



How to make a Black Plate Sensor

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| Page number | Content |
|-------------|--------------------------------|
| 4 | Introduction |
| 5 - 6 | Part list |
| 7 – 8 | Product impressions |
| 9 - 16 | Construction of components |
| 17 – 21 | Assembly of Black plate sensor |

| Symbol | Explanation |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|
|  | Construction done by yourself |
| 2* | Required amount |
|  | Delivered by Priva |
|  | Materials from parts lists you need to source locally |

The black plate temperature sensor allows you to measure the temperature with the effects of sunlight, air temperature and wind. This measurement more closely represents the exposed temperature of the plants. When the retractable roof control is installed on your Priva process computer, this will give you an extra measurement to control the opening and closing of your retractable greenhouse.


The black plate temperature sensor consists of a black plate, a Priva temperature sensor, a mounting profile and some fasteners. This manual describes the construction and installation of the black plate temperature sensor.

Commissioning of this sensor and other sensors are described in separate process computer installation manuals that are available in the Priva Support Portal. For information on viewing and using the measurement, please refer to the process computer user manuals.

Part list

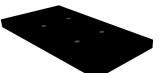












Materials delivered by Priva

| QTY | Description | Part Number | Picture |
|-----|--------------------|-------------|-----------------------------------------------------------------------------------|
| 1 | Temperature Sensor | 3779013 |  |



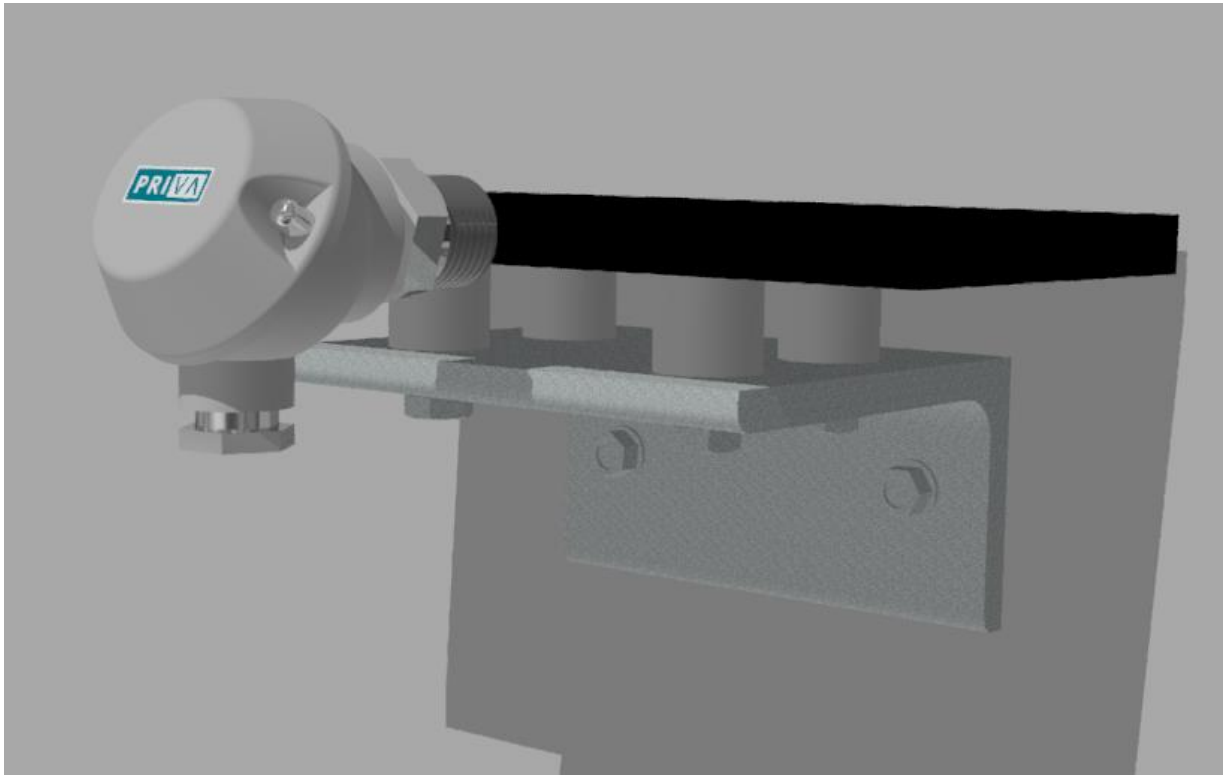
Materials to arrange by yourself

| QTY | Description | Material | Info | Picture |
|-----|----------------------------------------|----------|------------|--------------------------------------------------------------------------------------|
| 1 | Flat Plate 200x100x12 mm | Z/P | |  |
| 4 | M8x35 Hex Head set screw | Z/P | |  |
| 4 | M8 Washer | Z/P | |  |
| 4 | GRY pipe SCH 80 ND=15 mm | PVC-U | 90 mm long |  |
| 1 | Heat Sink Compound | | |  |
| 1 | Corner profile support bracket | Z/P | |  |
| 1 | Black spray paint for galvanized steel | | |  |
| 1 | Zinc galvinizing spray | | |  |
| 1 | M5x6 hex Head set screw | Z/P | |  |
| | Fasteners for mounting to wall | | |  |
| | Fasteners for mounting to pole | | |  |





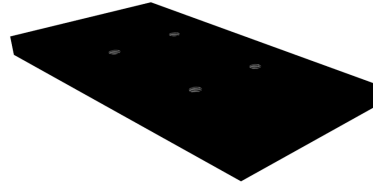
Black Plate Sensor



1*

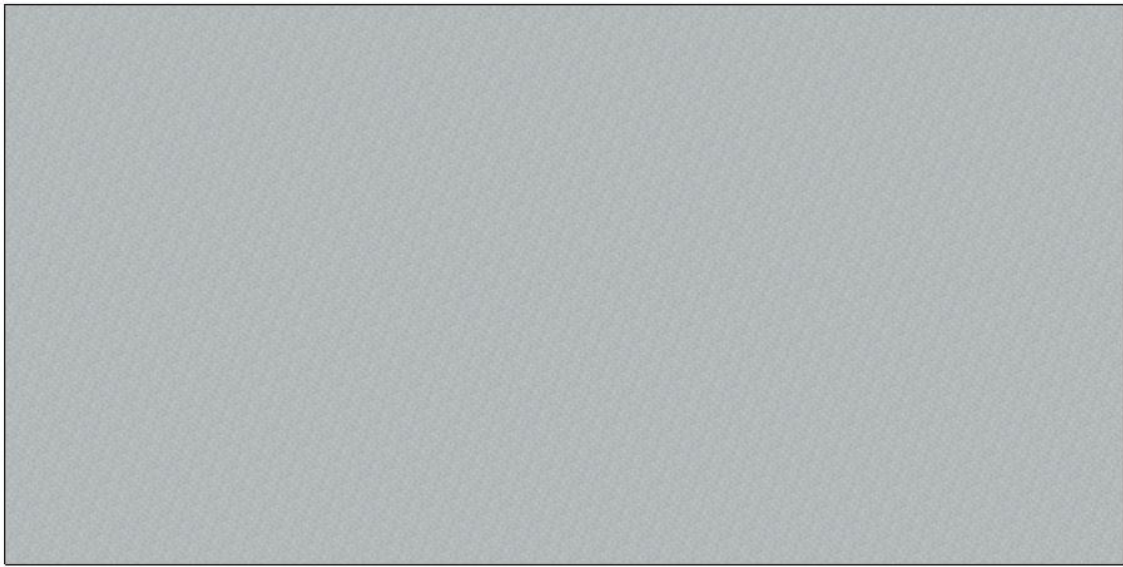


Black Plate



1. Buy Galvanized Plate 200x100x12 mm

200 mm



100 mm



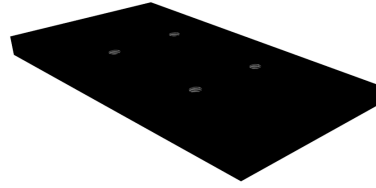
12 mm



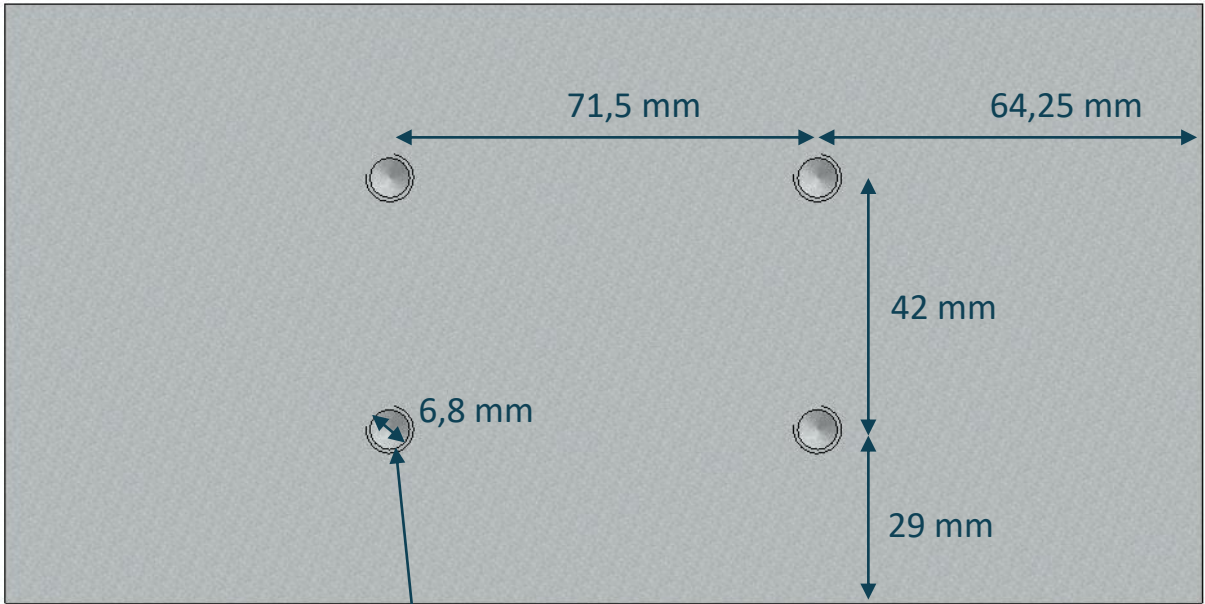
1*



Black Plate



2. Drill and Tap holes for M8



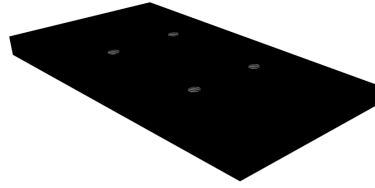
4x Drill hole with diameter 6,8 mm, 7 mm deep & Tap M8 thread, 5 mm deep



1*



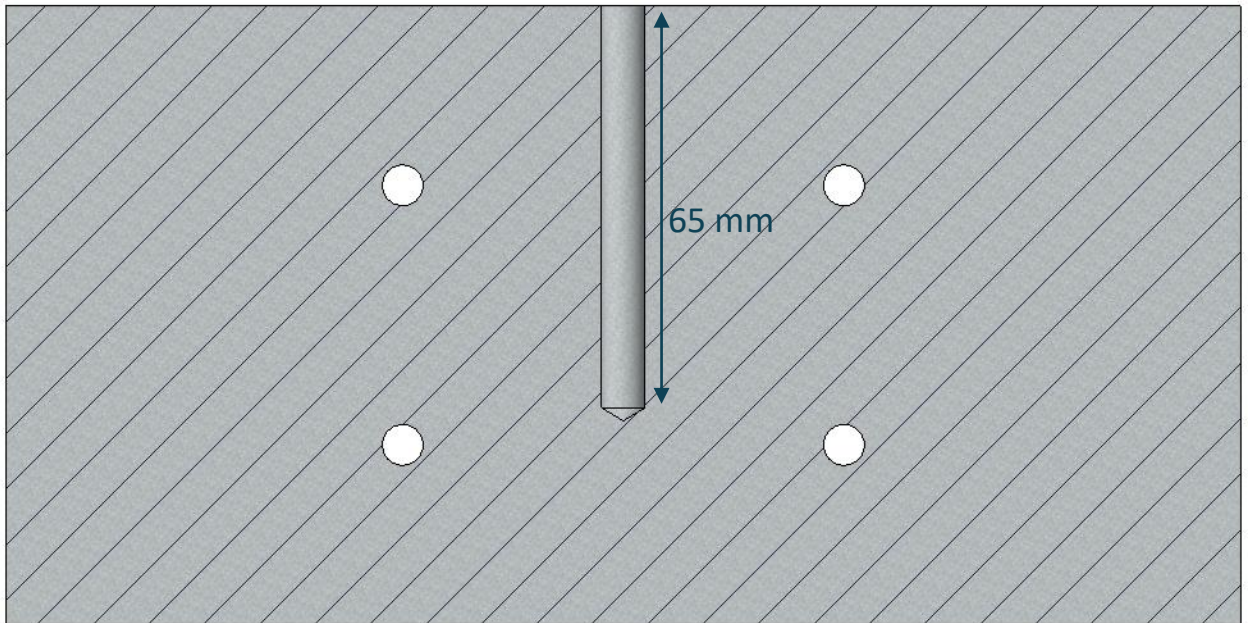
Black Plate



3. Drill hole for Temperature Sensor

Drill 65 mm deep hole with a diameter of 6.5 mm

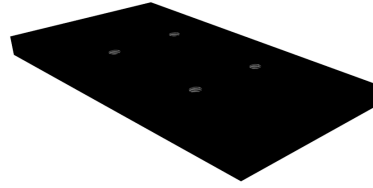
100 mm



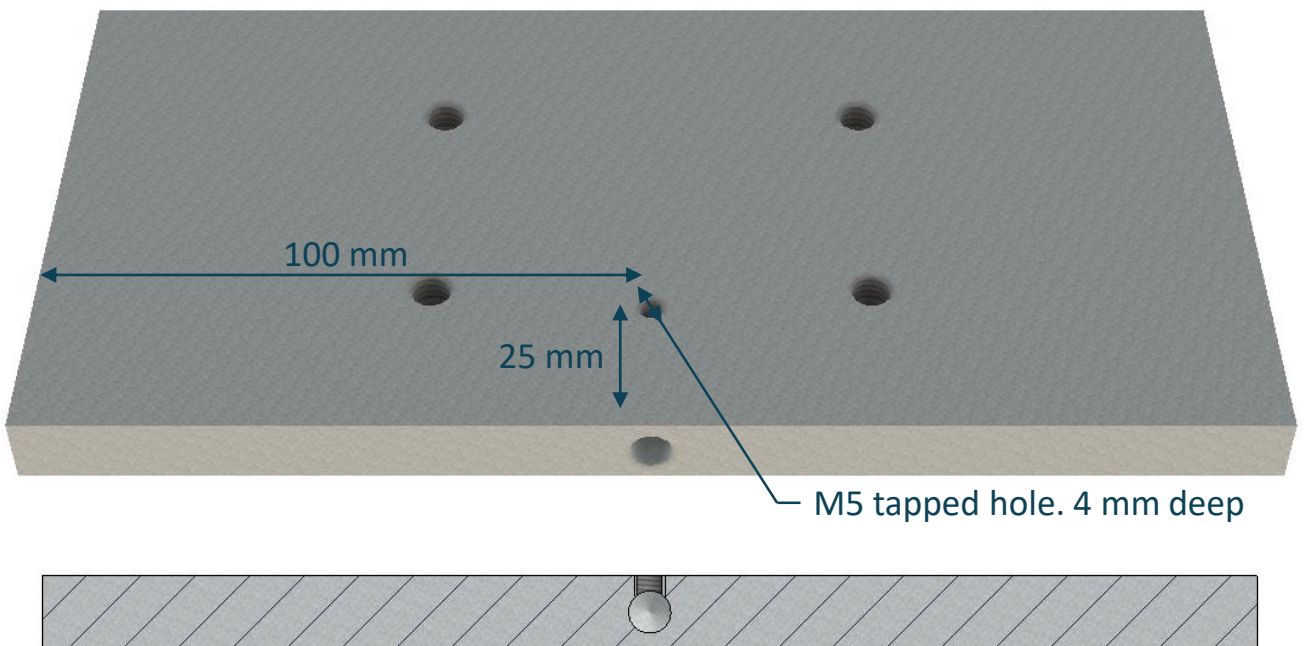
1*



Black Plate



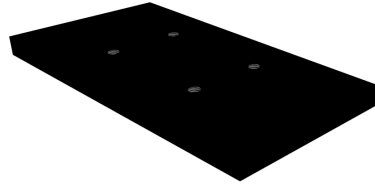
4. Drill & Tap M5 hole to keep in place temperature sensor



1*

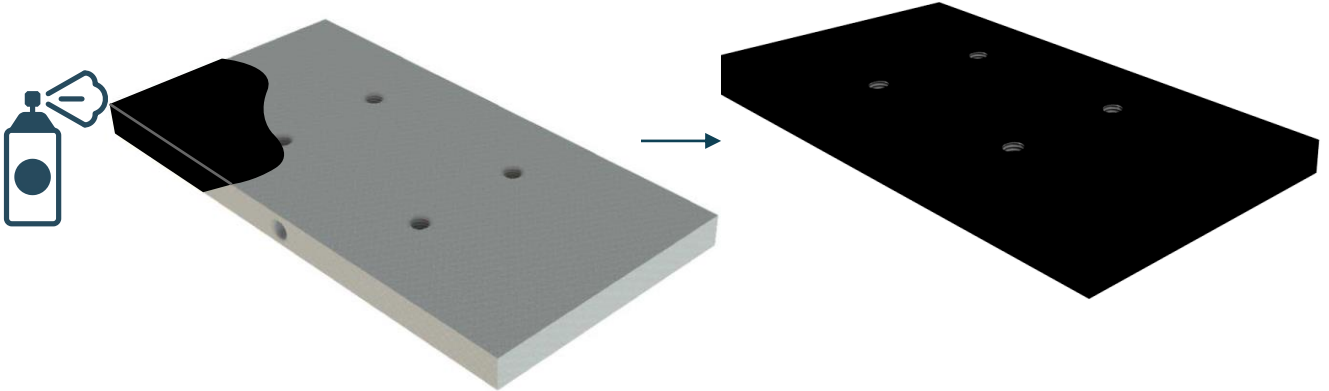


Black Plate



5. Spray paint black

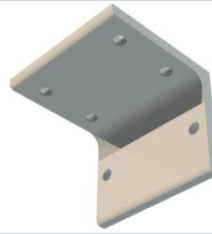
Use a Black spray paint suited for galvanized steel



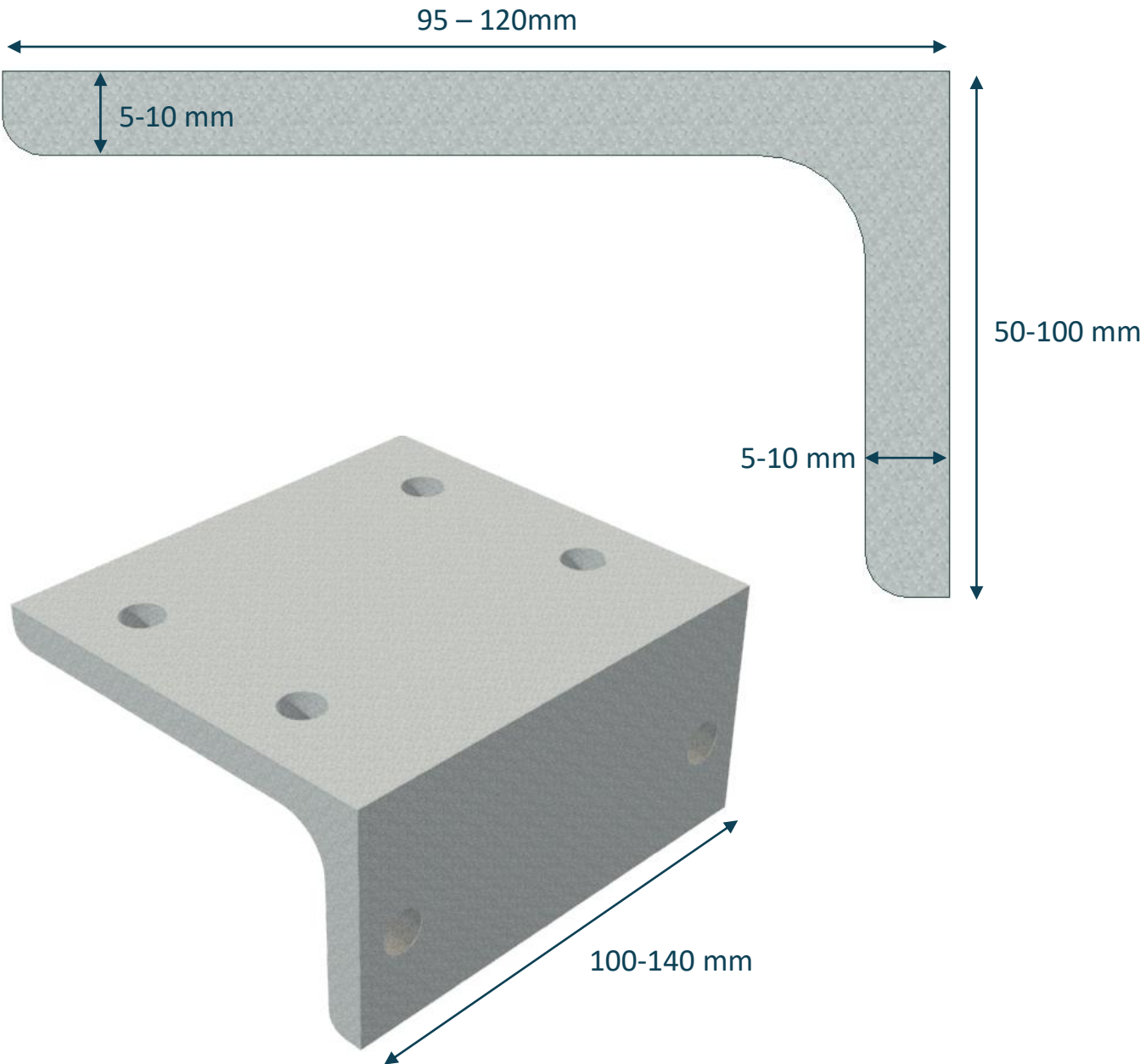
1*



Support Bracket



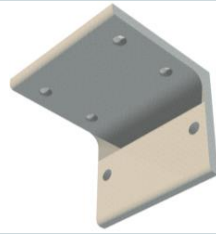
- 1. Buy corner profile**
Use the size which is available for you



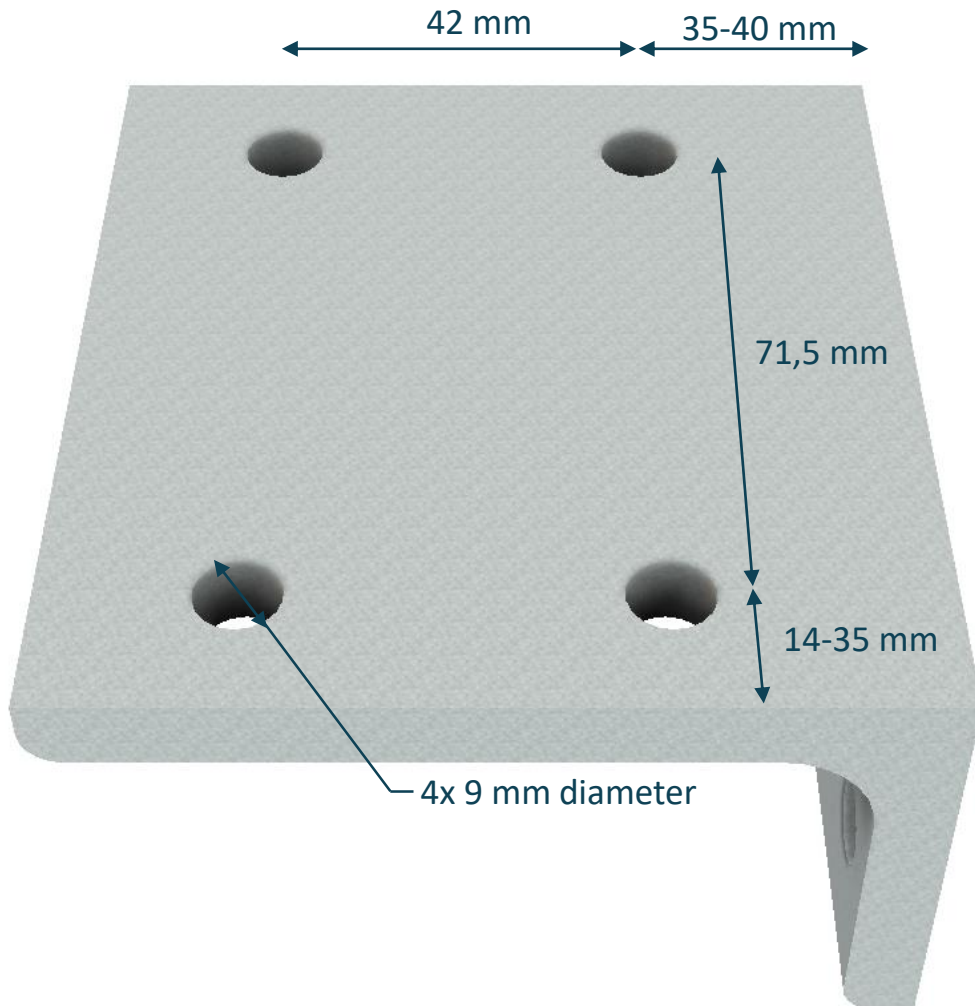
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Support Bracket



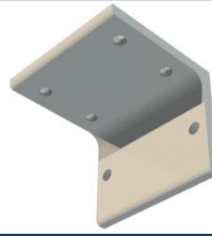
2. Drill 4 holes at the top



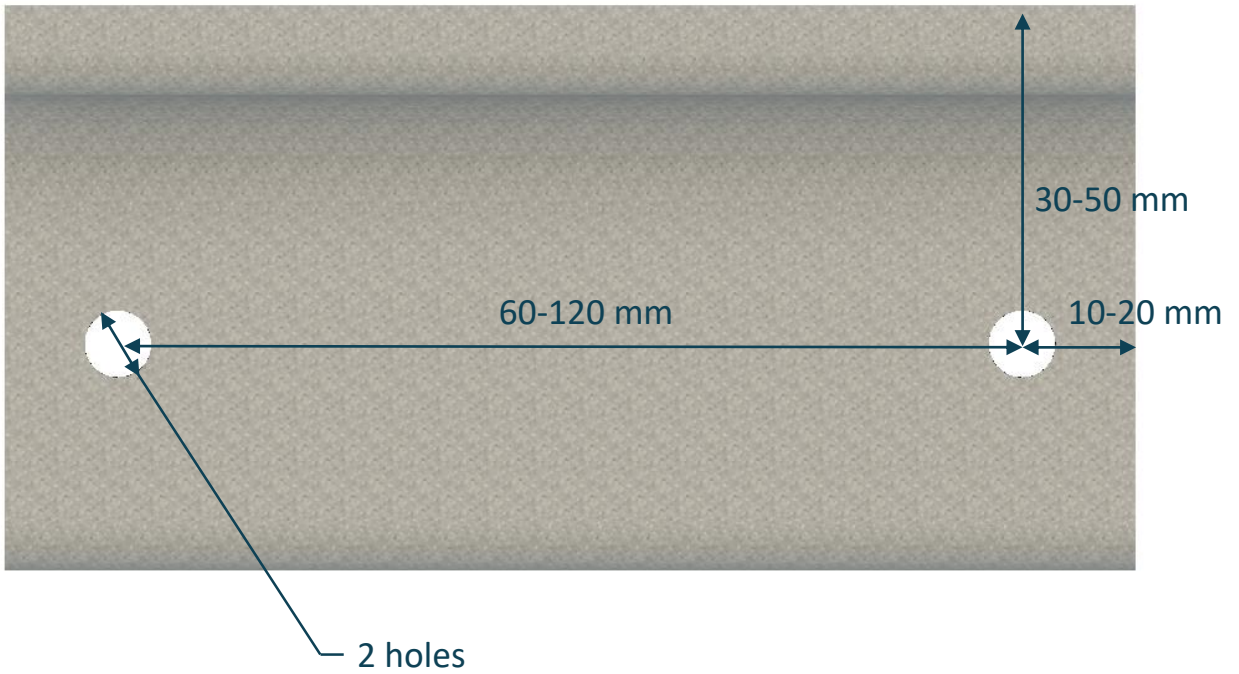
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Support Bracket



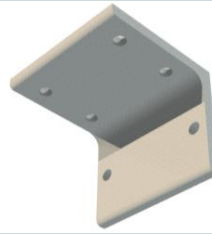
3. Drill 2 holes at the front Depending on your mounting type



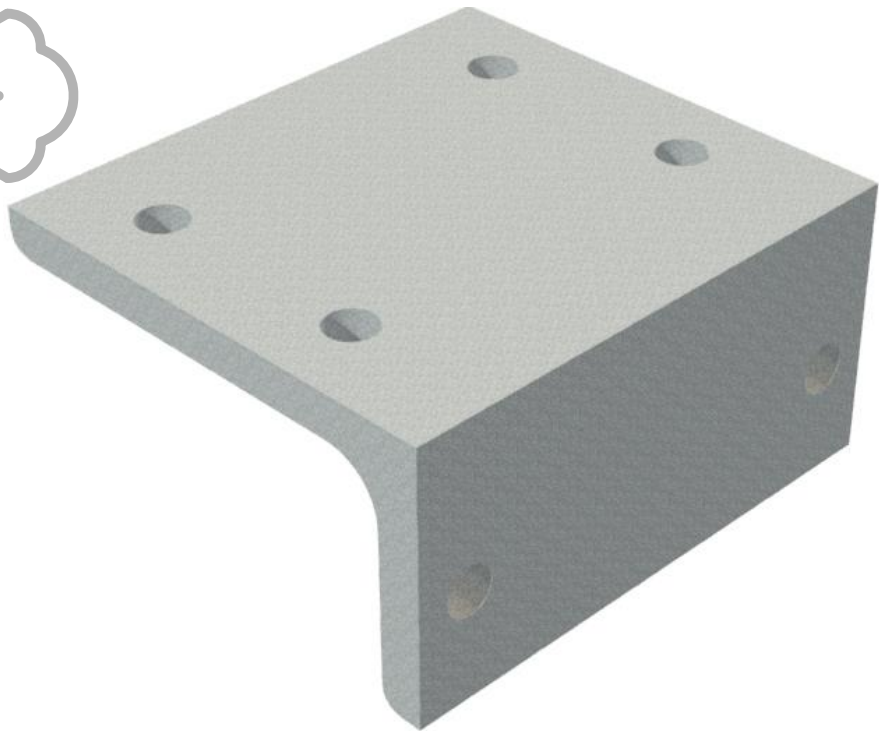
1*



Support Bracket



4. Spray holes with Zinc galvanizing spray



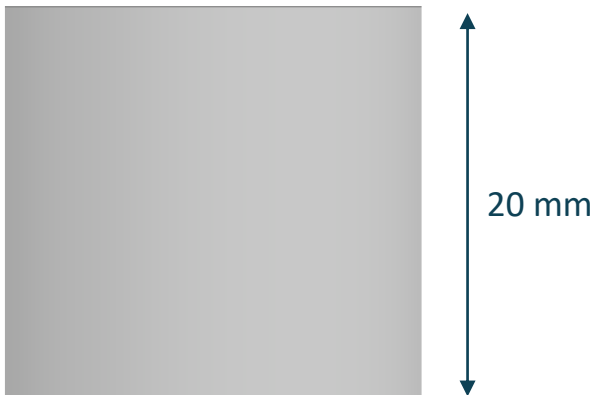
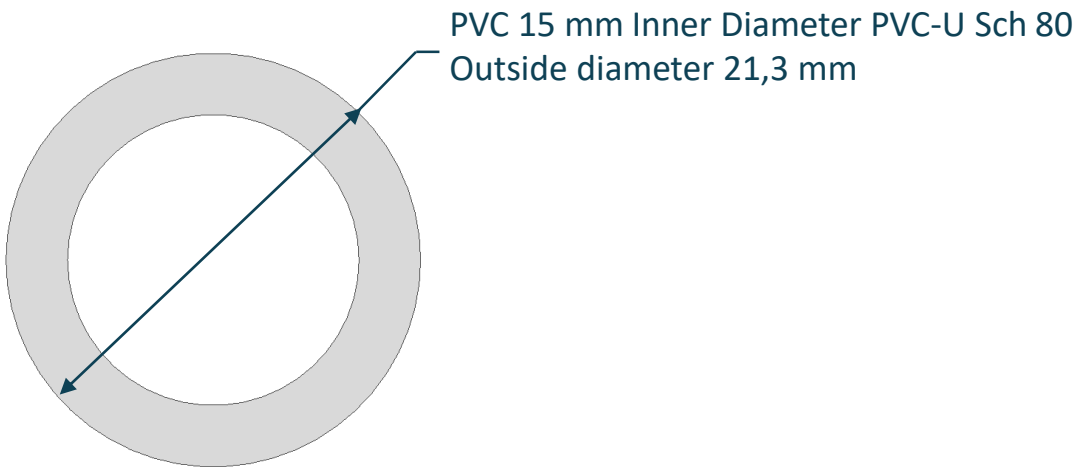
4*



PVC distance bush



1. Cut PVC pipe to 20 mm (4x)

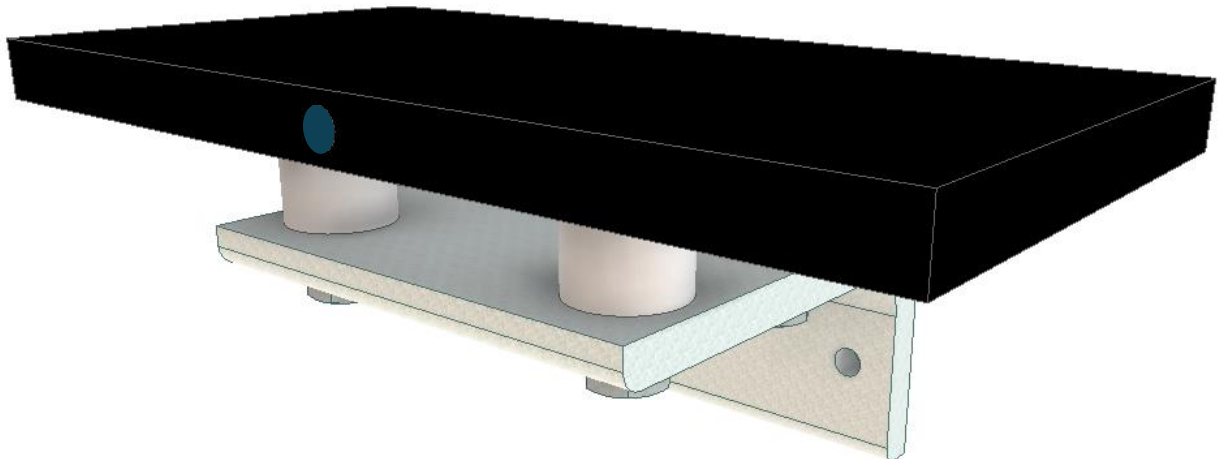
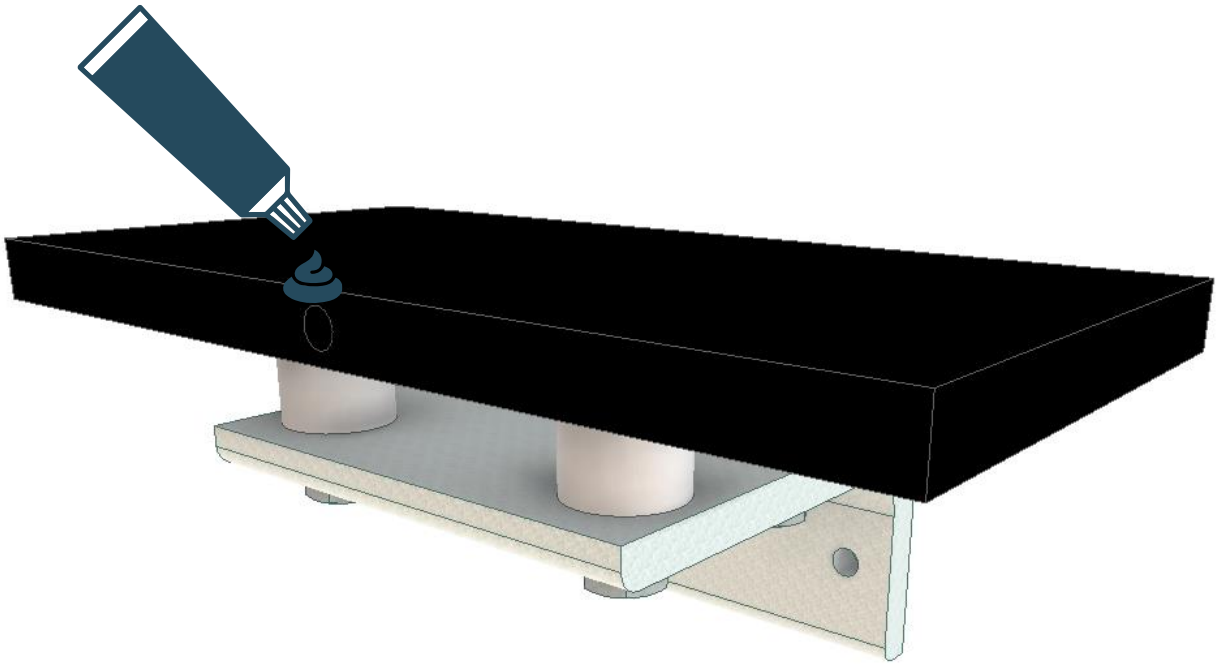




Assembling



- 1.** Heat sink compound in hole for temperature sensor

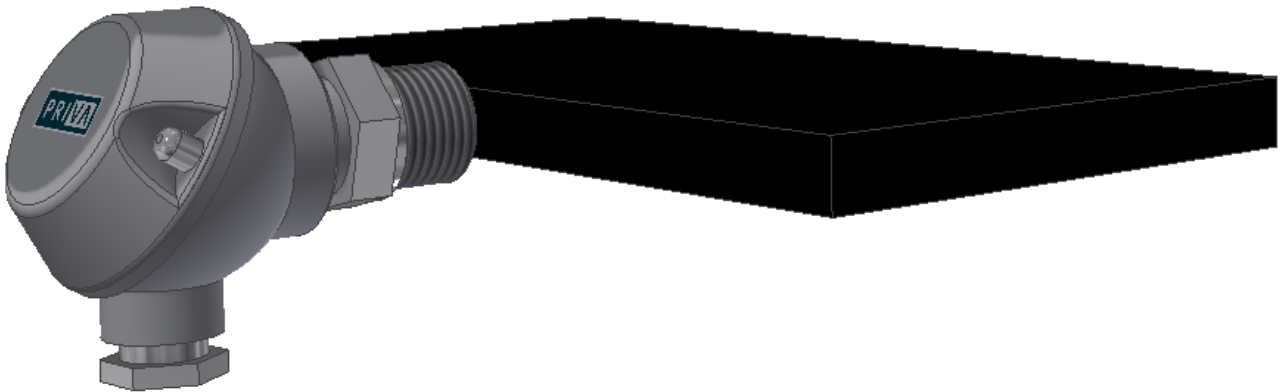
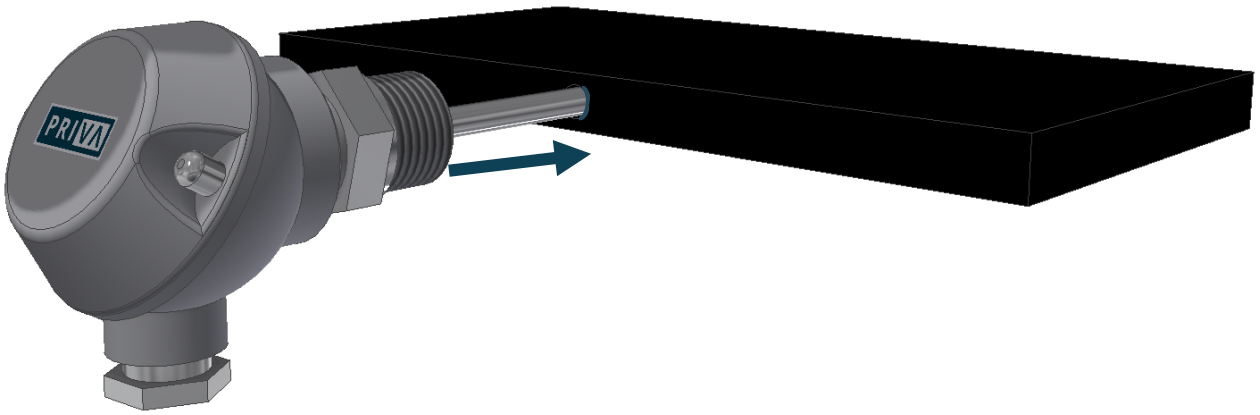




Assembling

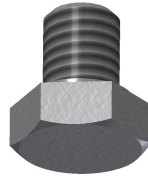


2. Place temperature sensor in Hole





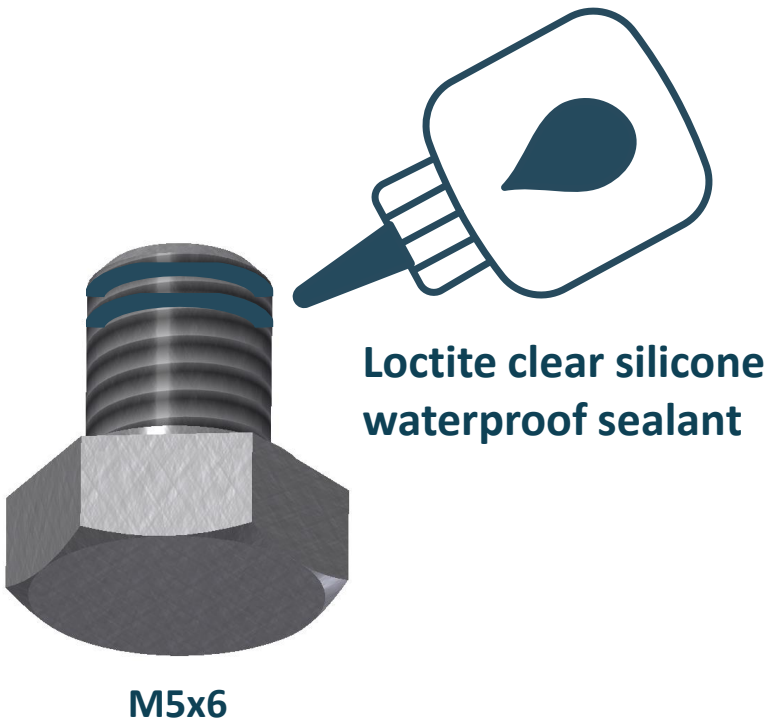
Assembling



CREATING
A CLIMATE
FOR GROWTH

PRIVA

- 3.** Place Loctite clear silicone waterproof sealant on the m5x6 screw

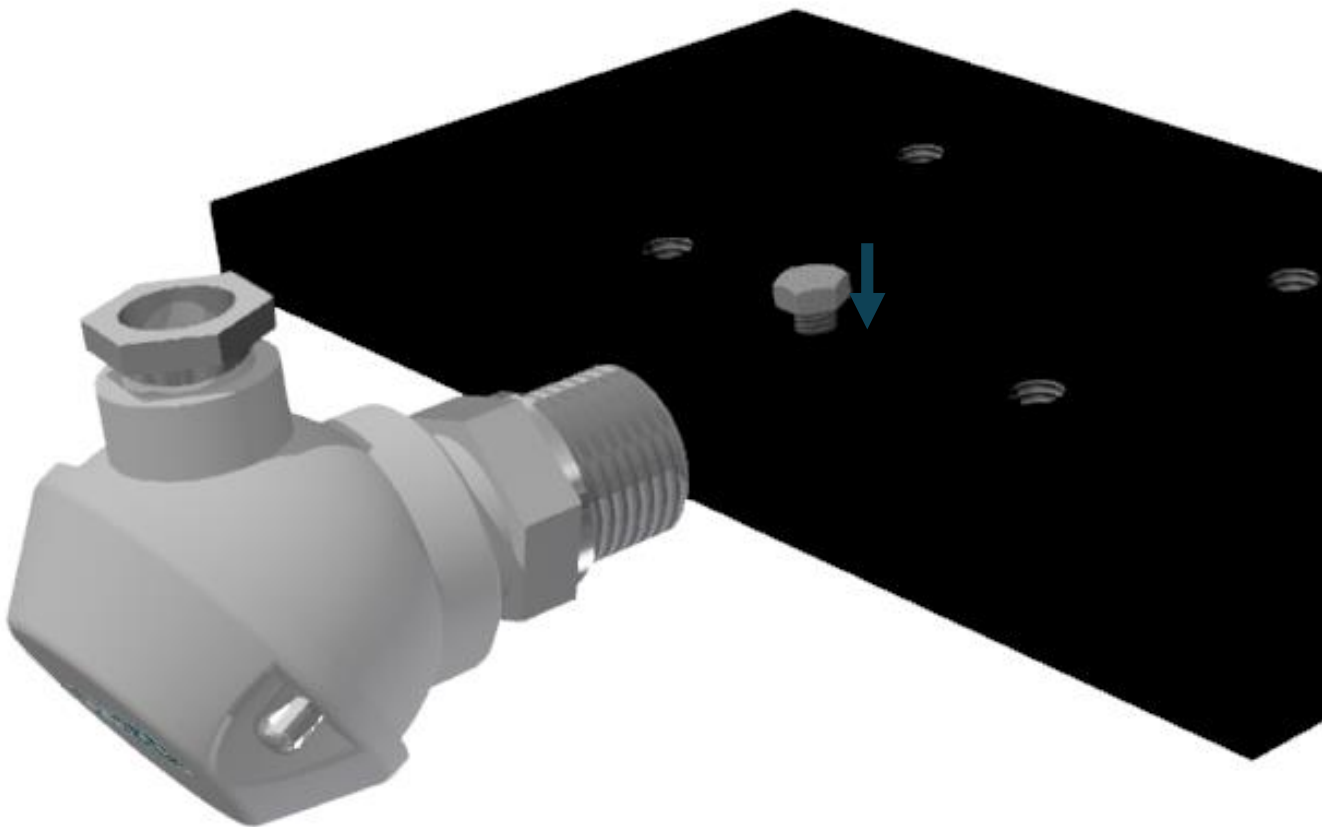




Assembling



4. Tighten m5 bolt to keep Temperature sensor in place

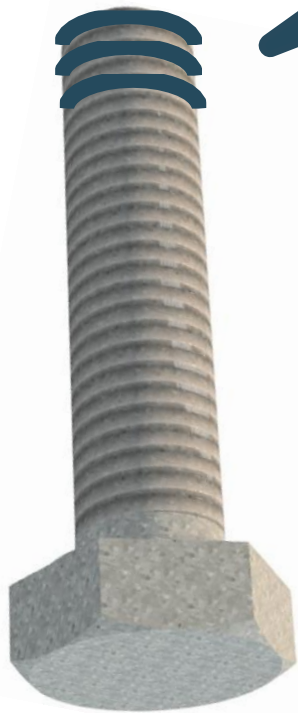




Assembling



- 5.** Place Loctite clear silicone waterproof sealant on the m8x35 screw



M8x35

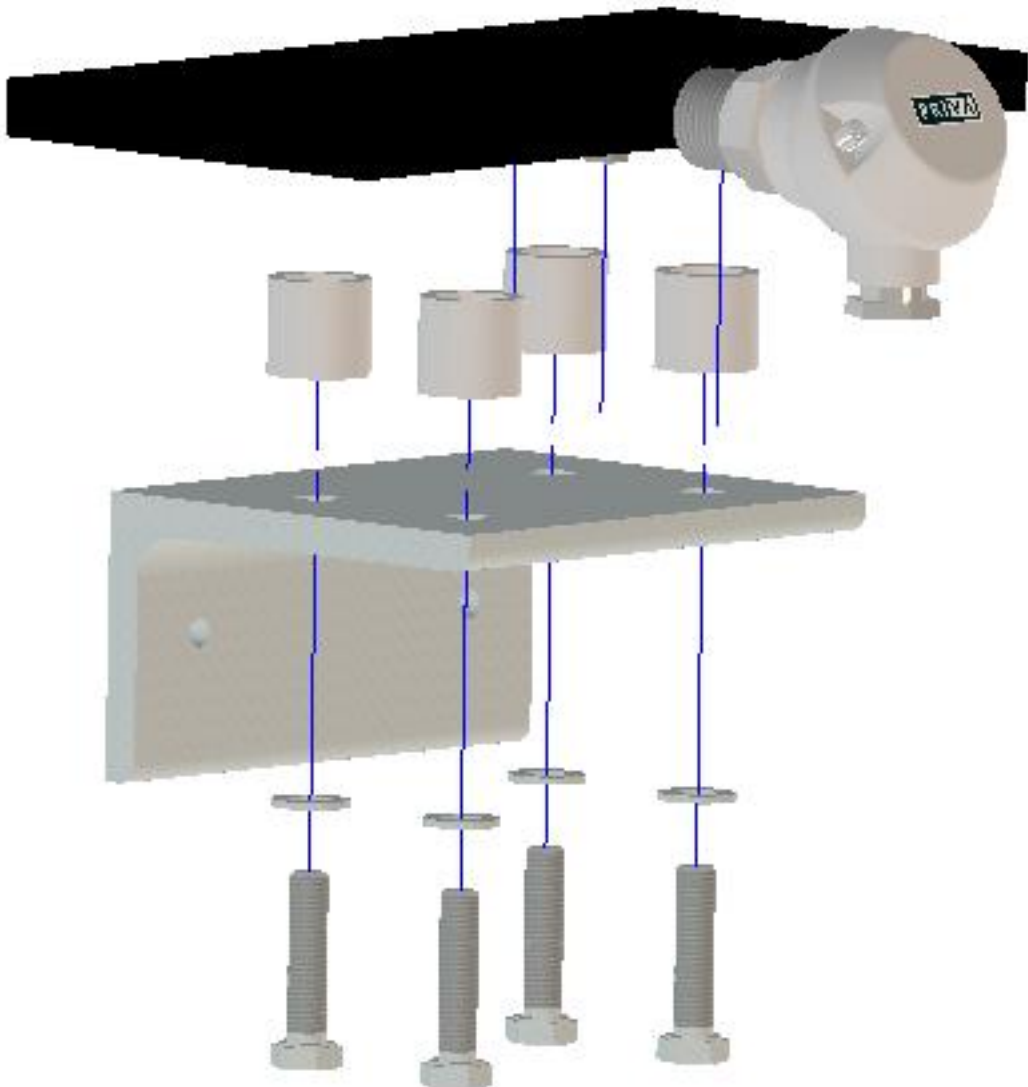
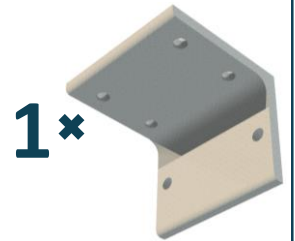
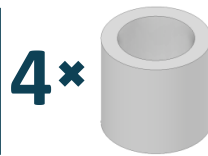


**Loctite clear silicone
waterproof sealant**



Assembling

6. Mount Plate to Bracket

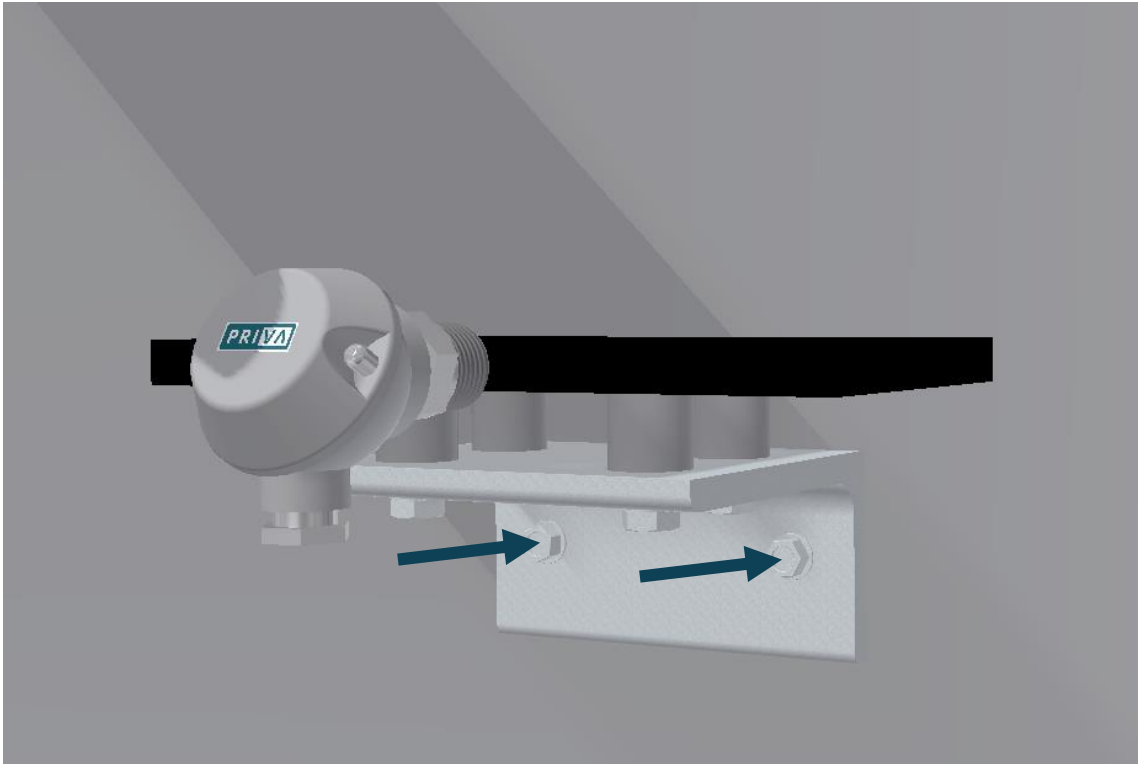




Assembling



7a. OPTION 1 - Mount the sensor to a wall





Assembling



7b. OPTION 2 - Mount the sensor to a pole

