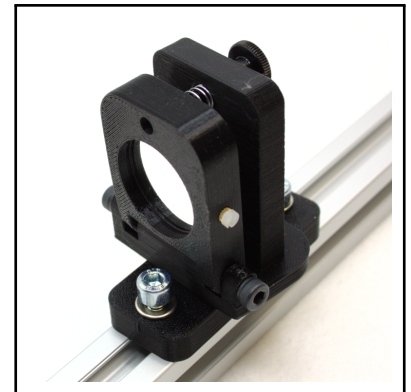


Holder module MHO-25RT

This module accommodates optical components such as mirrors or lenses with a diameter of 25.4 mm (1 inch). In contrast to the similar MHO-25R holder module, it has an additional tilting mechanism with which the mirror can be tilted a few degrees horizontally, for example to direct an optical signal exactly onto a detector. This component is also secured by a plastic screw and is rotatably mounted on the base plate around the fastening screw.

On the right is a picture of the holder module with the mirror inserted. The optical component (e. g. concave mirror with a focal length of 200 mm) is not included in the scope of delivery and can also be ordered from *Eureca*.



Components and tools required

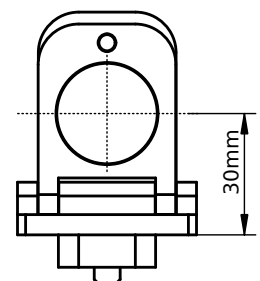
AMOUNT	DESIGNATION	DESCRIPTION
1	3D-0041	Baseplate 40 mm
1	3D-2011	Holder for optical components with 1" diameter
1	3D-2090	Baseplate for tilting mechanism
2	SM-5x14	Cylinderhead screw M5x14
2	WA-M5	Washer M5
2	SM-3x25	Cylinderhead screw M3x25
1	SM-4x8	Cylinderhead screw M4x8
1	WA-M4	Washer M4
1	SM-2x10-N	Polyamide screw M2x10
1	TI-M4x4	Threaded insert M4x4
1	TI-M2x4	Threaded insert M2x4
1	TI-M3x6	Threaded insert M3x6
1	SM-3x20-T	Knurled screw M3x20
1	WA-M3-P	Washer M3 plastic
1	SP-5x15	Spring



The »3D-*« components are individually adapted to the component and made from PLA filament using a 3D printer. The step files are available on request and via download.

Tools: Soldering iron or special melting set (the threaded inserts are already melted in the overview picture of the components); Allen keys 3 and 4.

The center of the optical component is 30 mm above the top edge of the baseplate.



Assembly

It is recommended to gather all the parts and tools needed and carefully read the instructions before assembly.

Melt the threaded inserts into the corresponding holes of 3D-2011. To do this, heat the inserts with a soldering iron or a special melting set, press slowly and vertically into the holes and allow to cool. When doing so, observe the correct positioning and orientation of the threaded inserts and ensure that no plastic gets into the thread (otherwise clean it).

Melt the TI-M3x6 on the side opposite the contact edge (small bridge) for the optical component.

Slightly screw the polyamide screw into the lateral thread insert, it will later fix the optical component.

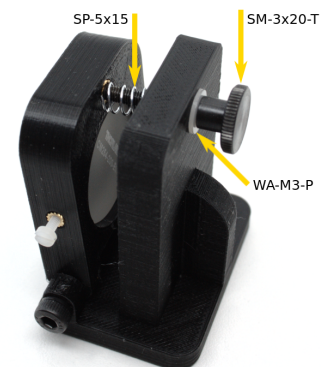
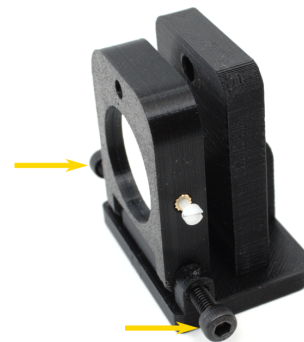
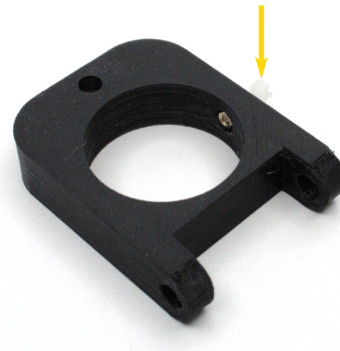
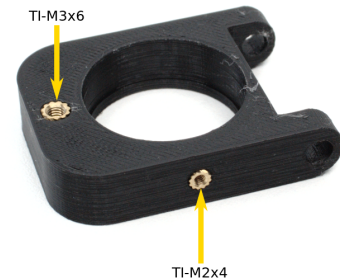
It is advisable to insert the optical component before further assembly. To do this, insert it carefully until it rests on the support edge. Any tilting will complicate the adjustment later. It may be necessary to remove any burrs from the print.

Place the mirror holder 3D-2011 on its baseplate 3D-2090 and fix it with the two cylinderhead screws SM-3x25. These are simply inserted into the corresponding holes.

Pay attention to the orientation of 3D-2011: the optical component has to point to the front, of course!

The tilting mechanism consists of a knurled screw SM-3x20-T with a spring SP-5x15 and a plastic washer WA-M3-P. Attach these at the top as shown in the adjacent figure. Screw the knurled screw into the threaded insert until the component holder is approximately perpendicular to the baseplate.

The optical component can then be tilted forwards or backwards by a few degrees by turning the knurled screw.

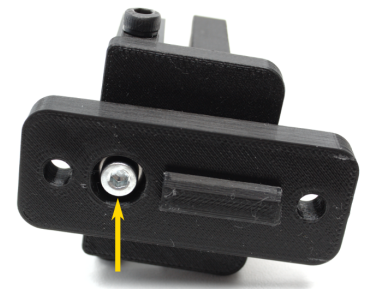


Eureca Line Scan Cameras

Assembly instructions holder module MHO-25RT



Place the holder with the remaining threaded insert in the middle of the smooth upper side of the baseplate and screw it from below through the middle fastening hole with the SM-4x8 cylinderhead screw and the WA-M4 washer. Tighten the screw just enough so that the mirror does not wobble, but can still be turned a bit with slight force for precise alignment on the baseplate.



Insert a SM-5x14 cylinderhead screw with a WA-M5 washer from above through the remaining mounting holes. The module is then later screwed to the profile with these.



More on our website: <https://www.eureca.de/LSC/>.

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