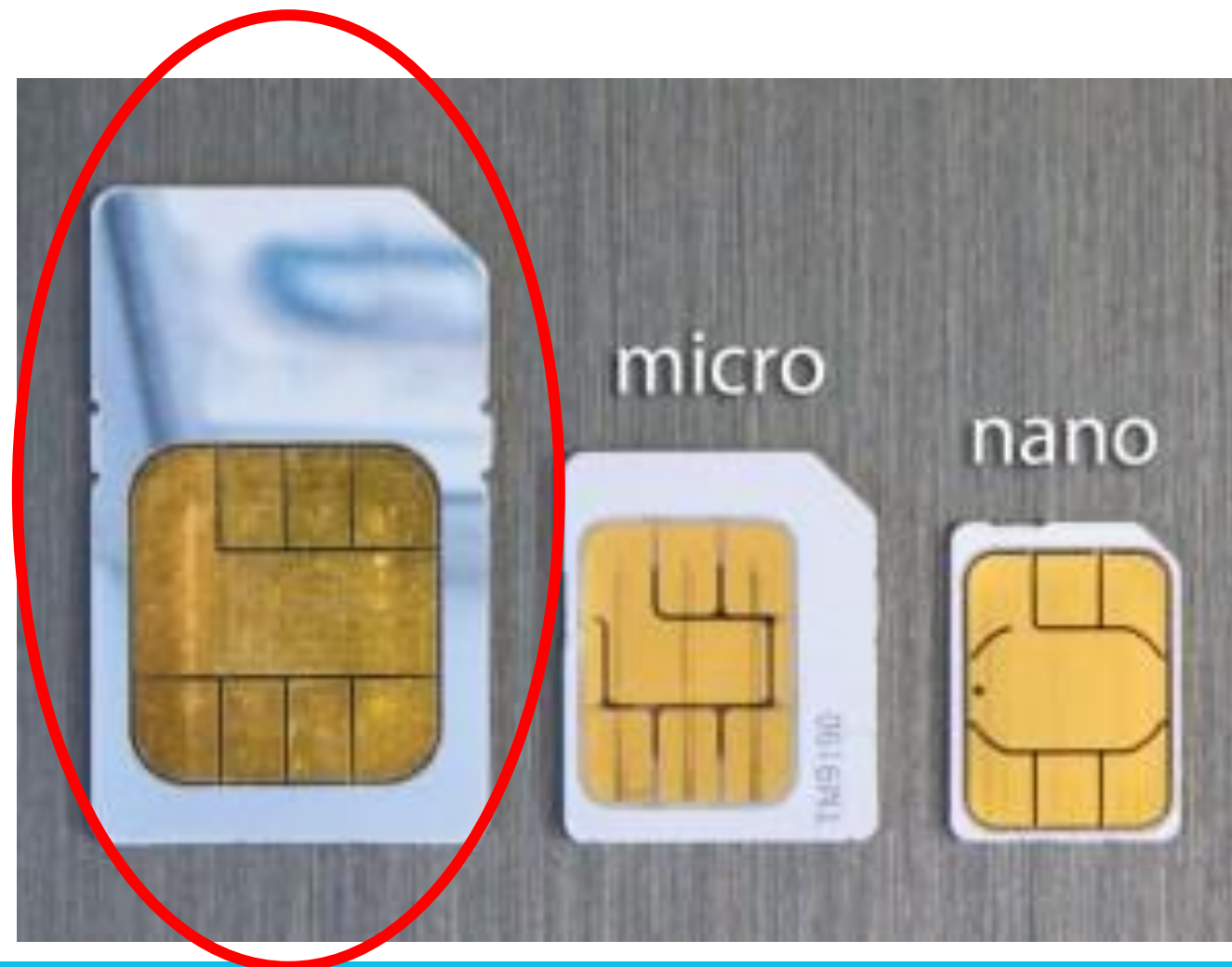
BRIDGE INSTALLATION: SIM CARD

Insert SIM card in this slot.



BRIDGE INSTALLATION: SIM CARD

Whereas the SIM card that is used in the Handheld device depends on the smartphone or tablet, **Bridge SIM card is always standard-sized large SIM.**



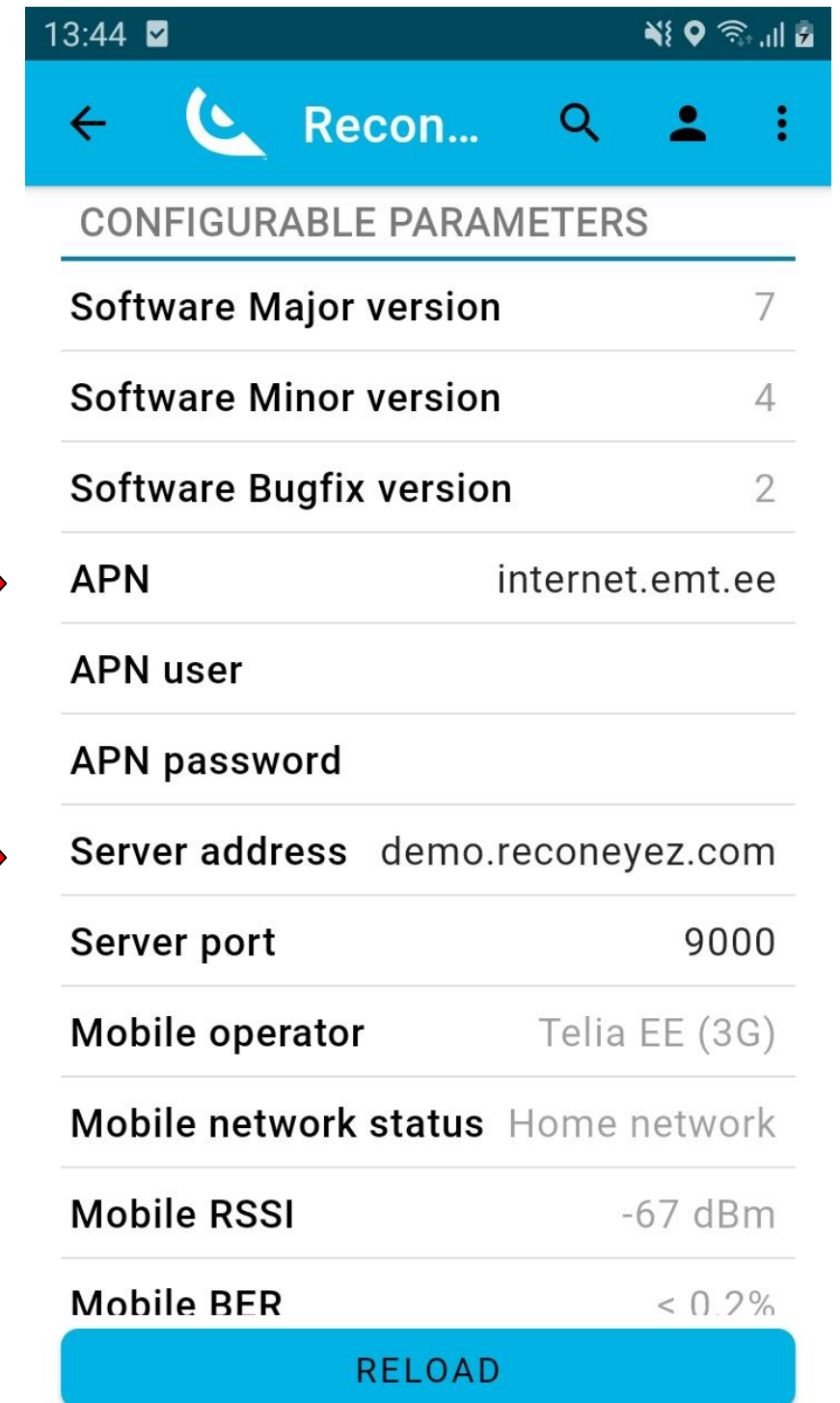


BRIDGE INSTALLATION: CONF.

After the SIM card has been inserted it is necessary to **configure the correct *APN* and *Server address*** for the Bridge with the Handheld.

Please **use the Handheld device** to find the Bridge and change the *APN* and *Server address* in the *Bridge Configurable parameters* menu.

Please refer to *Handheld manual* for more detailed instructions on different parameters.



CONFIGURABLE PARAMETERS	
Software Major version	7
Software Minor version	4
Software Bugfix version	2
APN	internet.emt.ee
APN user	
APN password	
Server address	demo.reconeyez.com
Server port	9000
Mobile operator	Telia EE (3G)
Mobile network status	Home network
Mobile RSSI	-67 dBm
Mobile BER	< 0.2%
RELOAD	

BRIDGE INSTALLATION: CONF.

Please measure **GSM signal quality** in the **installation area** with the ReconEyez app in the Handheld before installation of devices.

Mobile RSSI in Bridge *Configurable parameters* menu displays the GSM signal quality usually from -100 (min) to -20 (max) dBm.

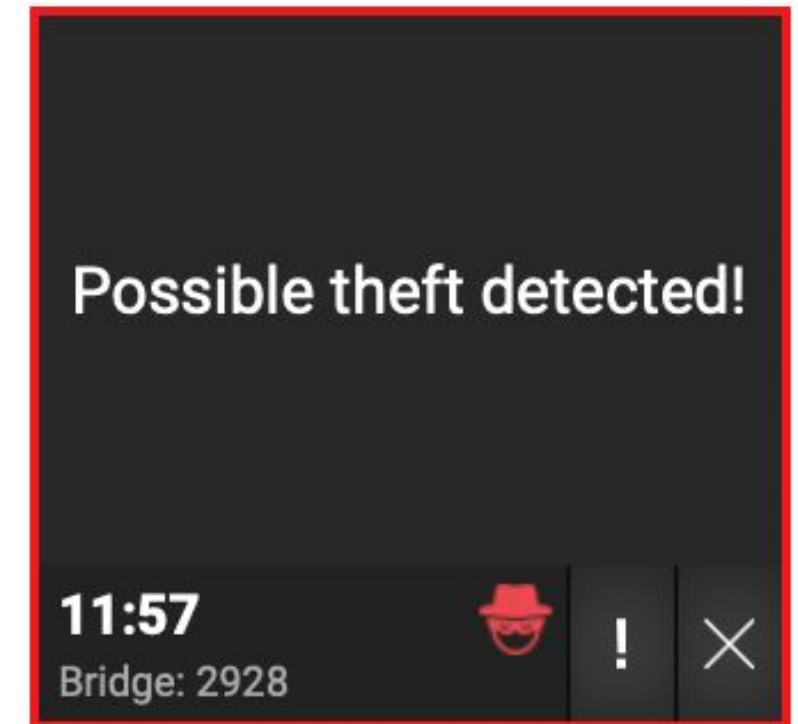
For good alarm traffic any GSM signal under -100 dBm is acceptable for the Reconeyez system.



BRIDGE INSTALLATION: CONNECTIVITY TEST

After configuration, Bridge should have first **connectivity test**. There are two ways to do this:

- 1) Please insert all 4 batteries into the Bridge and make a *Theft alarm* (shake the Bridge a few times). Please check the *Command Center User Interface (UI)* if the corresponding Bridge sent a *Theft alarm* to *UI*. Repeat if necessary.



The image above shows how a *Theft alarm* appears in UI.

BRIDGE INSTALLATION: CONNECTIVITY TEST

After configuration, Bridge should have first **connectivity test**. There are two ways to do this:

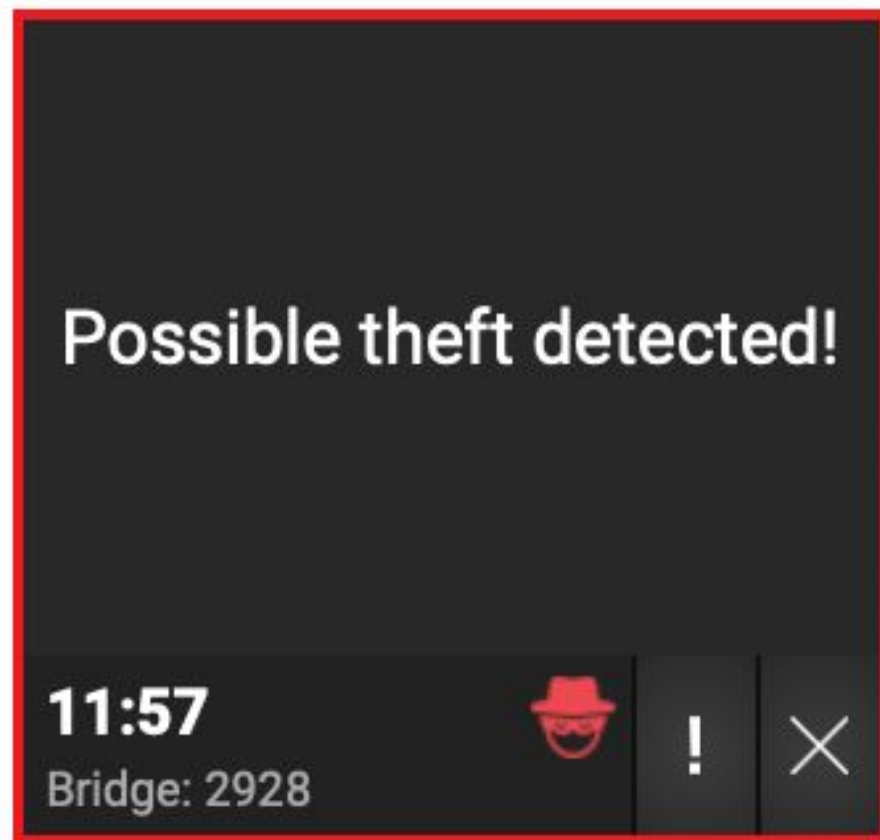
2) Use the *Handheld*, go to Bridge – *Configurable parameters*, make a *Theft alarm*, press Refresh in *Configurable parameters* menu, see if the *3G/GSM RSSI* displays signal strength in dBm (-20 to -100). If it does, then Bridge has connectivity with server.



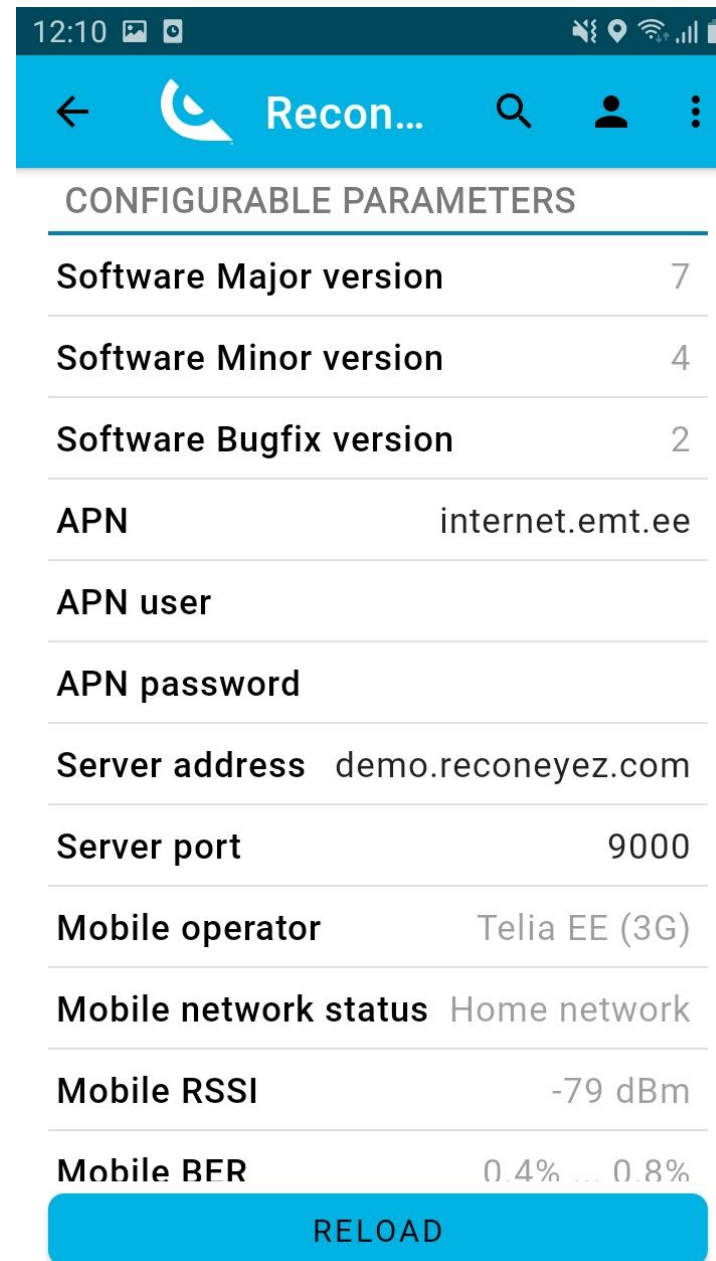
CONFIGURABLE PARAMETERS	
Software Major version	7
Software Minor version	4
Software Bugfix version	2
APN	internet.emt.ee
APN user	
APN password	
Server address	demo.reconeyez.com
Server port	9000
Mobile operator	Telia EE (3G)
Mobile network status	Home network
Mobile RSSI	-79 dBm
Mobile BER	0.4% ... 0.8%
RELOAD	

BRIDGE INSTALLATION

1. Always perform Bridge connectivity test as first step in each installation location after entering all 4 batteries!



The image above shows how a *Theft alarm* appears in UI.



CONFIGURABLE PARAMETERS	
Software Major version	7
Software Minor version	4
Software Bugfix version	2
APN	internet.emt.ee
APN user	
APN password	
Server address	demo.reconeyez.com
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Mobile operator	Telia EE (3G)
Mobile network status	Home network
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RELOAD

BRIDGE INSTALLATION

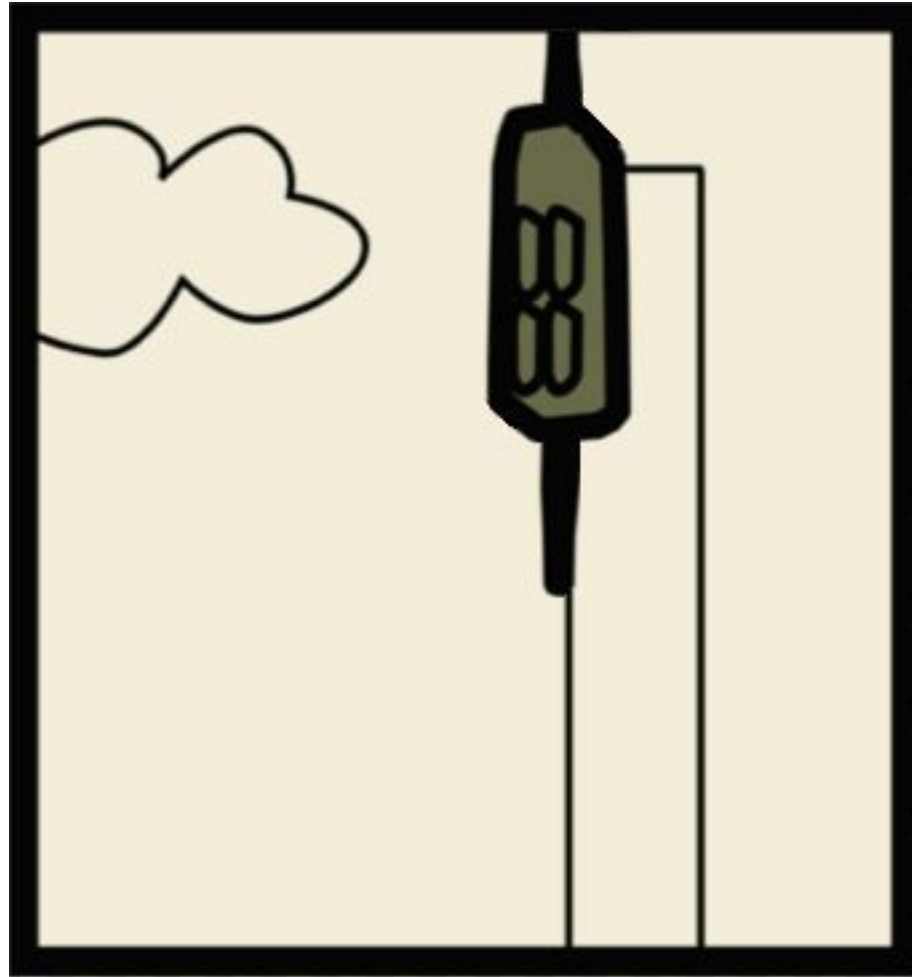
2. Find a **suitable place to install the Bridge**. In areas with poor GSM coverage the Bridge should be installed at an elevated position!

Bridge should be installed:

- on an **elevated position** (for better GSM / 2,4 GHz radio coverage and camouflage)
- with minimal possible distance from all adjacent Detectors
- with preferable **direct line of sight** with all Detectors (or minimal obstructions);
- **NOT** near powerful electric currents/gadgets;
- **NOT** surrounded by radio blocking materials (e.g. underground, in metal container etc.).



BRIDGE INSTALLATION



Avoid radio-wave obstacles near the Bridge! The Bridge must have good access to GSM/Mobile network. Avoid close proximity of walls, metal objects, electric devices, don't install underground or in cavities. Install in **elevated position** in regions with low GSM/Mobile coverage.

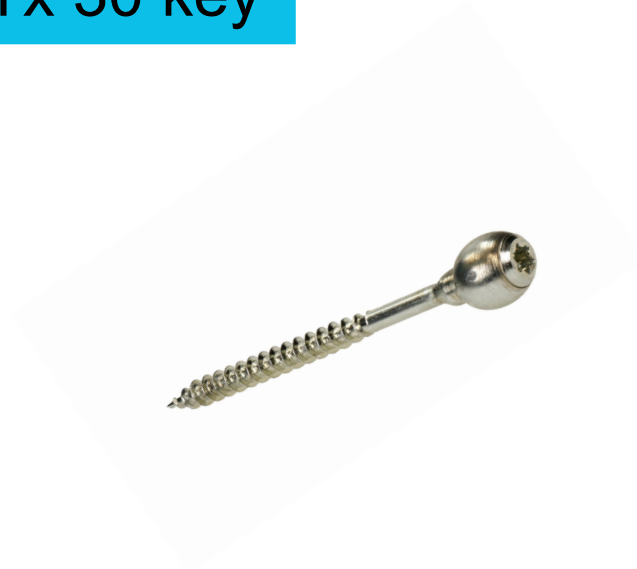
BRIDGE INSTALLATION

3. First install the fastening unit (screw, plate) to the surface.

Use the Tx 30 key to fix a fastening-screw and cable-ties to fix a fastening-plate.



Tx 30 key



Final position



BRIDGE INSTALLATION

The **correct position of the Bridge is vertical**, as shown on the photo – the 2,4 GHz antenna pointed downwards.

Due to Bridge omnidirectional antennas it is **not advised to install Detectors directly above or below the Bridge!**

Always insert all 4 batteries to make Bridge hermetic and avoid water damage to the inside of the Bridge!



BRIDGE INSTALLATION

4. Use the 8 mm hex key to fasten the Bridge on the fastening screw/fastening plate/mast. Rest the lower end of the Bridge onto the surface if possible.



8 mm hex key

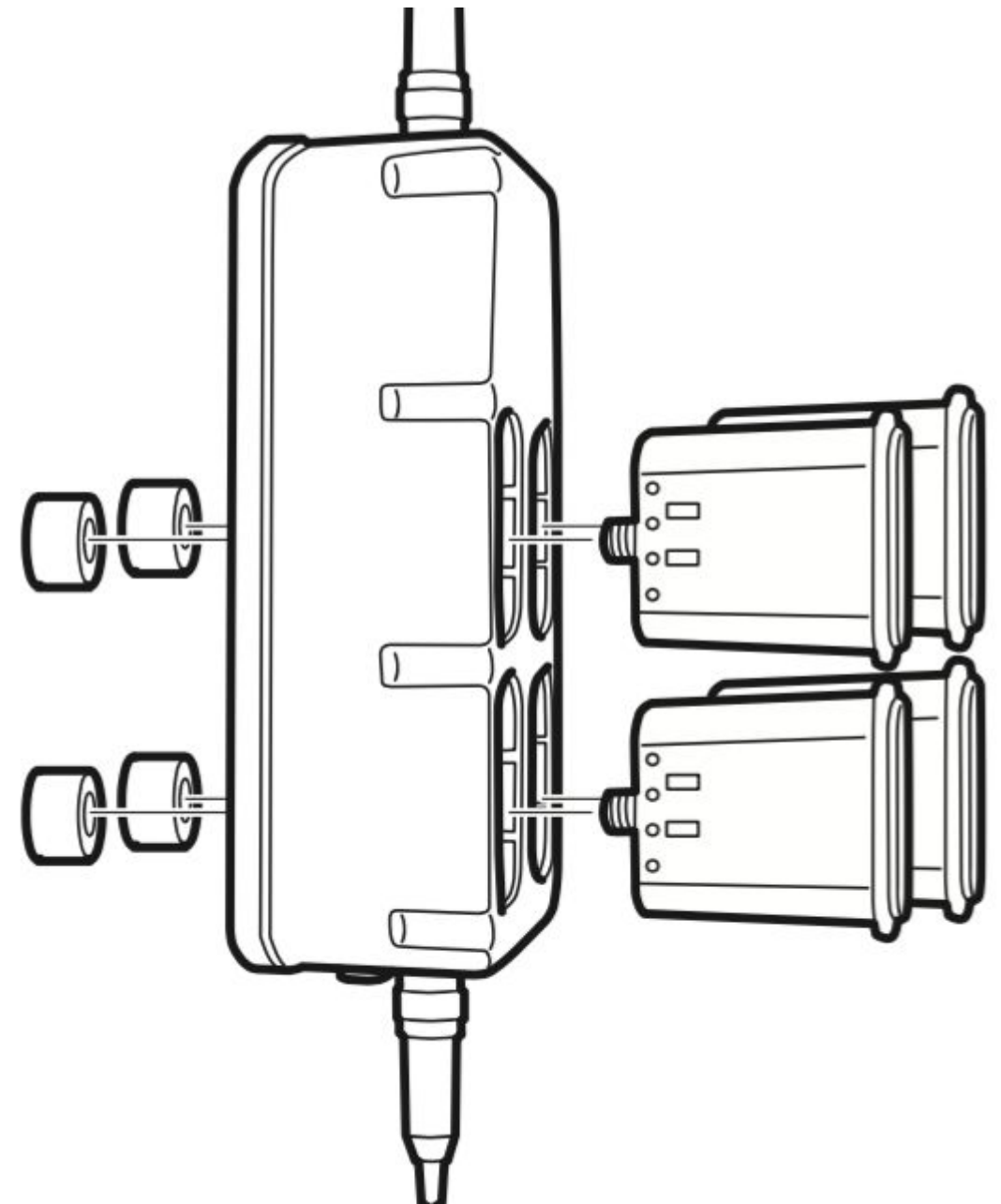


BRIDGE INSTALLATION

5. Always make sure to enter all 4 batteries - without all 4 batteries Bridge is not waterproof!

Check that each battery has 2 rubber seals in tact and fasten them with nut/security nut.

Bridge is now ready to receive alarms.



DETECTOR INSTALLATION



DETECTOR INSTALLATION

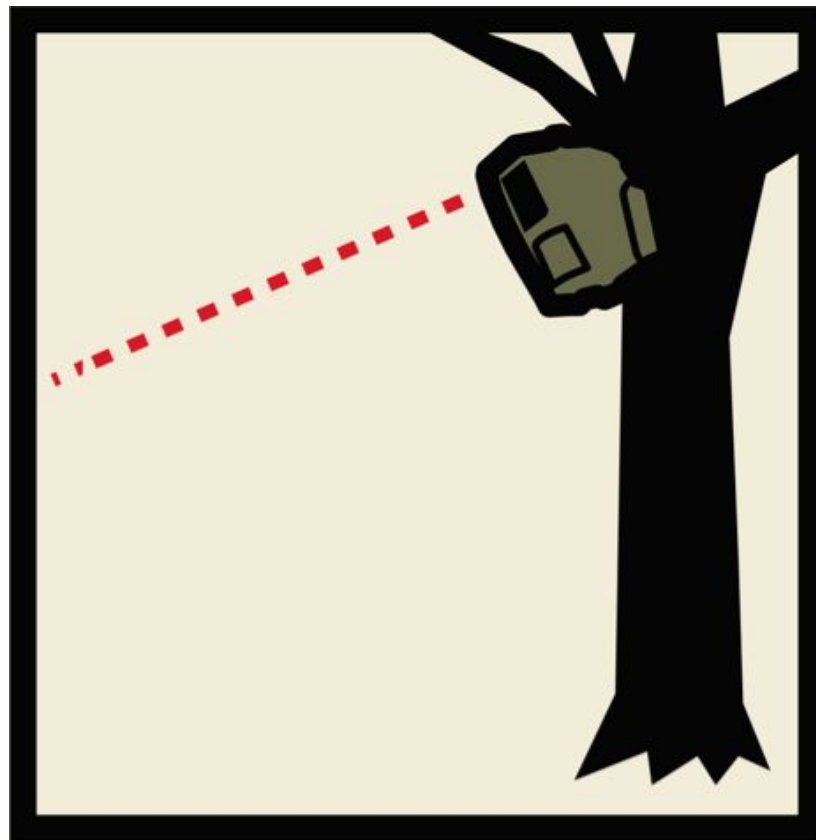
1. Find a suitable place for the Detector to cover the chosen hotspot or gap. The best alarm speed will be achieved **with direct line of sight between the Detector and the Bridge.**



DETECTOR INSTALLATION

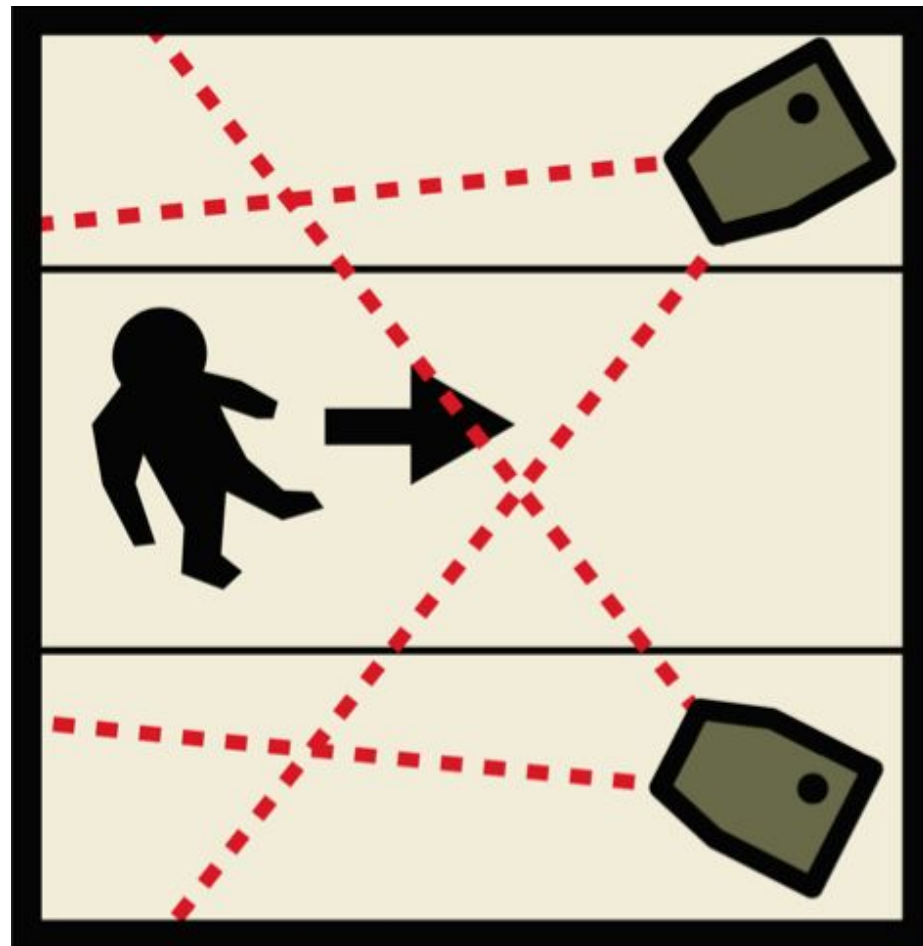
2. Make sure that there are no small branches or leaves in **150 degree** and **3 meter radius** of the Detector that may cause false alarms and *IR* flash overexposure in night photos. Try to avoid larger moving objects (e.g. large bushes moving in the wind) in the detection area of **30 meters**. Use appropriate tools to clean branches and plants in front of the Detector.

In order to maintain the quality of the night image, it is important that there are no objects from which it reflects light at a distance of 3-5 meters. Otherwise, the image quality and AD decision precision will deteriorate.



DETECTOR INSTALLATION

3. Ensure that the field of view of the Detector covers the desired hotspot correctly! Place the Detector **diagonally** towards the movement path to ensure that the moving person or object is in the field of view for longer time and at least half-profile is captured. Check that the desired hotspot is on the Alarm photo through Handheld or Reconeyez Web UI.



DETECTOR INSTALLATION

4. Install the Detector on a stable surface. Avoid thin trees/posts that can move. This helps to prevent false alarms due to wind or passing traffic vibrations.



DETECTOR INSTALLATION

5. Put in place the fastening unit (screw, plate). Use the Tx 30 key for a fastening screw and screws/cable-ties for fastening plate.

Use the 8 mm hex key to fasten the Detector with the correct downward angle to the fastening unit (pole, screw or plate).



Installation pole



Fastening screw



Fastening plate



DETECTOR INSTALLATION

6. Insert the battery last to avoid nuisance alarms.

It is recommended to install the battery after all other installation works have been done. **This reduces the number of nuisance alarms caused by the movement in the detection area during installation process.**

Circa 30 seconds after batteries have been entered the Detector is ready to send alarms to Command Center.



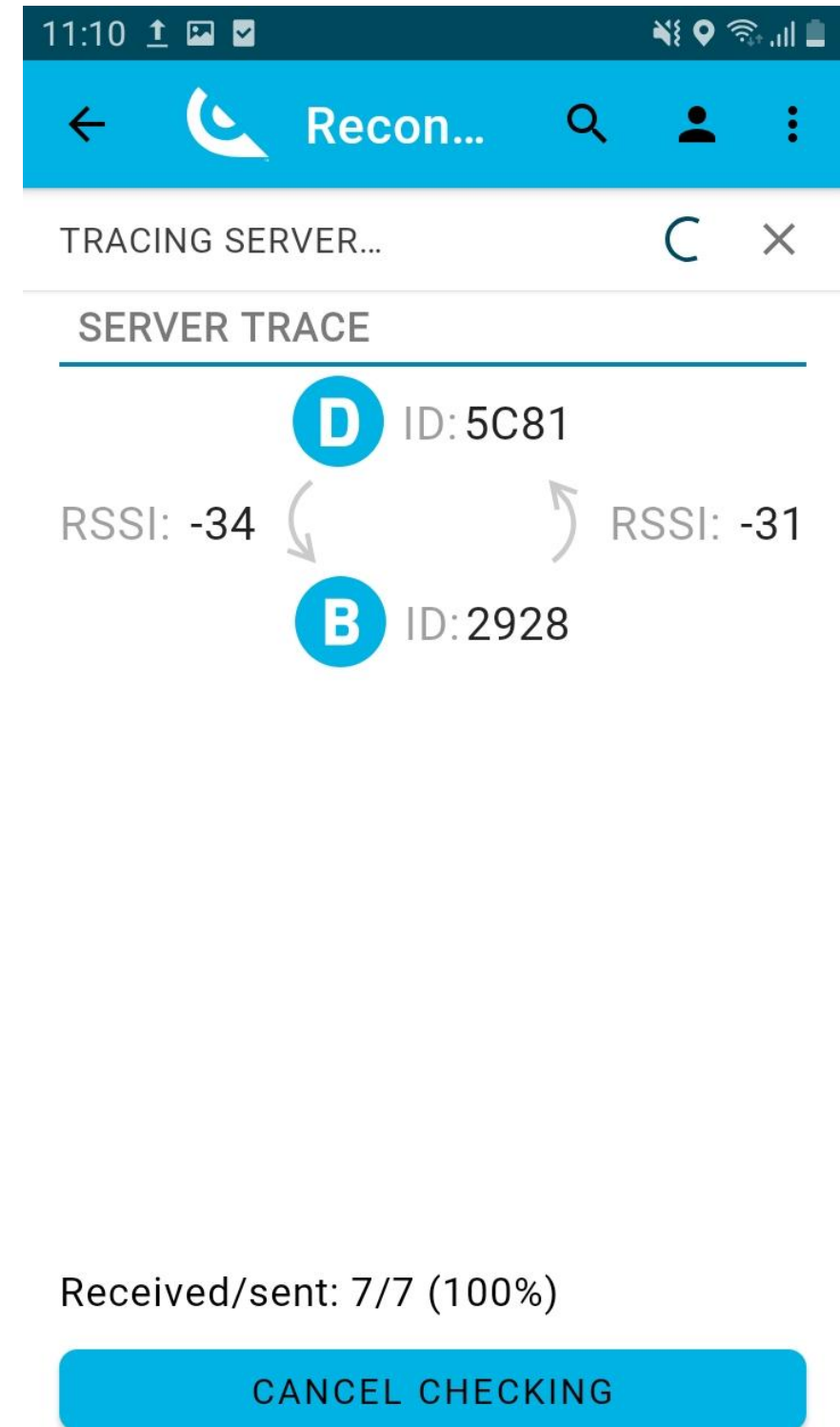
DETECTOR INSTALLATION

7. When batteries inserted perform a *Trace* to check signal from detector to Bridge.

Trace enables to measure 2,4 GHz signal between the detector and bridge in real time.

This is a vital tool during installation.

Trace function must be enabled from *Settings* menu of ReconEyez before use.

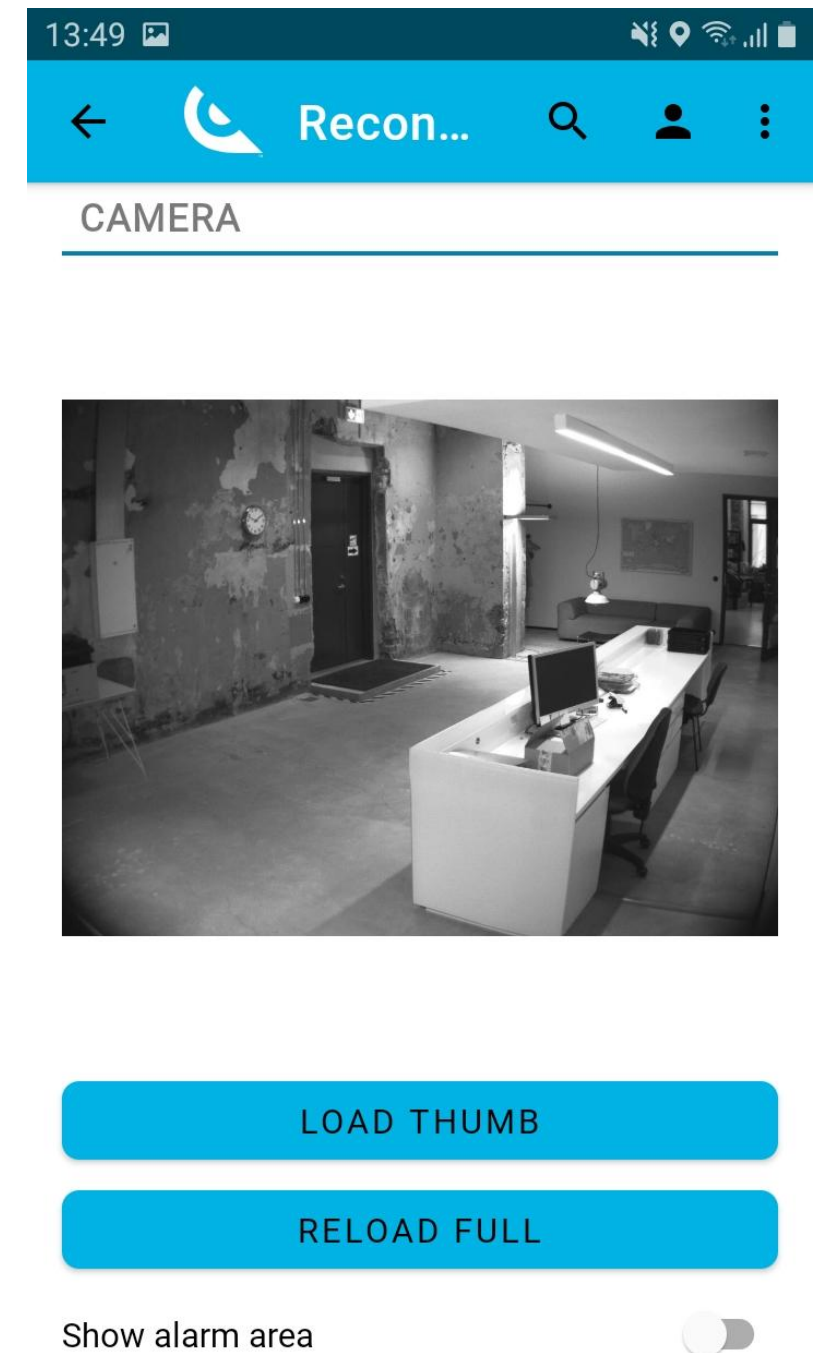


DETECTOR INSTALLATION

8. Use the ReconEyez application on the *Handheld device* to **request a test photo from the Detector**. This helps to check if the Detector *PIR sensor* is covering the desired areas. Please refer to *Handheld manual* for more detailed instructions if necessary.

Selecting **Show alarm area** in *Handheld* displays the movement detection area of the PIR sensor on the alarm photo.

This is a vital tool in the installation process of Detectors.



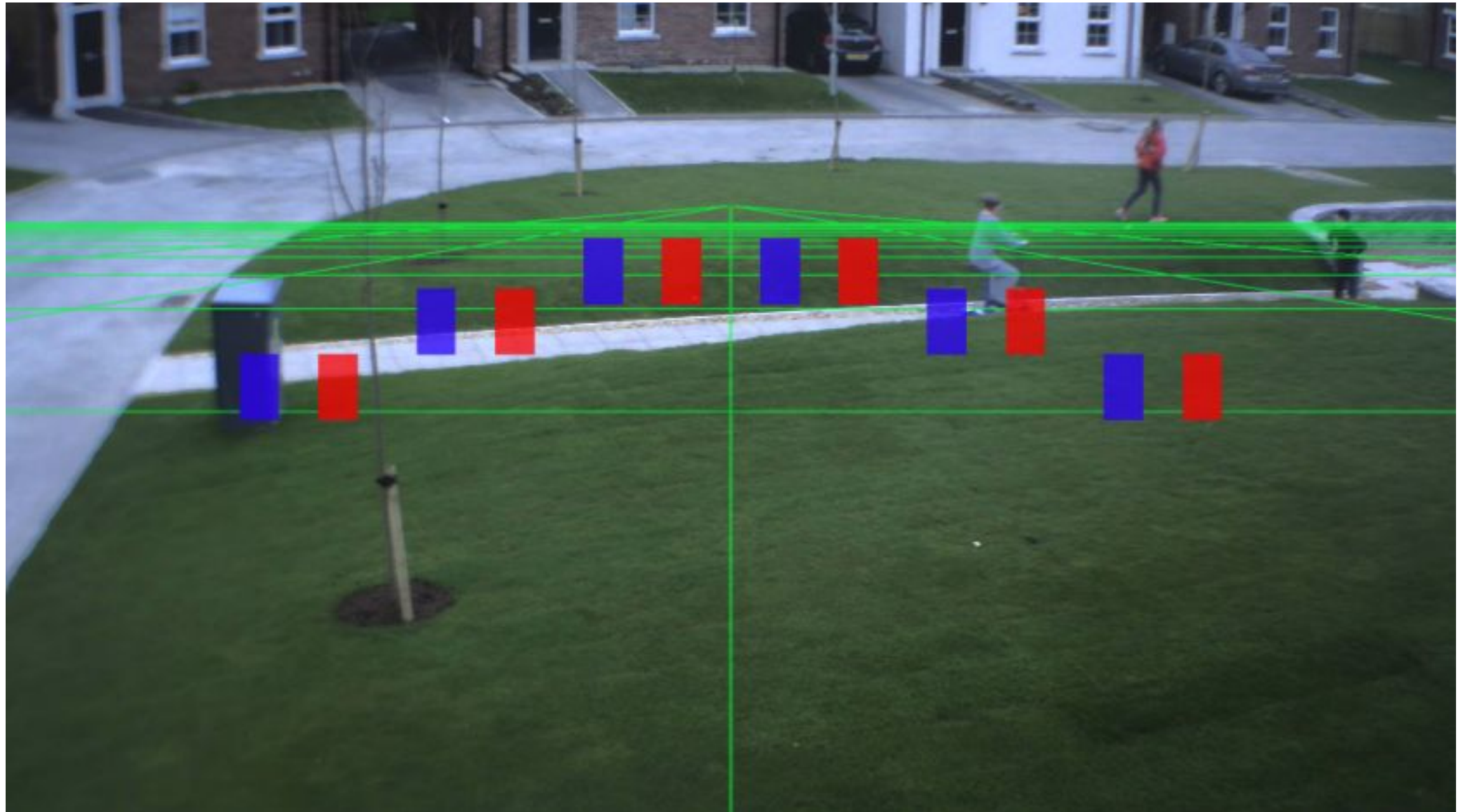
DETECTOR INSTALLATION

After batteries have been inserted then **it is critical to check the field of view of detector with Handheld device.**

- make sure that the **centermost PIR sensor zones** are pointing at the **mid-section of potential intruder at desired maximum distance**
- for example **stand at 25-30 meter distance with Handheld and adjust detector angle so the centermost squares would point at your mid-section.**

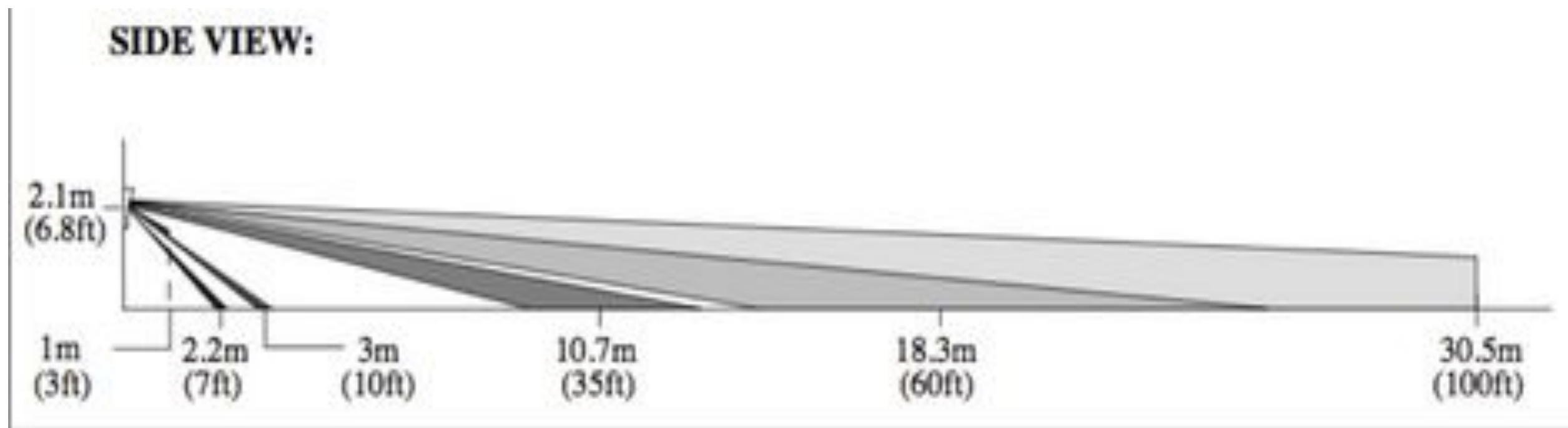


DETECTION AREA



PIR SENSOR DETECTION ZONES ON AN ALARM PHOTO.

DETECTION AREA



Detector *PIR* sensor coverage, side view.

Ideal installation height in case of flat ground is 2,1 meters with detector downward angle of 12 degrees.

DETECTION AREA

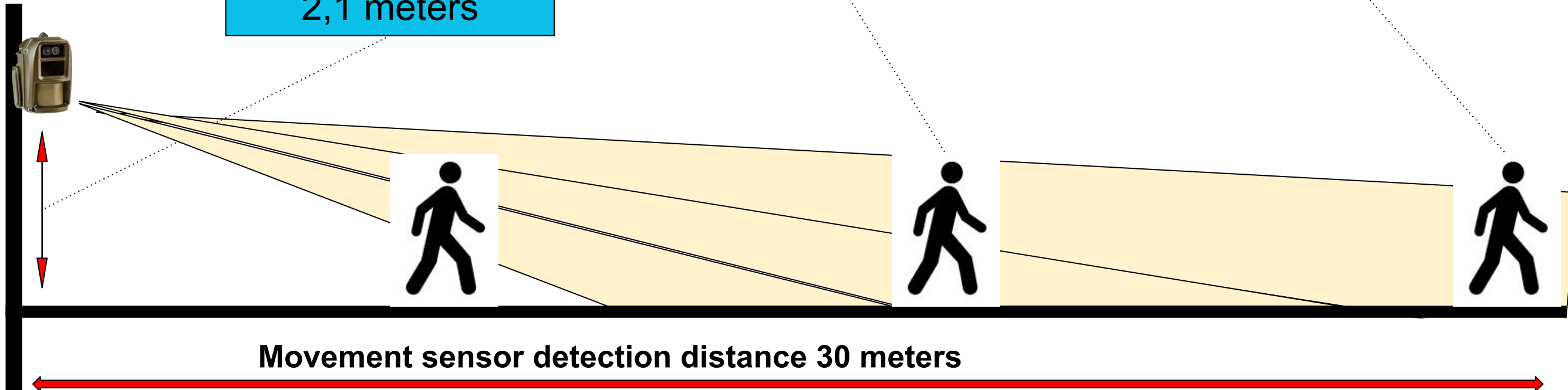
Detector tilt 12 degrees down if flat ground



20 meter meter zone coverage in case of correct installation angle

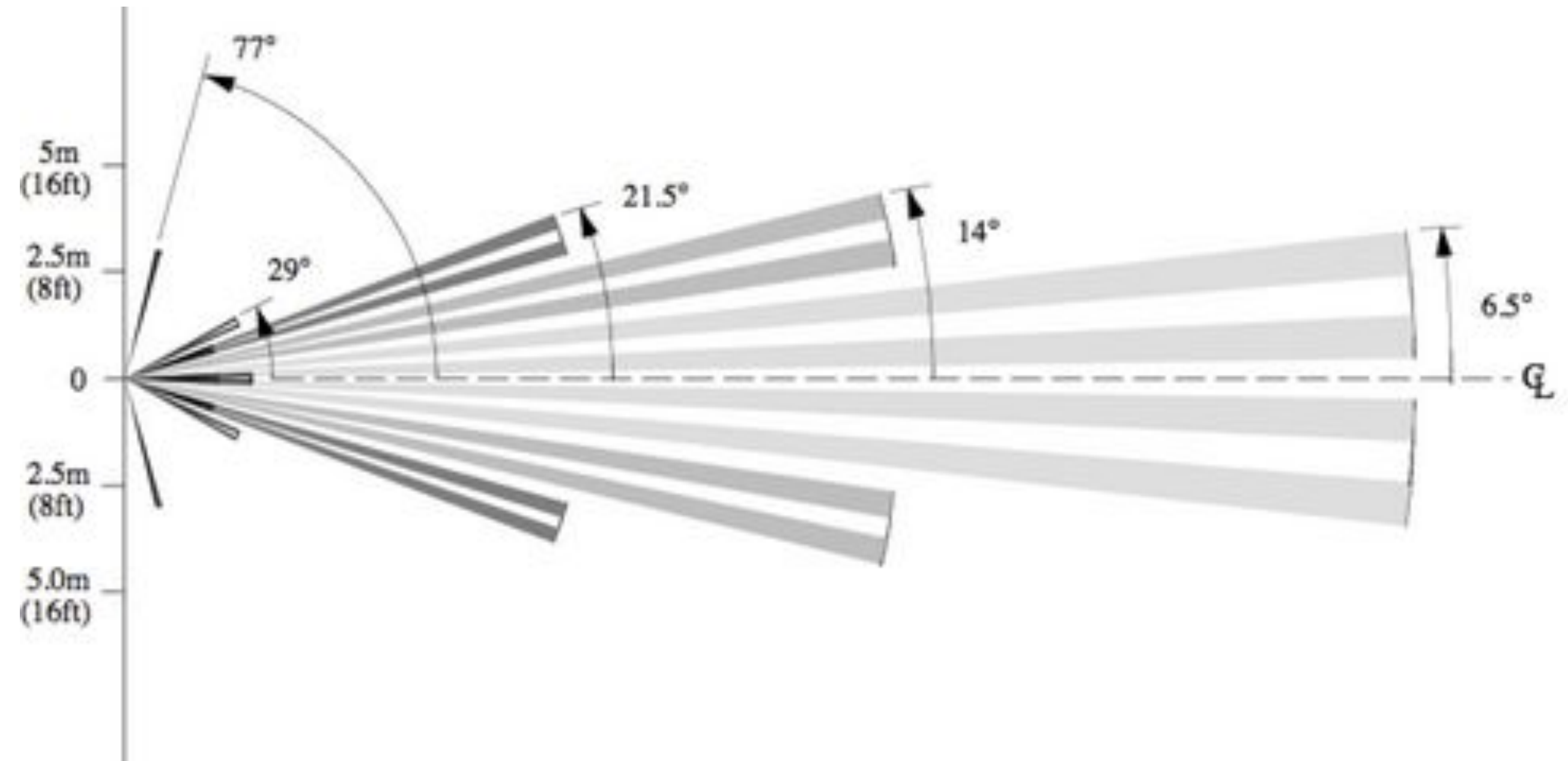
30 meter zone coverage in case of correct installation angle

Default installation height 2,1 meters



Detector PIR sensor coverage zones.

DETECTION AREA



Detector *PIR* sensor coverage, view from above

CORRECT INSTALLATION



CORRECT INSTALLATION



CORRECT INSTALLATION



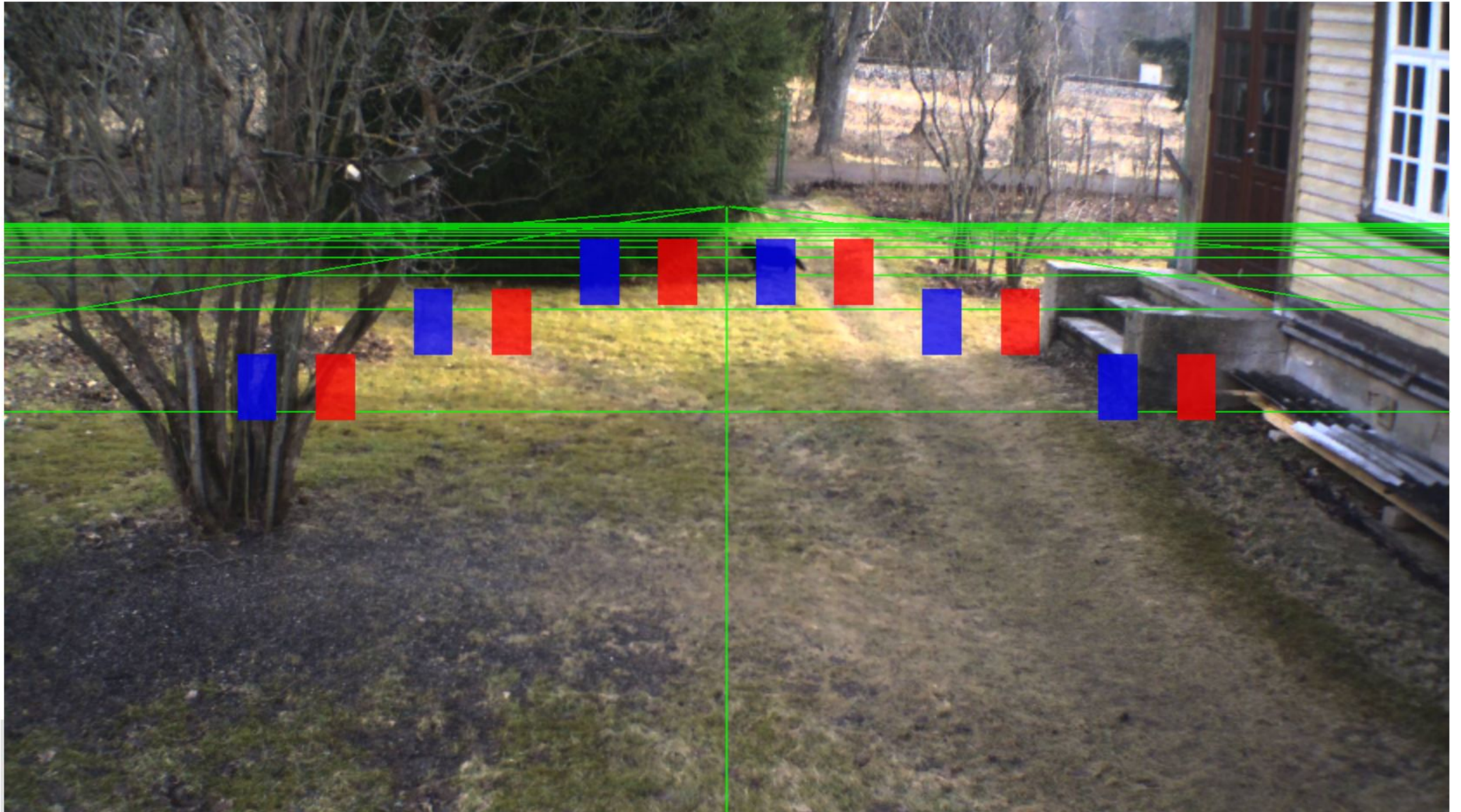
CORRECT INSTALLATION



CORRECT INSTALLATION



CORRECT INSTALLATION



DAY PHOTO: PIR zones on day photo

INCORRECT INSTALLATION



BRANCHES TOO CLOSE TO THE DETECTOR.

INCORRECT INSTALLATION



NIGHT PHOTO: FLASH OVEREXPOSURE ON CLOSE OBJECTS

Don't put large objects in front of detectors closer than 3-5 meters, it may impact detector and AI performance.

POST INSTALLATION CHANGES IN VIEW



**NIGHT PHOTO: FLASH
OVEREXPOSURE ON
CLOSE OBJECTS**

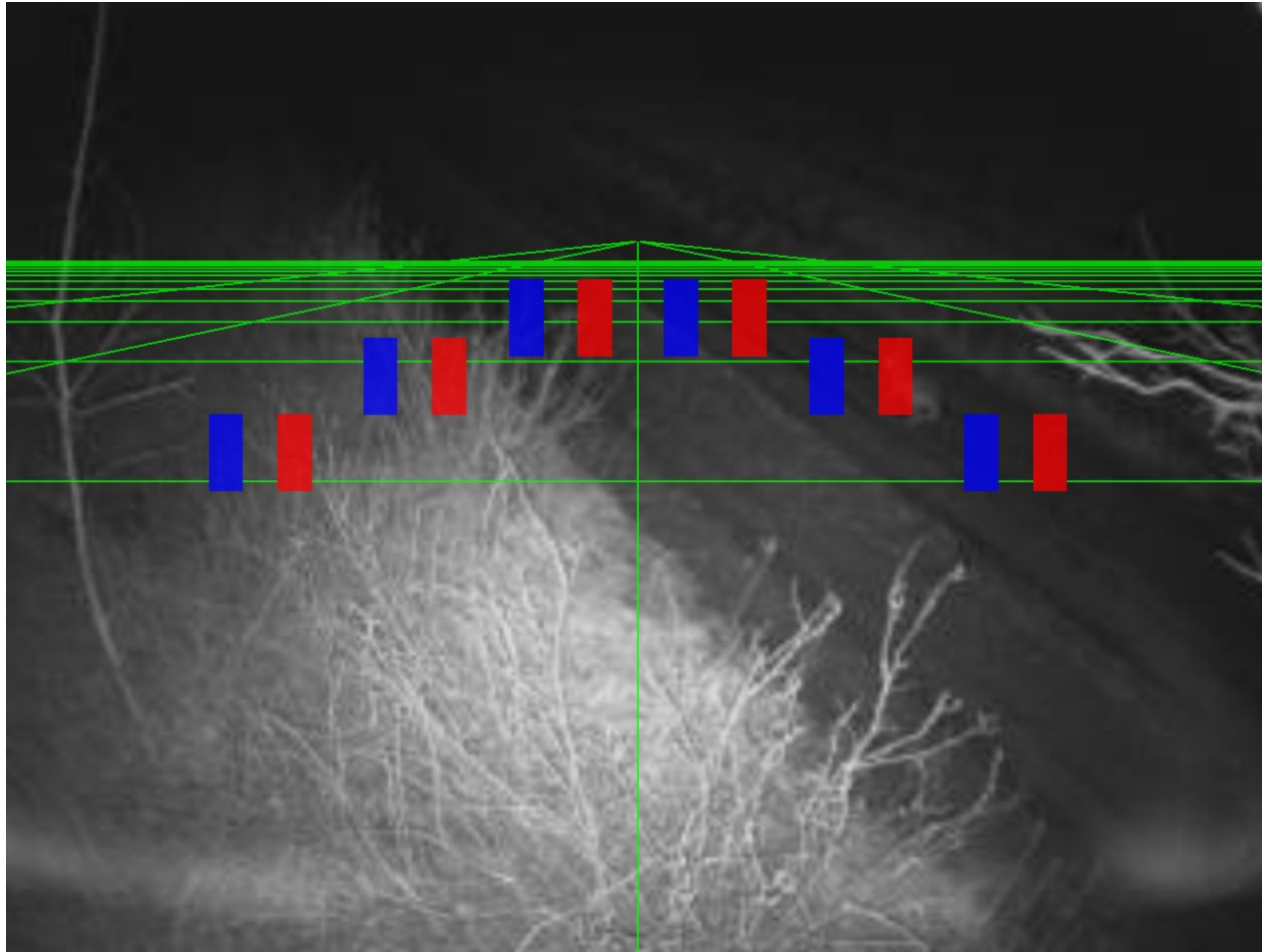
**IF LARGE ITEMS SUCH AS
MACHINERY , SKIPS ETC ARE
PLACED DIRECTLY IN FRONT
OF DETECTORS AT SHORT
RANGE **AFTER** INSTALLATION
THIS CAN LEAD TO HIGH
LEVELS OF REFLECTION AT
NIGHTTIME AND PARTIAL
VISIBILITY OF 'ACTORS'.**

**THIS CAN IMPACT THE ABILITY
OF THE AI TO RECOGNISE
PEOPLE AND VEHICLES AND
MAY MEAN MISSED ALARMS.**

**IF HAPPENS ON-SITE WARN
YOUR CLIENT !!!**

BE AWARE – POST INSTALLATION ISSUE

INCORRECT INSTALLATION



NIGHT PHOTO: PIR zones on night photo



Thank you!