



Notices

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Contact

Quanergy Systems, Inc.
433 Lakeside Drive
Sunnyvale, CA 94085
<https://quanergy.com/>

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Introduction

Quanergy laser scanning family was created in and is to be operated in Autodesk® Revit®. The 3D model elements are parametric and easy for Revit users to interact with.

Revit Version

This family is developed using Revit® 2019 and can be upgraded to the newest versions.

Family Types

In this guide, you will find the MQ-8 sensor Revit family with types associated with 4 mounting methods.

1. Default – sensor no mount
2. Wall-mount – sensor with wall-mount bracket
3. Pole-mount – sensor with wall-mount bracket and pole-mount assembly
4. Tripod-mount – sensor with wall-mount bracket and generic tripod. The tripod is a generic Revit family and can be replaced with any other tripod.



Figure 1. Sensor with no mount

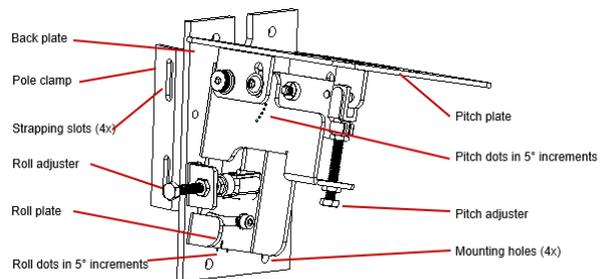


Figure 2. Wall-mount bracket

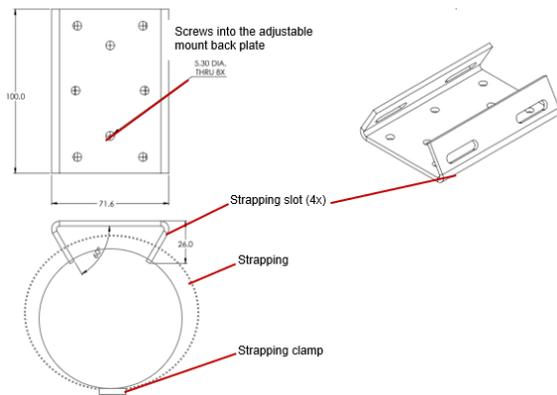


Figure 4. Pole mount assembly

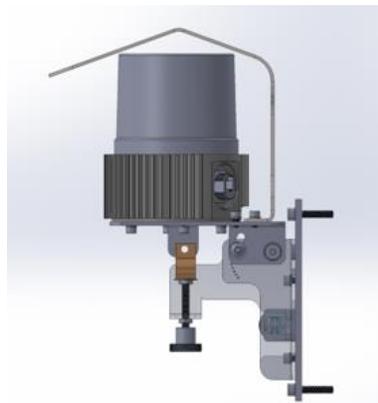
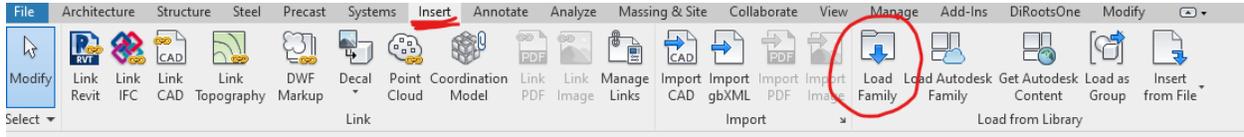


Figure 3 Weather shield accessory

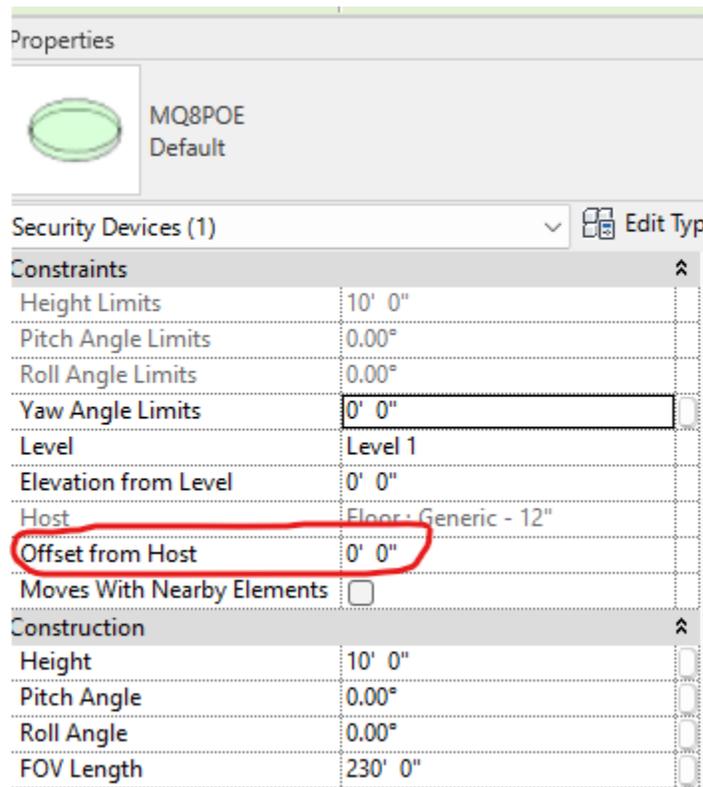
Load Family into Project

To load all the types or just specific ones desired on the project, you will need to LOAD FAMILY and select the folder containing the downloaded family file (RFA).



Instance Hosting

The family is work plane-based, and is typically hosted on the same plane as the top of floor. It is recommended to place instances in the project using a floor plan prior to moving the instance to a desired location. Pay attention that the 'Elevation from Level' parameter offsets the base of the sensor.



Family Parameters

The family behavior in the project can be controlled by Instance and Type parameters.

Instance Parameters

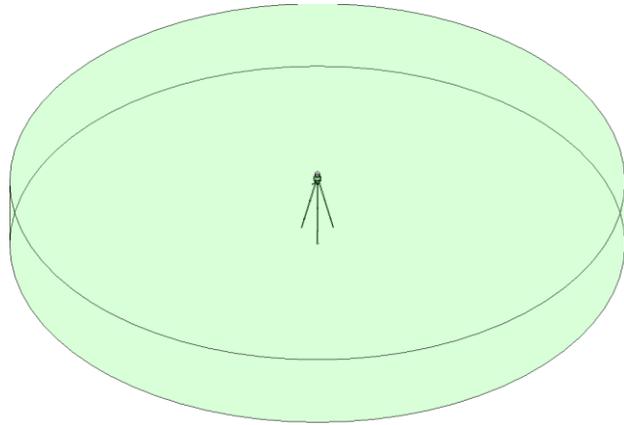
Properties	
	MQ8POE Default
Security Devices (1) Edit Type	
Constraints	
Height Limits	10' 0"
Pitch Angle Limits	0.00°
Roll Angle Limits	0.00°
Yaw Angle Limits	0' 0"
Level	Level 1
Elevation from Level	0' 0"
Host	Floor : Generic - 12"
Offset from Host	0' 0"
Moves With Nearby Elements	<input type="checkbox"/>
Construction	
Height	10' 0"
Pitch Angle	0.00°
Roll Angle	0.00°
FOV Length	230' 0"
Yaw Angle	0.00°
Graphics	
FOV Visibility	<input checked="" type="checkbox"/>
Electrical - Loads	
Dimensions	
FOV Angle	360.00°

Parameter		Notes
Height	Determines the height of the sensor relative to the level.	
Pitch Angle	Determines the angle of movement around the pitch axis.	Angles noted are for graphic adjustments in Revit and imply system requirements. Installer shall make real-world adjustments for system to align with graphical intent.
Roll Angle	Determines the angle of movement around the roll axis.	
Yaw Angle	Determines the angle of movement around the yaw axis. This is recommended to be adjusted at corner installations.	
FOV Length	Determines beam length. Default values are set to the maximum length.	
FOV Visibility	Turns field-of-view beam coverage on or off.	
FOV Angle	Determines field-of-view coverage. Default values are set to 360 degrees. At corners, this is recommended to be set to 270.	This is intended to be used for designers to locate adequate sensors. After identifying required monitoring zones, it is recommended to reduce coverage lengths in locations where architectural clashes exist.

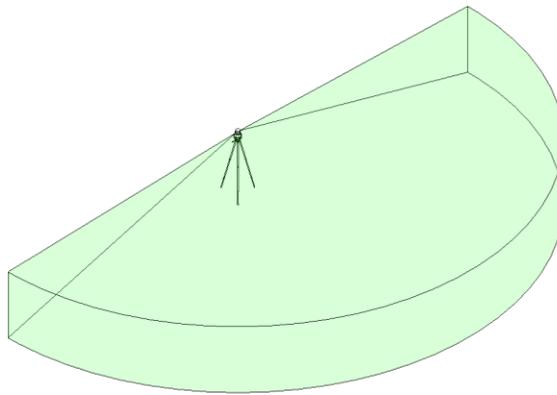


Field-of-View (FOV)

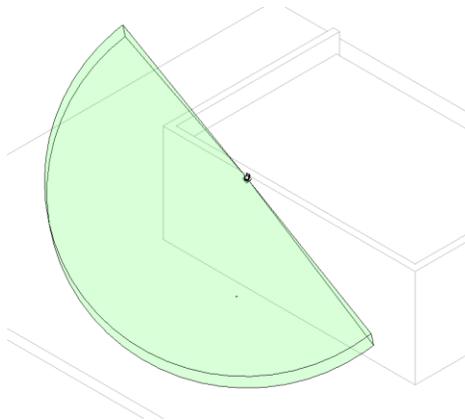
The FOV can be activated by Instance and adjusted the desired range according to the model specifications.



Example: 360-degree FOV



Example: 180-degree FOV



Example: 180-degree FOV with roll and pitch angles.

Type Parameters

Type Properties

Family: MQ8POE Load...

Type: Default Duplicate... Rename...

Type Parameters

Parameter	Value
Constraints	
Default Elevation	0° 0"
Graphics	
Front Arrow	<input checked="" type="checkbox"/>
Pole Mount	<input type="checkbox"/>
Rain Hood	<input type="checkbox"/>
Tripod	<input type="checkbox"/>
Wall Support	<input type="checkbox"/>
Identity Data	
Type Image	
Keynote	
Model	MQ8POE
Manufacturer	QUANERGY
Type Comments	
URL	https://quanergy.com/products/
Description	
Assembly Code	
Cost	
Assembly Description	

[What do these properties do?](#)

<< Preview OK Cancel Apply

Parameter		Notes
Front Arrow	Determines front reference.	Angle noted is for noting the front face of the sensor, so that when mounting methods are turned on and off, the mounting angle does not need to change.
Pole Mount	Determines visibility for pole mounting accessories for pole-mounted installations. Wall support must be turned on.	Default settings is for all to be turned off. This is default set up. For ceiling installations, place devices on a reflected ceiling plan in Revit.
Rain Hood	Determines visibility for optional rain hood. Wall support must be turned on.	
Tripod	Determines visibility for tripod. Tripods turned on will affect camera height and bring camera to height of tripod.	
Wall Support	Determines visibility for wall support for wall-mounted installations.	
Model	Model number	
URL	Link to product page	