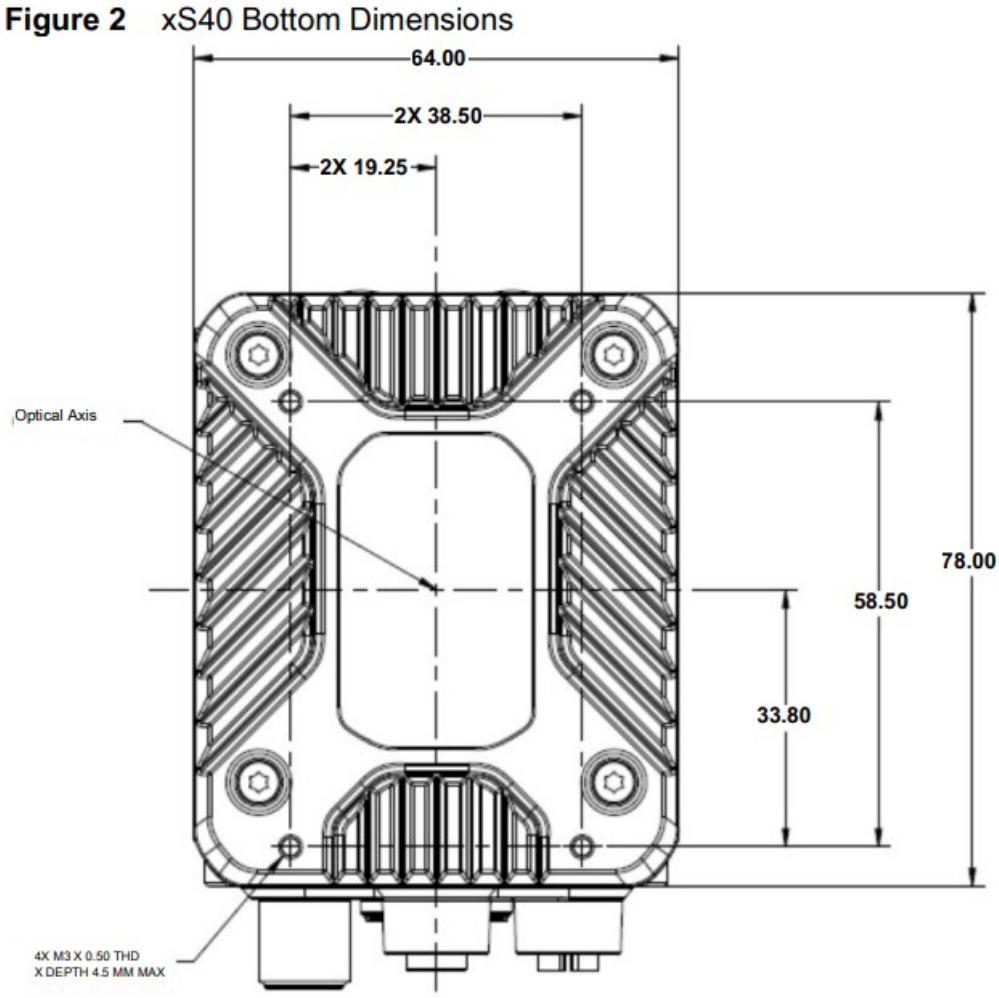
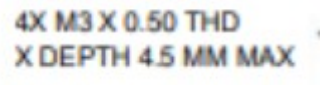
Multi Camera mount (3 cameras 1 Clamp)

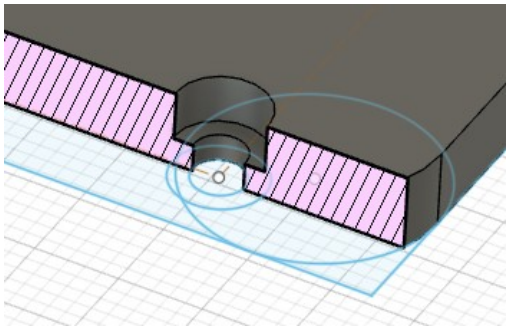
Back Side camera bracket



Mounting screws



I set the base thickness to 5 mm, but I hide the screw head under the surface so I can use M3 x 6 mm. The anchor thickness is now 1.8 mm



Multi Camera mount 3.0 (3 cameras 1 Clamp)

Improvements:

- Rounded mounting plates improvements (8 mm radius instead of 10)
- Quick disconnect fastner / screw that can be operated without tools
- Embossed screws head for the camera plate.

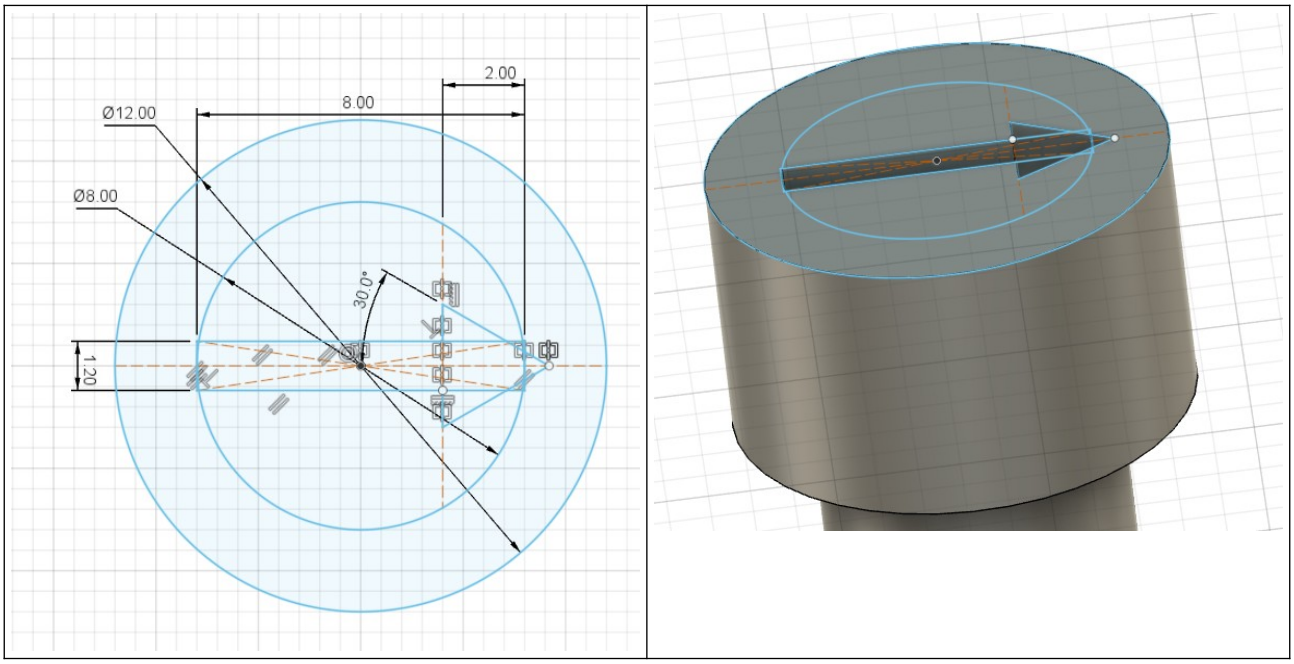
Mounting Screw

Screw Head

Head Size: 12 mm diameter

Head Height: 7 mm to maximize the usability with bare hands

The arrow is oriented as the locking pin



Screw barrel

8 mm diameter

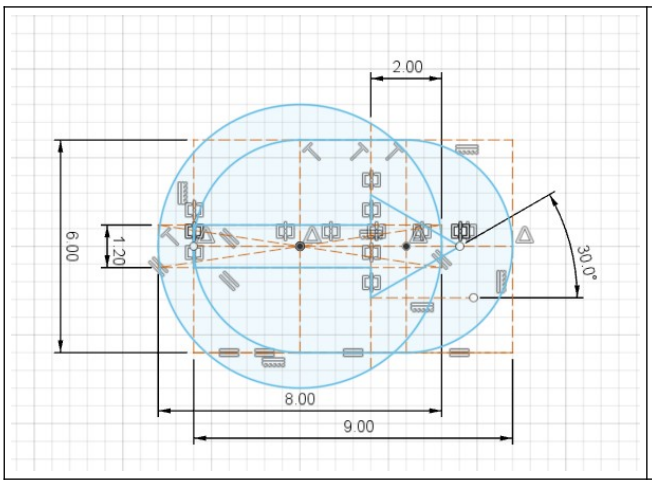
21 mm high

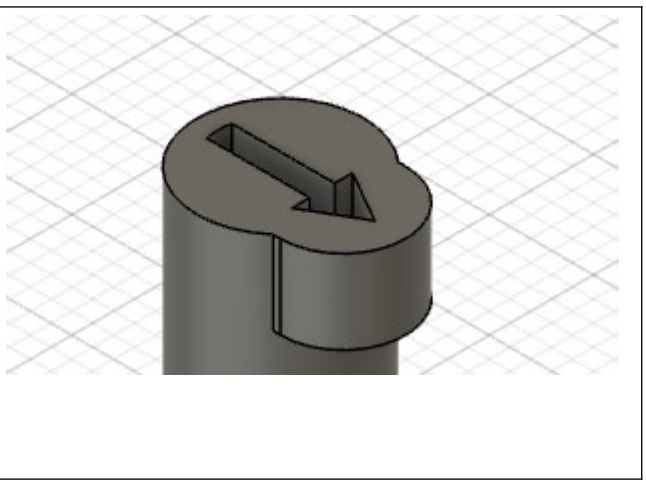
Screw locking pin

The end of the screw is used to lock the screw in place

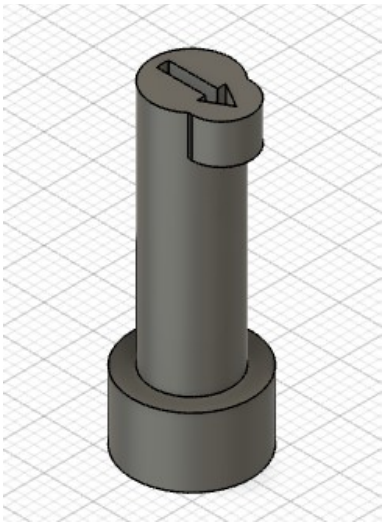
It is just 2 mm bigger than the barrel

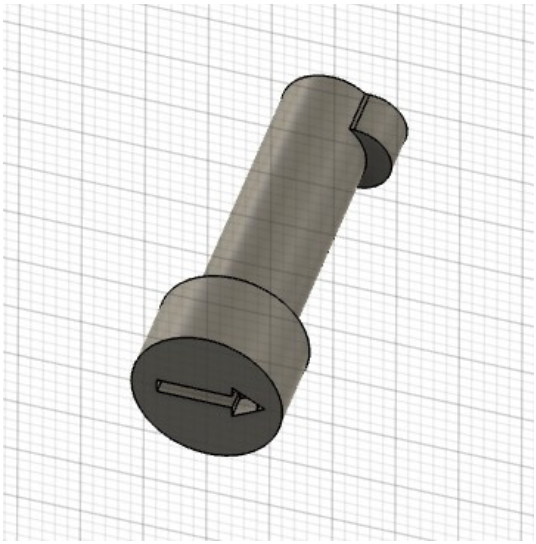
The arrow is aligned to the one on the screw head.





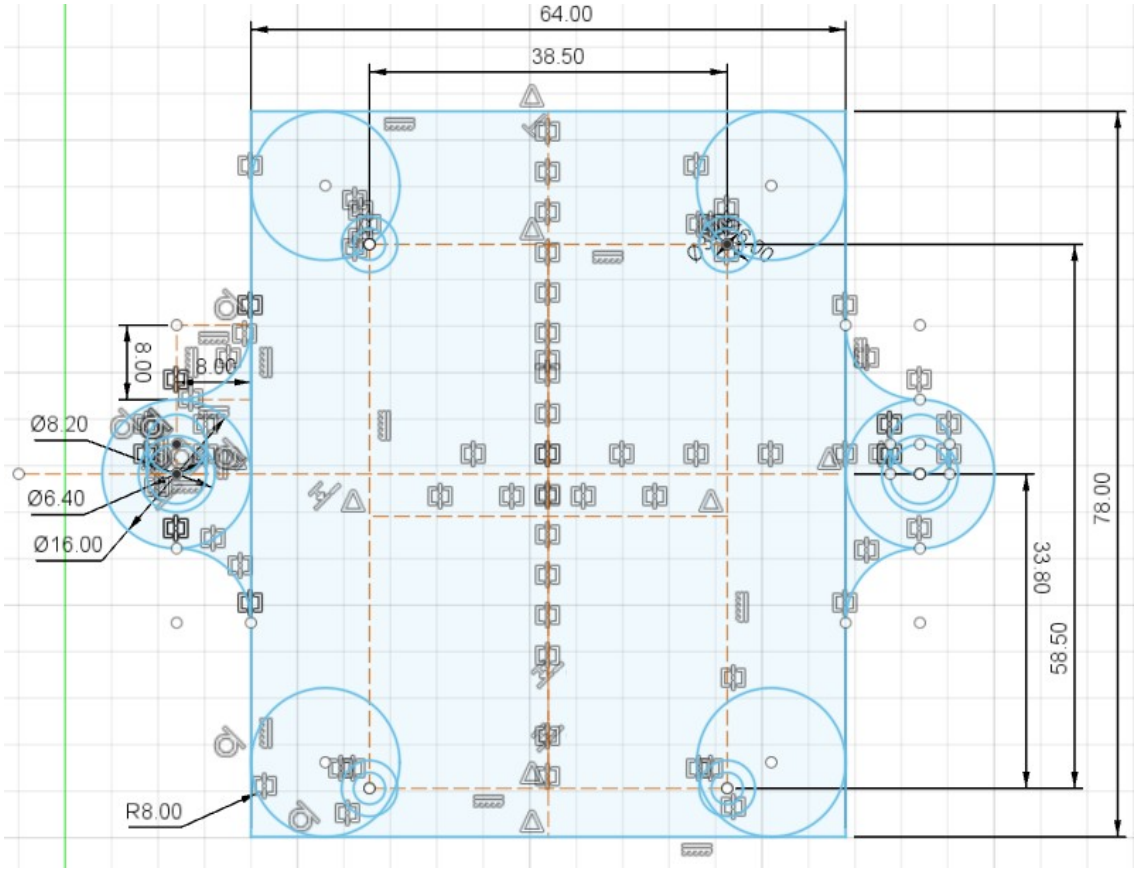
Screw final view

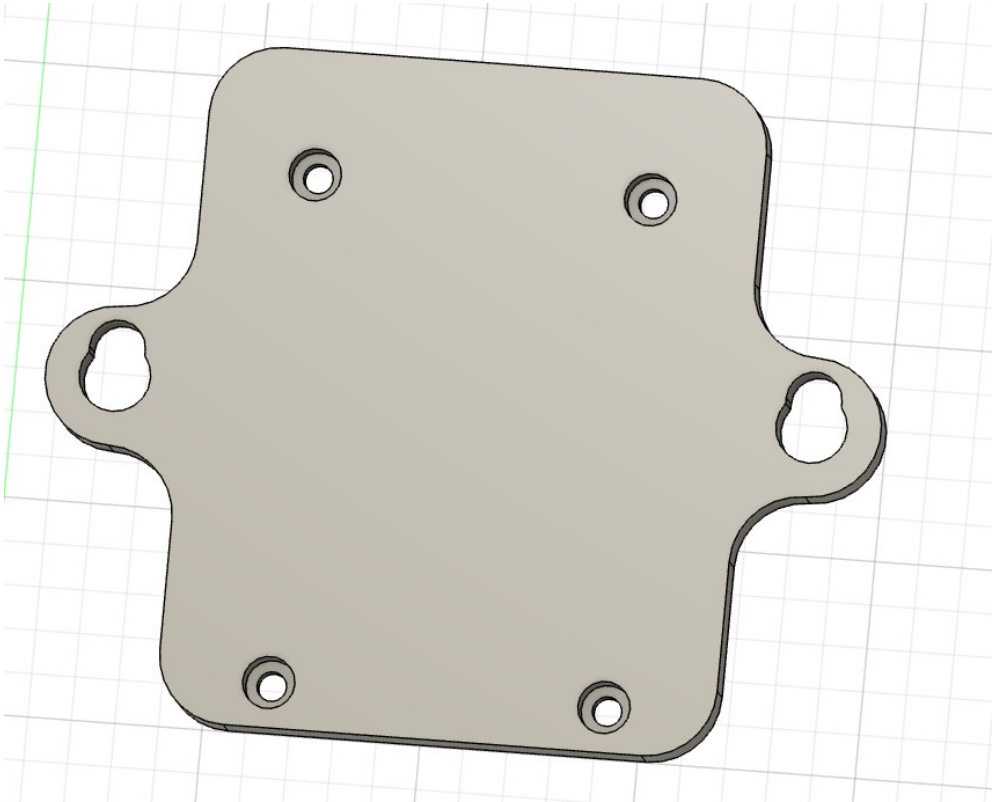




Camera Plate

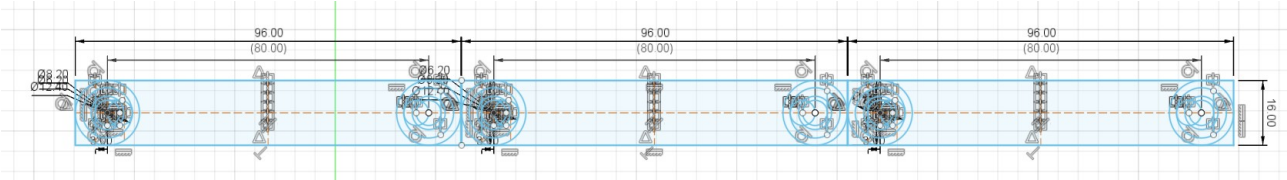
The camera plate now includes a slot for the screw



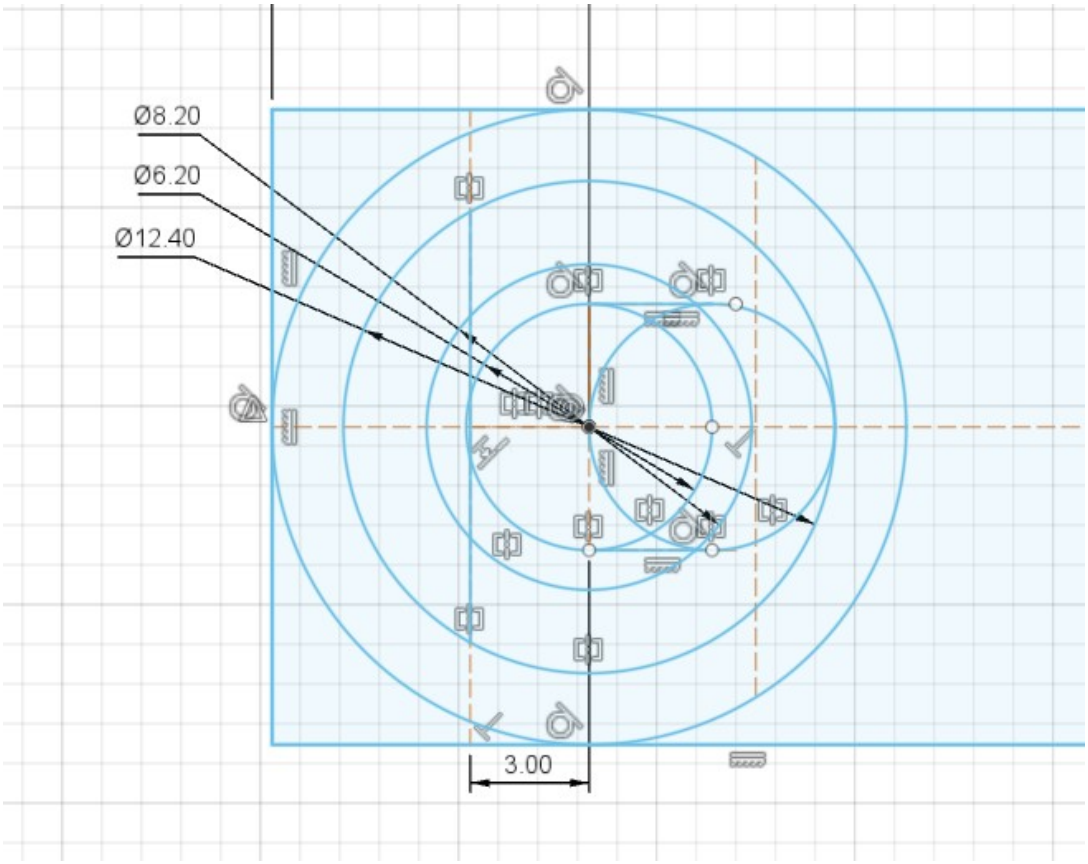


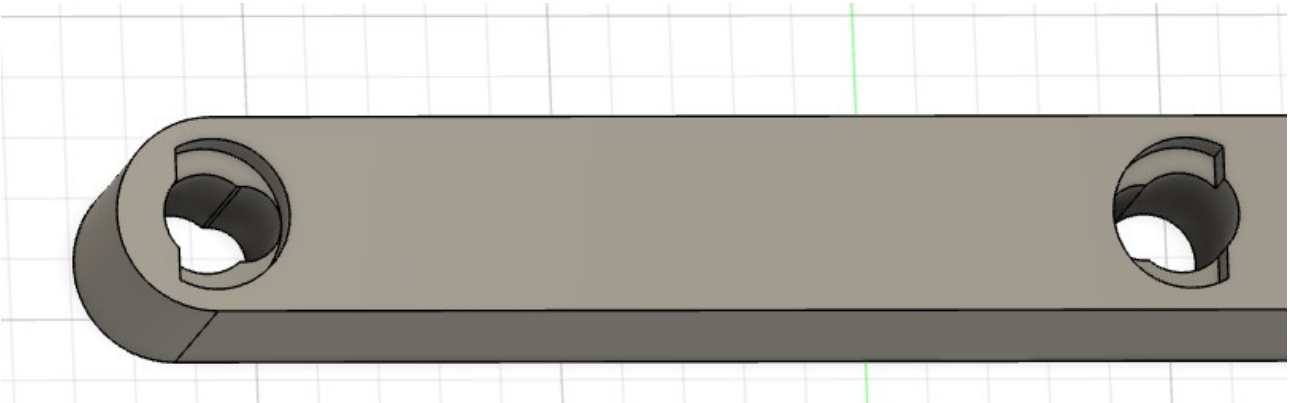
Support Beam

The beam now has a top and bottom since in one side we need the receptacle for the screw pin.

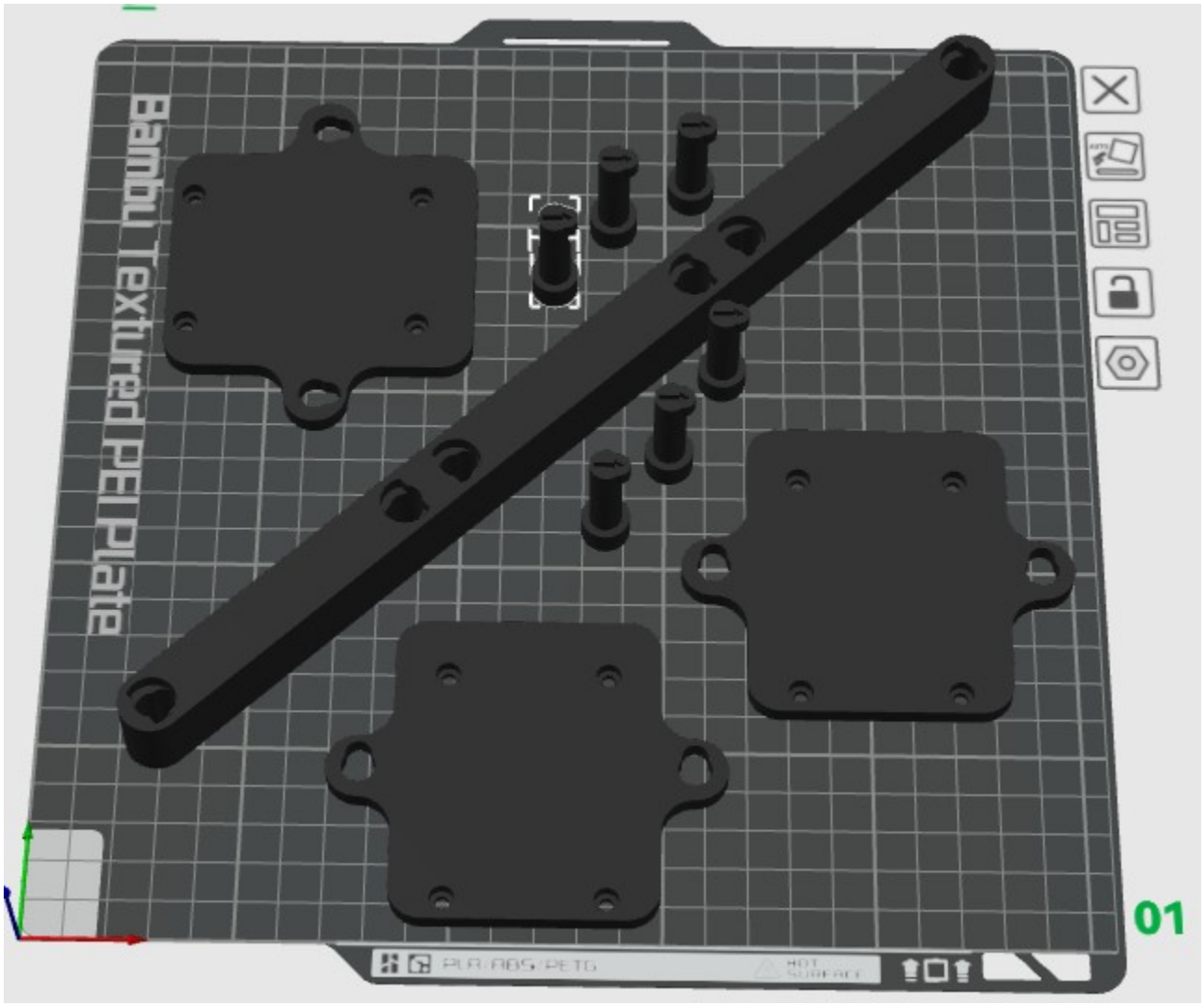


The receptacle is formed by an 8.20 mm and one 6.20 mm circle. A stop line in the back is used to limit the rotation to +/- 90°. Left and right receptacles are symmetric.



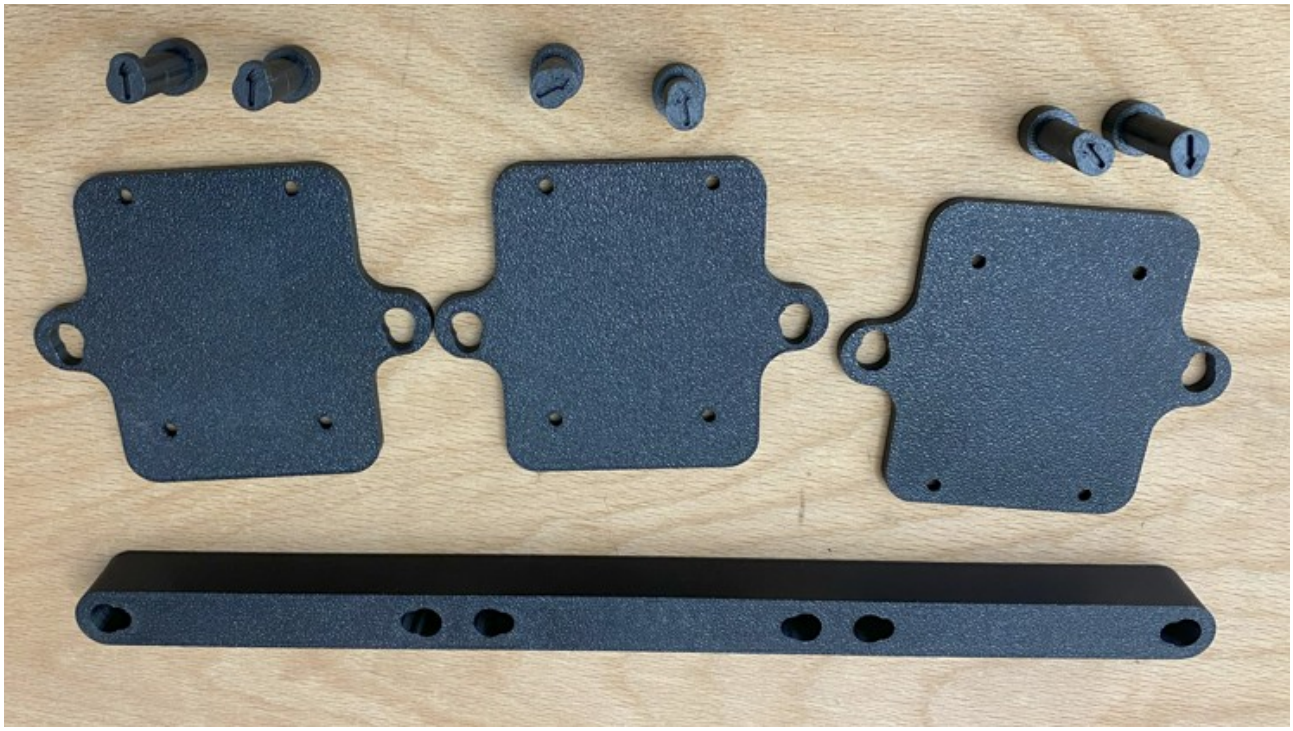


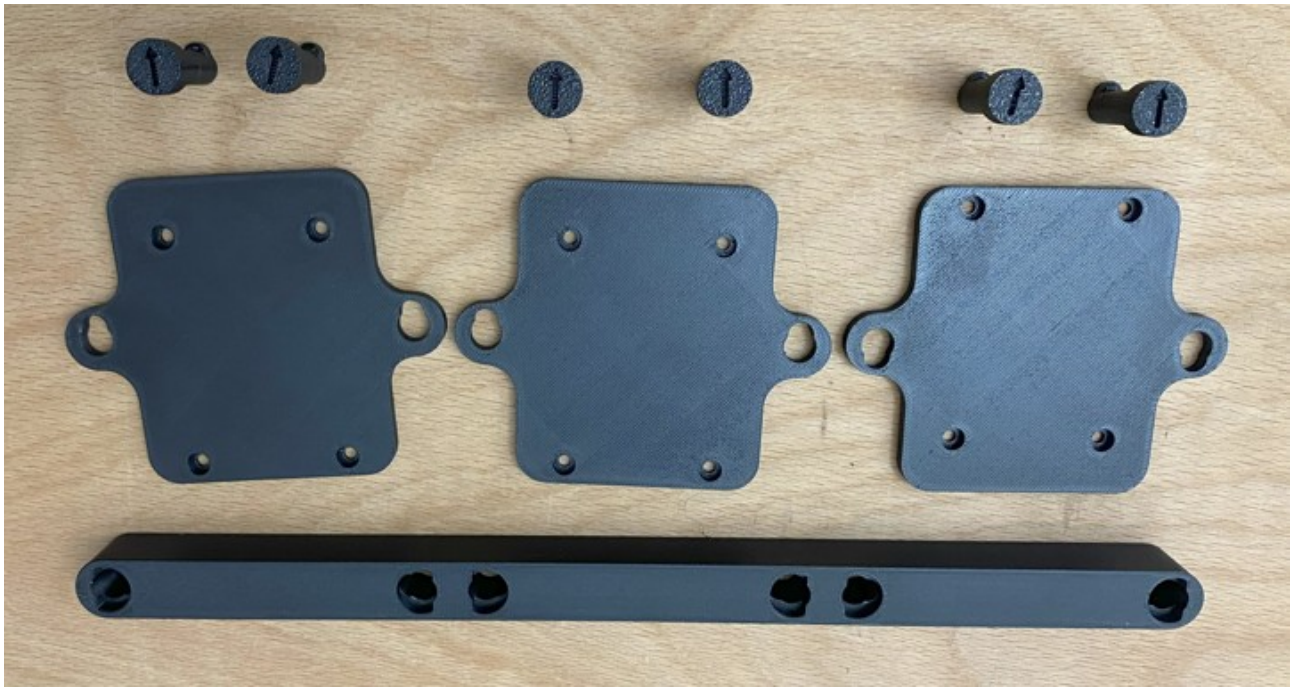
Printing Layout



Final Result 3.0

This is the resulting kit





Camera mounting plate and its screws

Now the rounded corners are perfect!

Possible improvements

- Add a text message to the camera screw side, since it is not simple to understand the screws has a hiding hole so the head is not emerging from the camera plate back, like a countersunk screw.

Multi Camera mount 2.0 (3 cameras 1 Clamp)

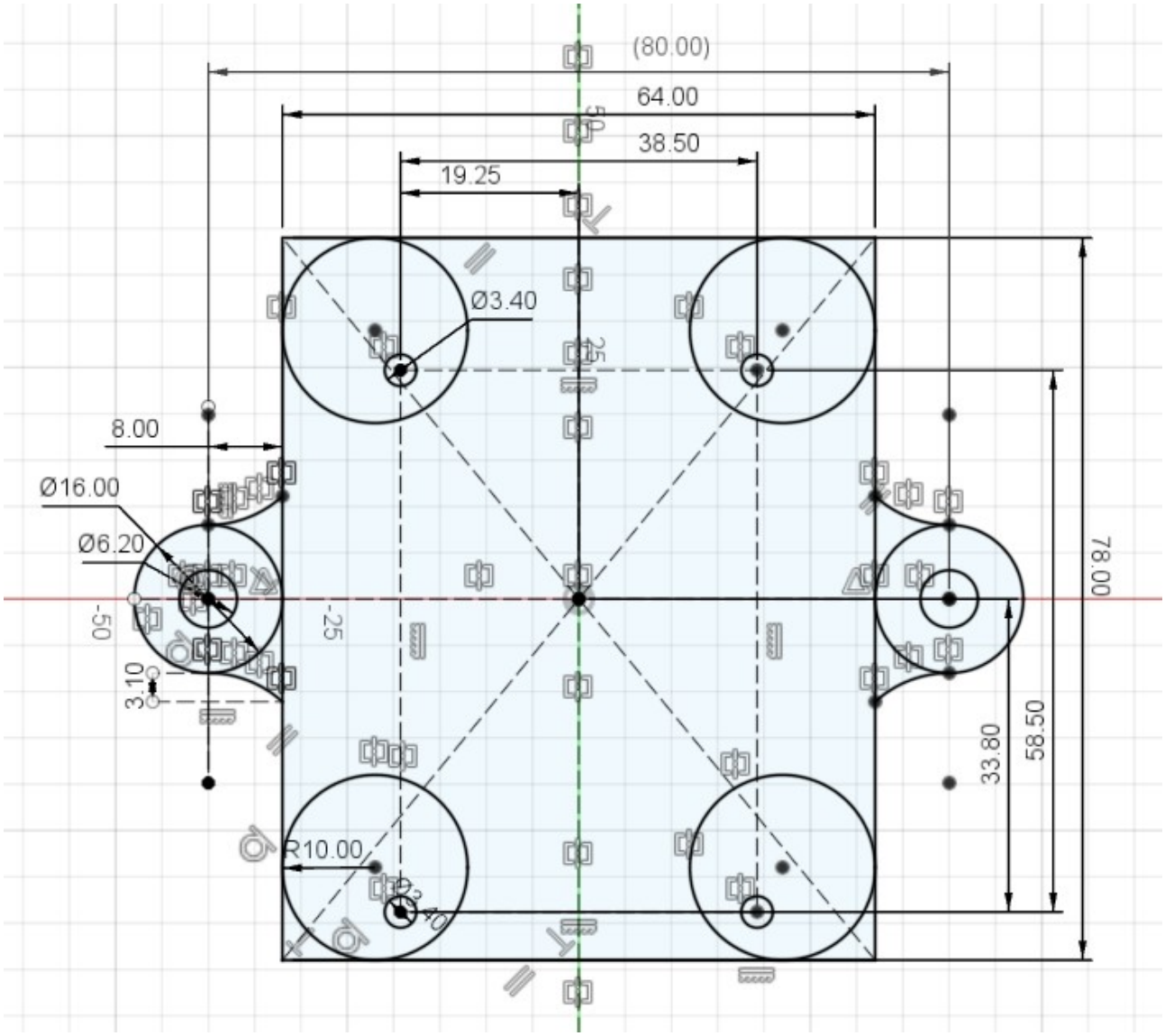
Improvements:

- Better alignment of the beam and the mounting plate
- Rounded mounting plates (10 mm radius)

Camera Plate

I add 4 R10 circles to round the plate and make it smooth

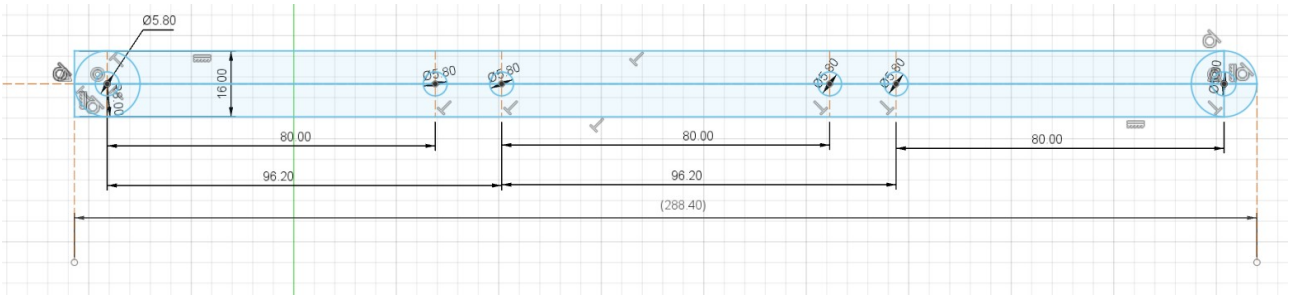
Changed the side mounting holes with a 16 mm rounded flange to better adapt to the beam



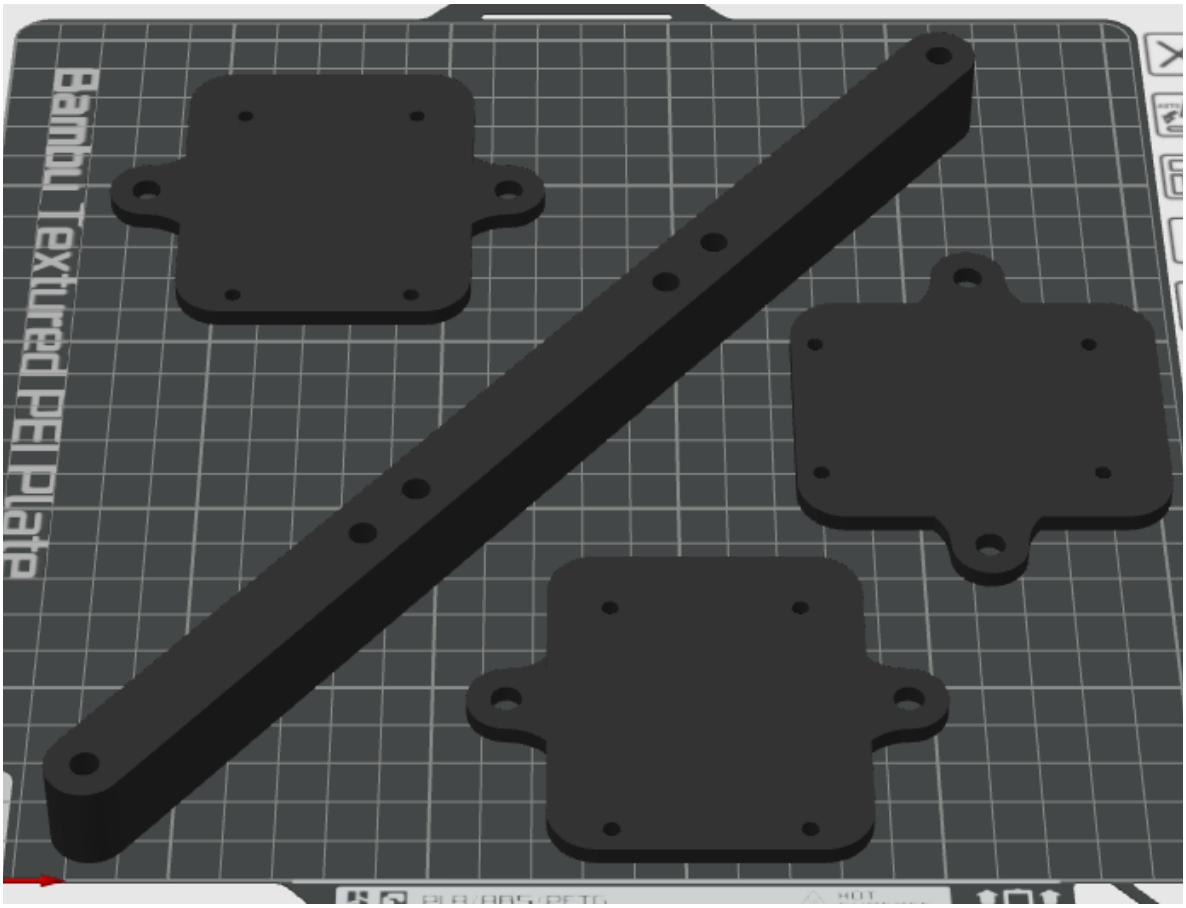
Support Beam

Total length: 288,40 mm

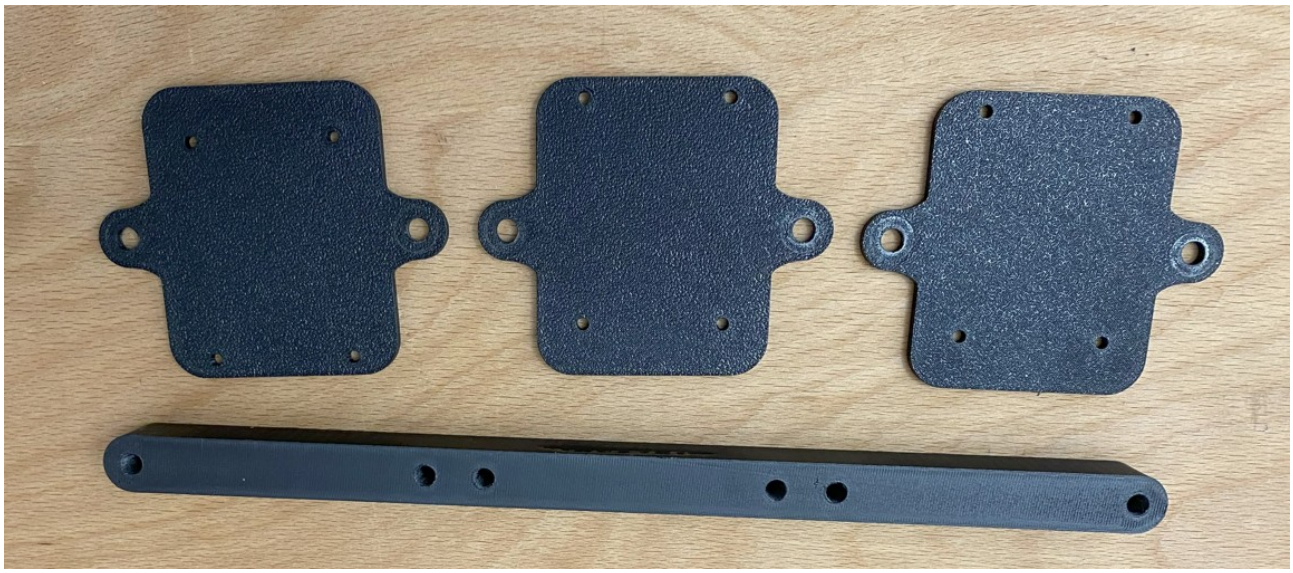
Camera distance: 96,20 mm



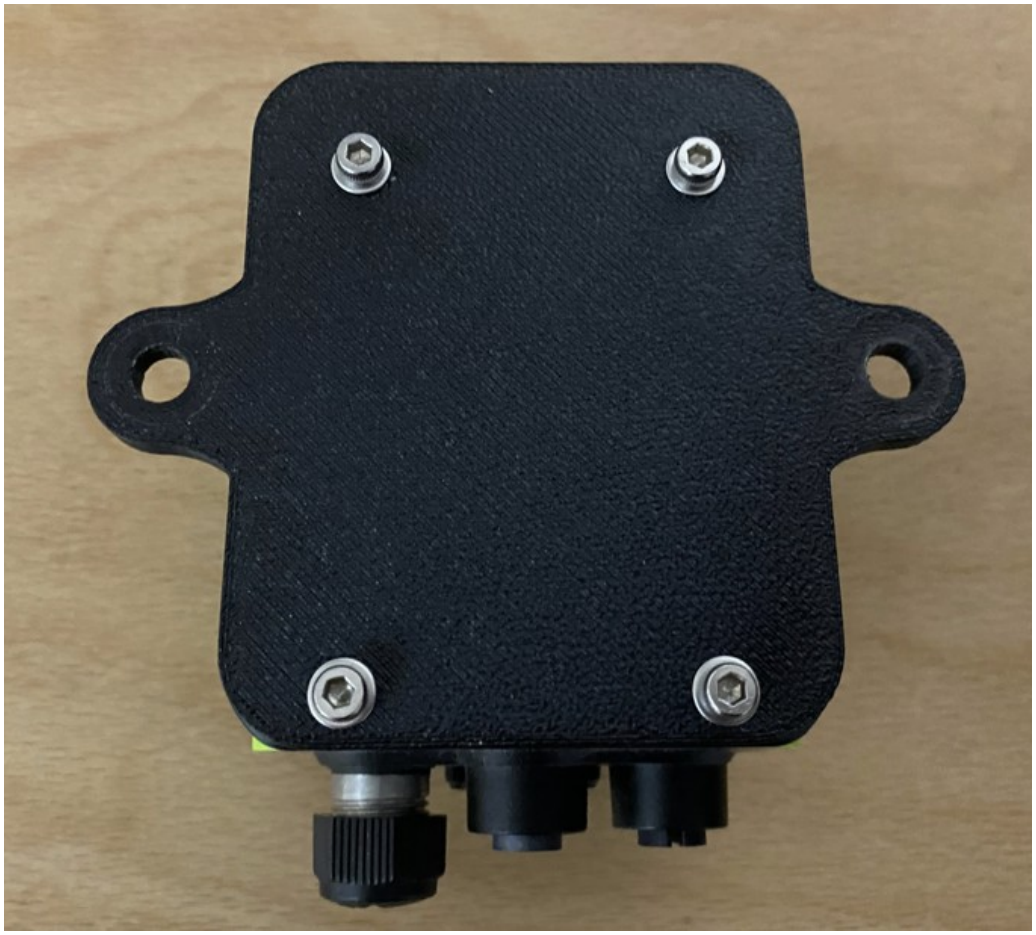
Printing layout



Final result 2.0



Camera plate mounted to the camera



Possible improvements

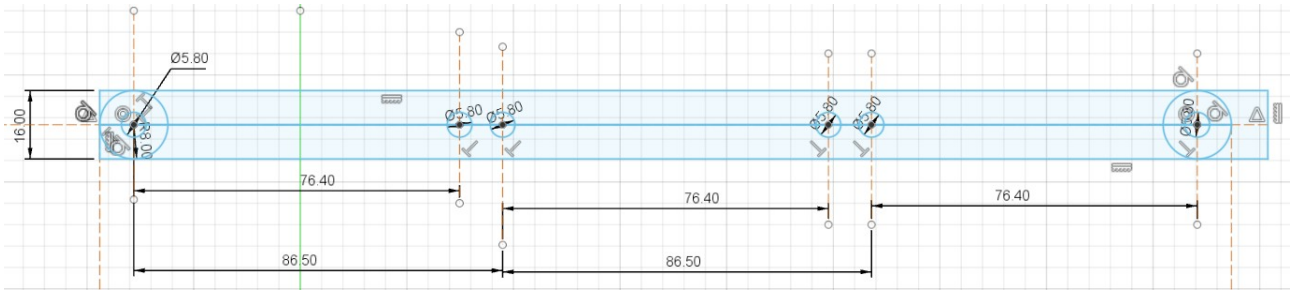
The rounding diameter is not ok, better try with a lower radius (current radius is 10 mm)

Multi Camera mount 1.0 (3 cameras 1 Clamp)

Support Beam

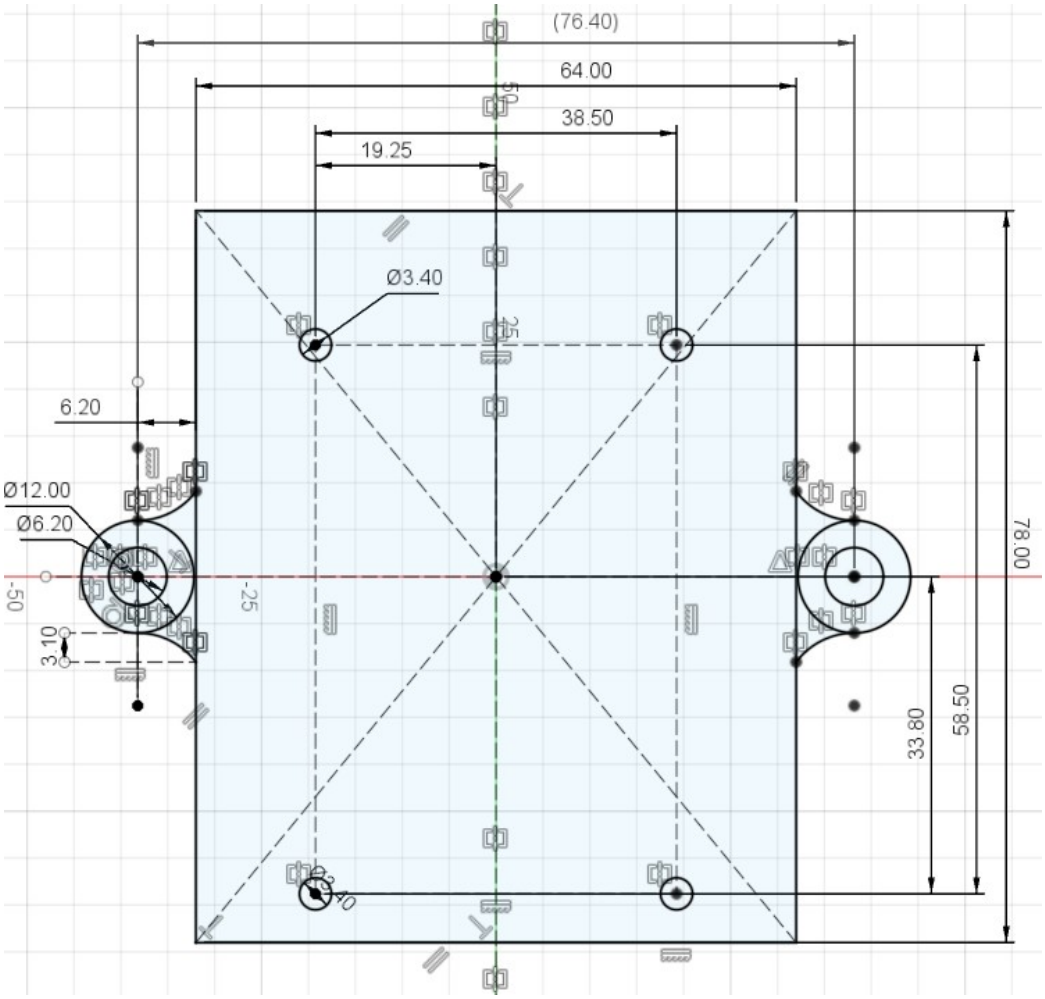
2 x 6 mm screws for each camera → 6 Screws

2 x 6mm washers for each camera → 6 Washers

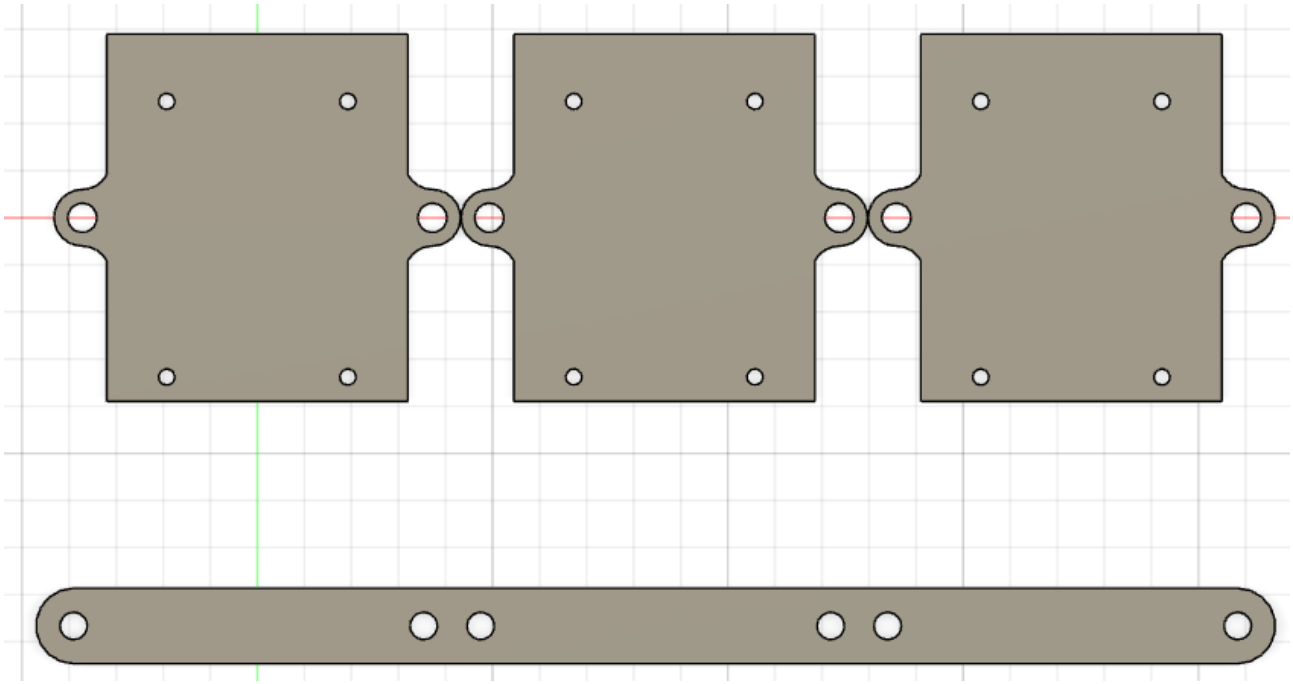


Camera Plate

Thickness: 4 mm



Top view



Final result 1.0

Possible improvements

Camera mount

Since the camera is rounded, so should be the camera mount. Having it squared makes it ugly

Beam and camera mount joint

The beam is 16 mm wide, the mounting fixture is 12 mm wide, hence this give an impression of mismatching