Institute for Combustion and Gas Dynamics
Fluid Dynamics
AG Mohri - Tomographie

UNIVERSITÄT DUISBURG ESSEN
Offen im Denken
CCSS

Bachelor project:
Tomo-hedgehog - precision 3D camera mount

Multiple cameras need to be positioned around a field of interest, e.g. a flame, to obtain images from different angles which can be used to reconstruct the field directly in 3D. In this project such a camera mount must be designed and made using additive manufacturing. The mount must be rigid enough to hold the weight of the cameras (<90 g each) and robust enough to withstand transport to different laboratories. The cameras must not move when fixed on the mount. Most importantly, the location of each camera in world coordinates must be known and hence the mounting system must be designed with precision. A total of 30 cameras are available, dimensions approximately 29 x 29 x 54 mm. The mount must accommodate at least 12 cameras. An example of a possible design is illustrated below.

For further information please contact khadijeh.mohri@uni-due.de.