

Camera module MDH-LSMD

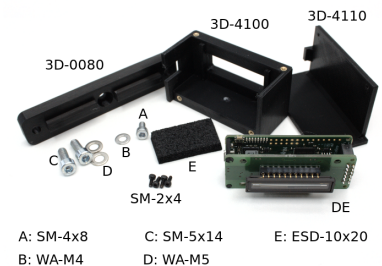
To protect a line scan camera used as a detector from dust and potentially dangerous electrostatic contact, it is located in a simple housing. The housing can be rotated around the mounting axis on the base plate in order to be able to optimize the focus of the spectrum to be recorded across the entire line range.

The case has no ventilation slots and is only intended for operation at normal room temperature. A vented enclosure may need to be used where higher operating temperatures might occur.



Components and tools required

MENGE	BEZEICHNUNG	BESCHREIBUNG
1	3D-0080	Baseplate
1	3D-4100	Camera body bottom
1	3D-4110	Camera body cover
4	TI-M2x4	Threaded insert M2x4
4	SM-2x4	Cylinderhead screw M2x4
1	TI-M4x4	Threaded insert M4x4
1	SM-4x8	Cylinderhead screw M4x8
1	WA-M4	Washer M4
2	SM-5x14	Cylinderhead screw M5x14
2	WA-M5	Washer M5
1	ESD-10x20	ESD foam piece 10 × 20 mm

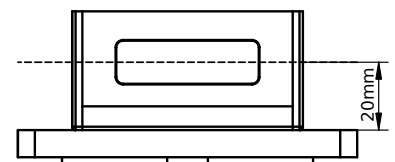


The »3D-*« components are individually adapted to the component and made from PLA filament using a 3D printer. The step files are available on request and via download.

Tools: Soldering iron or special melting set (the threaded inserts are already melted in the overview picture of the components); Allen keys in various sizes for the cylinder head screws.

Optional spacers

If necessary, spacers can be used between the baseplate and the component holder. Without a spacer, the center of the sensor is 20 mm above the top edge of the baseplate. Depending on the spacer used, this distance changes accordingly.



There is a separate document for the spacers, in which the available types are presented and described. In this case, a spacer with a length of 65 mm is required (item number 3D-55xx). The height of the spacer must be selected according to the requirements (xx then stands for the two-digit thickness in mm), for example based on the information in the application description.

A picture of the module with an additional spacer is shown on the right.

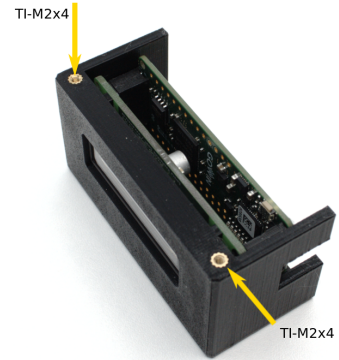


Assembly

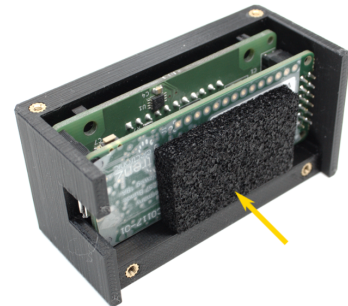
It is recommended to gather all the parts and tools needed and carefully read the instructions before assembly.

Melt the four threaded inserts TI-M2x4 at the top and rear as well as the threaded insert TI-M4x4 on the bottom into the corresponding holes of 3D-4100. 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. Pay attention to the correct positioning and orientation of the thread inserts and that no plastic gets into the thread (clean it otherwise). Then insert the camera module.

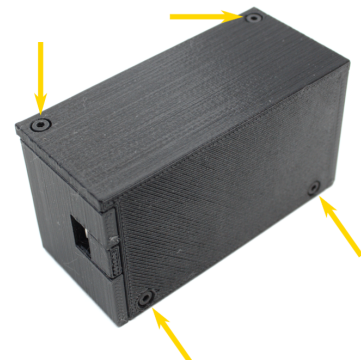
The base of the sensor fits snugly into the opening in the housing. It may be necessary to remove burrs from the 3D print.



Cover the contacts on the back of the circuit board with an adhesive strip to protect them and put a piece of ESD foam on top. This is used to ensure that the camera later sits firmly and protected in the housing »without play«.



Install the 3D-4110 cover and secure with the four SM-2x4 Cylinderhead screws.

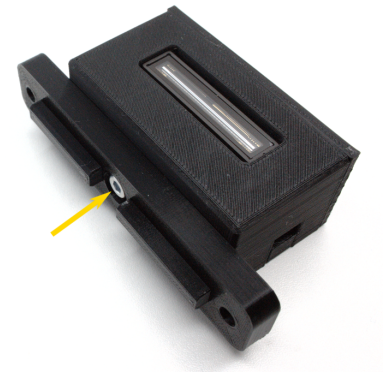


Eureca Line Scan Cameras

Assembly instructions camera module MDH-LSMD



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 cylinder head screw and the WA-M4 washer.



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/>.

17. Juli 2023 – Version 1.1

