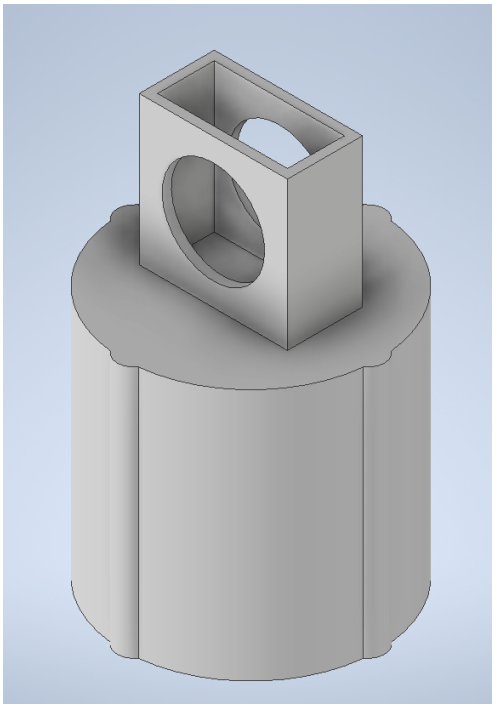
AE-594: Design and printing of 2nd generation of holder for power measurment

Date: 2025-10-16
Tags: AE | CAD | Autodesk Inventor | Additive manufacturing | 3D print | advanced irrad setup | Prusa Slicer
Category: Photoreactor
Status: Done
Created by: Alexander Eith

CAD and Image of 3D Print

CAD	Photo
	

Literature/reference experiments

Literature	/
Reproduction	/
Similar experiments	Photoreactor - AE-431: Print and Setup of advanced power measurement setup V1.0

Filament

Name	CAS Number / Experiment Number	Mass [g]
PLA (PrimaValue PLA+ black, 1.75 mm diameter)	26680-10-4	72

3D printing parameters

Used printer	Equipment - 3D printer - PRUSA MK4S - CEEC I Lab 208
Printing temperature [°C]	215
Bed temperature [°C]	60
Layer height [mm]	0.2
Infill (%)	15
Infill type	"Gitternetz"
Support structure type	organic

Printing procedure

Part identifier	Date	Time	CAD file	STL file	Description	Reference part	Modifications	Print Result	Future modifications
power_sesnor_aperture_V1.0	14.10	13:00	power_sensor_aperture_V1.0.ipt	power_sensor_aperture_V1.0.stl	Aperture for holding power sensor	/	/	worked	Sensor does not fit into holder, make it a bit wider
power_sensor_aperture_V1.1	22.10	14:00	power_sensor_aperture_V1.1.ipt	power_sensor_aperture_V1.1.stl	Aperture for holding power sensor	power_sensor_aperture_v1.0	Holder 1 mm shorter small sides and 3 mm longer longer sides	worked	fits well

Results

power_sensor_aperture_V1.1 can and should be used with Equipment - Advanced power measurment setup V1.0 I

Linked experiment

Photoreactor - AE-431: Print and Setup of advanced power measurement setup V1.0

Linked resources

Equipment - Advanced irradiation setup V1.0 I

Equipment - Advanced power measurment setup V1.0 I

Equipment - 3D printer - PRUSA MK4S - CEEC I Lab 208

Attached files

power_sensor_aperture_V1.1.stl
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power_sensor_aperture_V1.1.ipt
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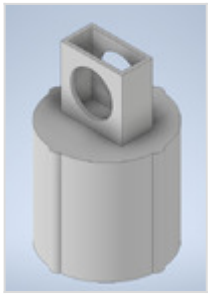

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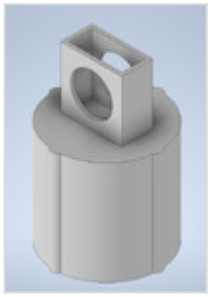

picture.jpg
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Link: https://elab.water-splitting.org/experiments.php?mode=view&id=3202