

List of custom-made elements

This document is made to help the implementation and use of the custom-made elements presented.

General considerations

All the presented pieces and custom-made elements can be readapted for the users' purposes. All the screw threads were manually tapped.

GRIN Holder

This piece is used combined with the *Holder2* in order to align the fiber with a GRIN lens of 1.1mm diameter. Two screws on the side of the implant allows to correctly fix both the fiber and the GRIN lens in the holder. The implant presented here can be redesigned for different fiber and GRIN lens diameters. The material used is aluminum.

Holder1

This holder is used to make the link between the custom made *ScopeBody* and a regular Thorlabs post thanks to the M4 screw thread. On the other side of the holder, the rectangular hole allows to insert the back part of the *ScopeBody* and a screw enable to fixate everything altogether for head-fixed experiments.

Holder2

This holder is used to make the link between the custom made *GRIN Holder* and a regular Thorlabs post thanks to the M4 screw thread. On the other side of the holder, the arms allows to hold the *GRIN Holder* and a screw enable to fixate everything altogether for head-fixed experiments.

ScopeBody

This piece is used combined with the *Holder1* in order to align the fiber with the mini-objective used in the publication. This implant is based on the MINI2P design. The technical scheme was modified and adapted to match the 2P-FENDO-II setup conditions. It was 3D printed (SLA) with a Form 3 3D printer from Formlabs™. One screw on the top allows to correctly fix the fiber on the implant and the mini-objective can be screwed in the bottom part of the implant. The implant presented here can be redesigned for different fiber diameters.