Progress of designing a Sample Holder.

Casimir van der Post

TU Delft Nikhef

Starting point

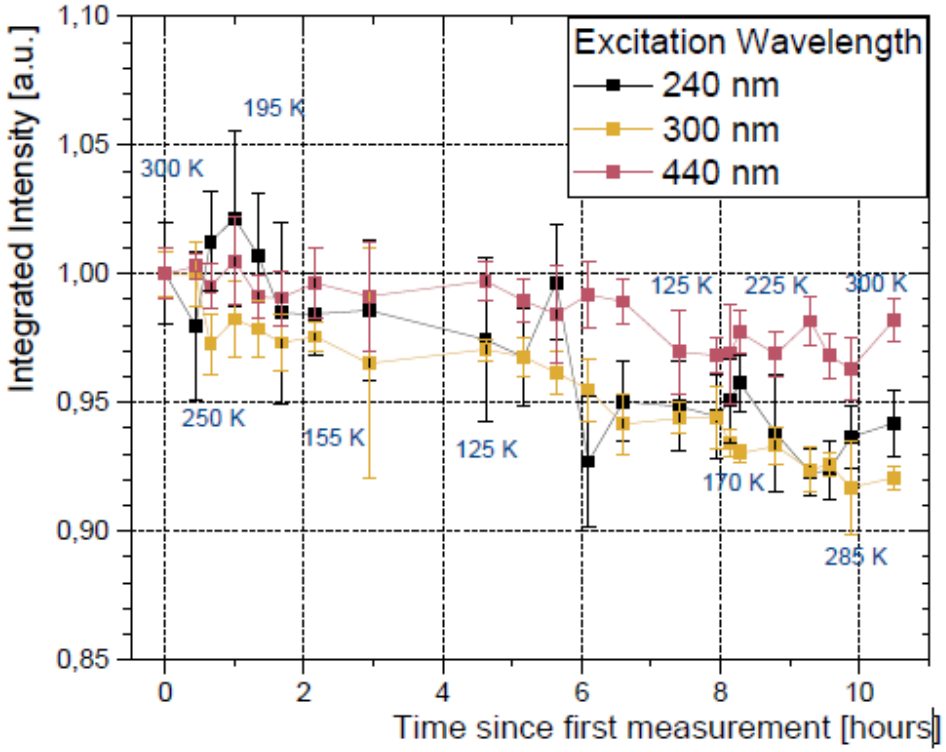
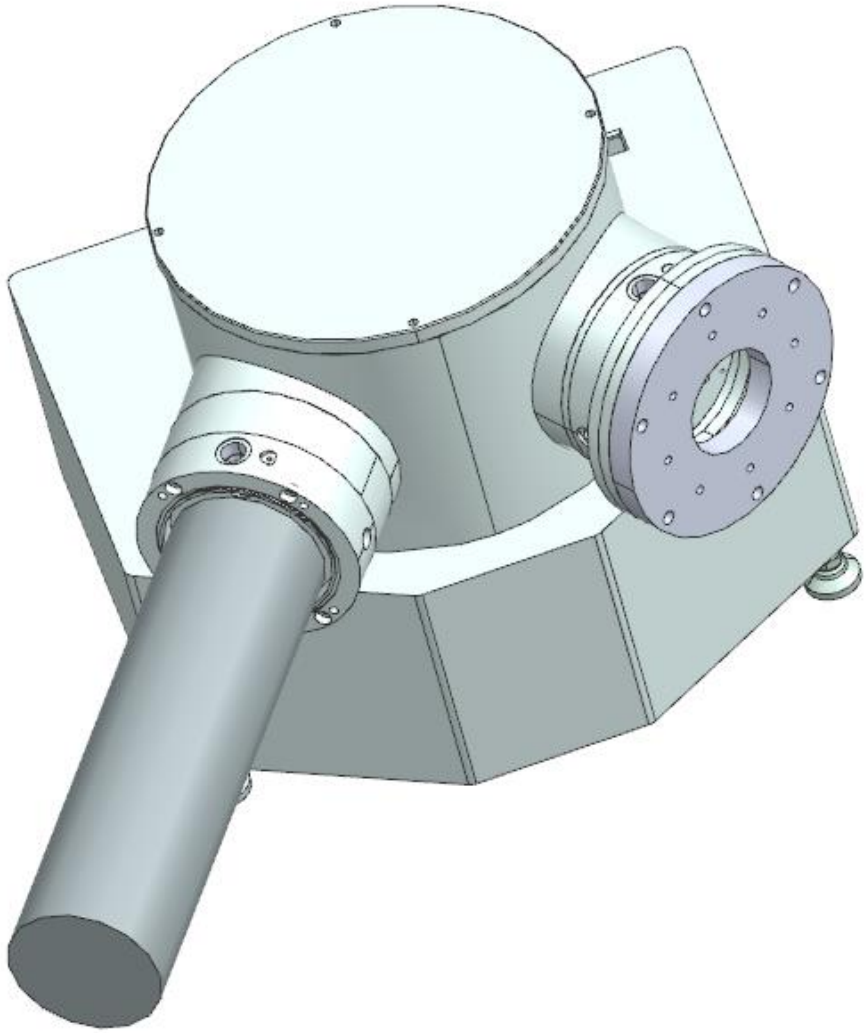
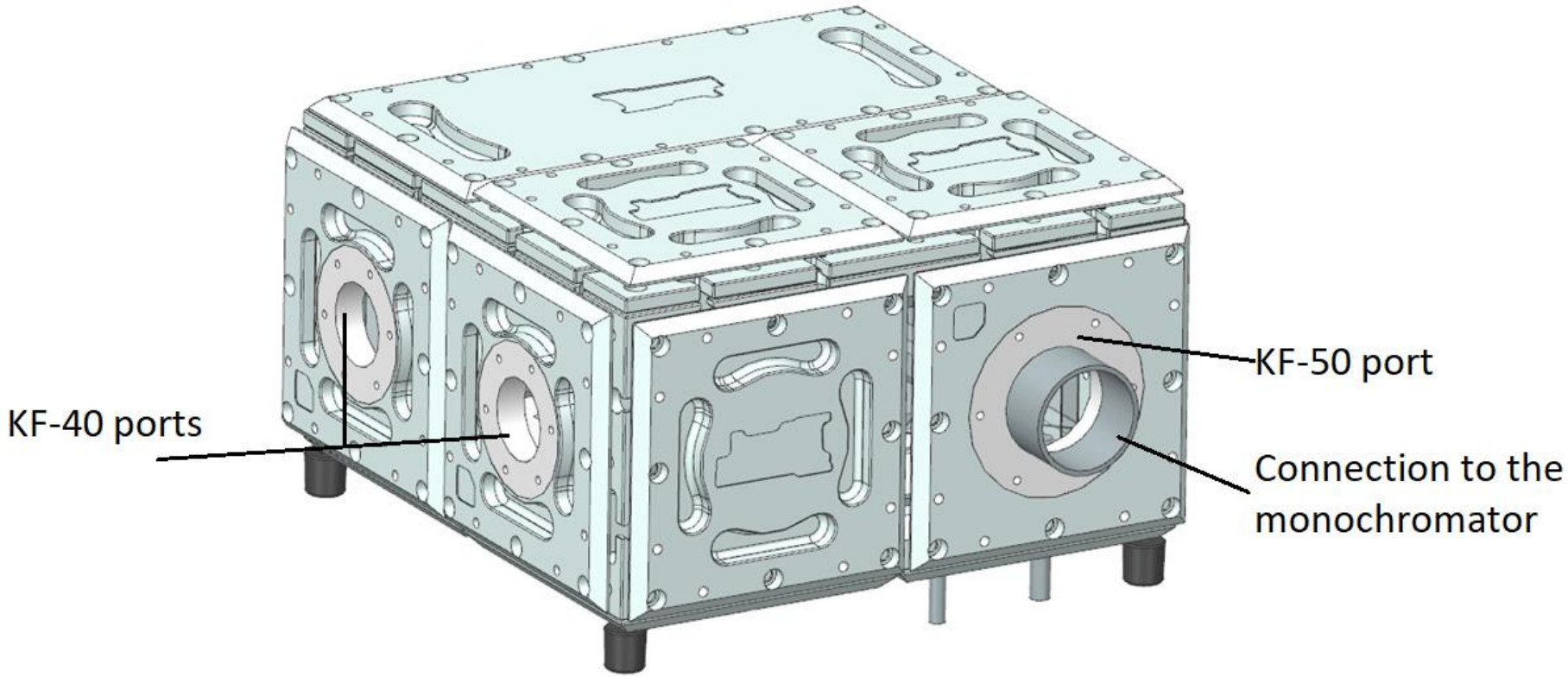


Figure 5.11: Intensity of reflected light on PTFE sample for 240 nm, 300 nm and 440 nm excitation wavelength during the cooling cylce. The sample temperature at different stages is displayed next to the data points (blue). The errors bars indicate the statistical uncertainties from the dark noise correction and system fluctuation.

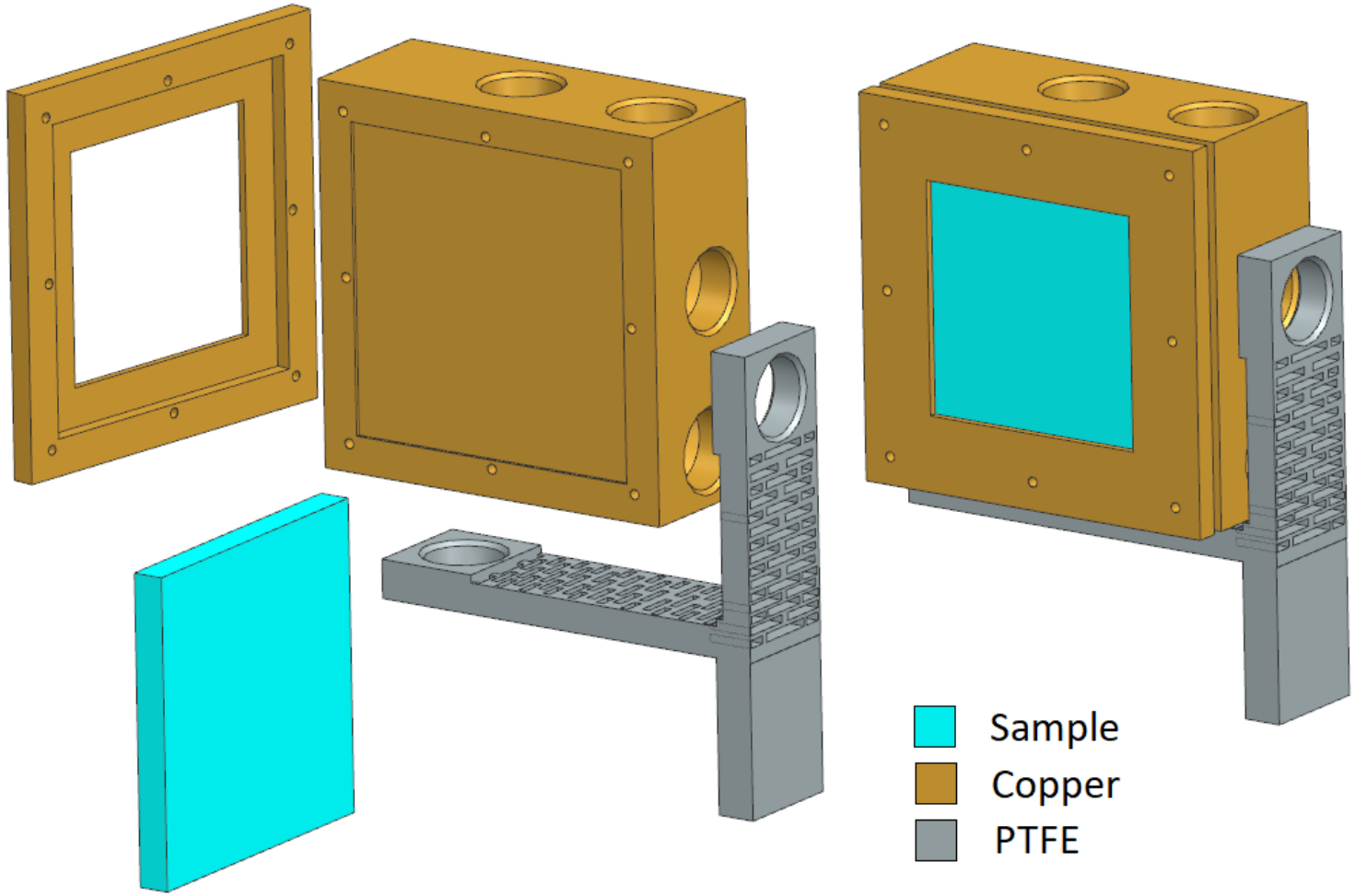
Monochromator and deuterium lamp



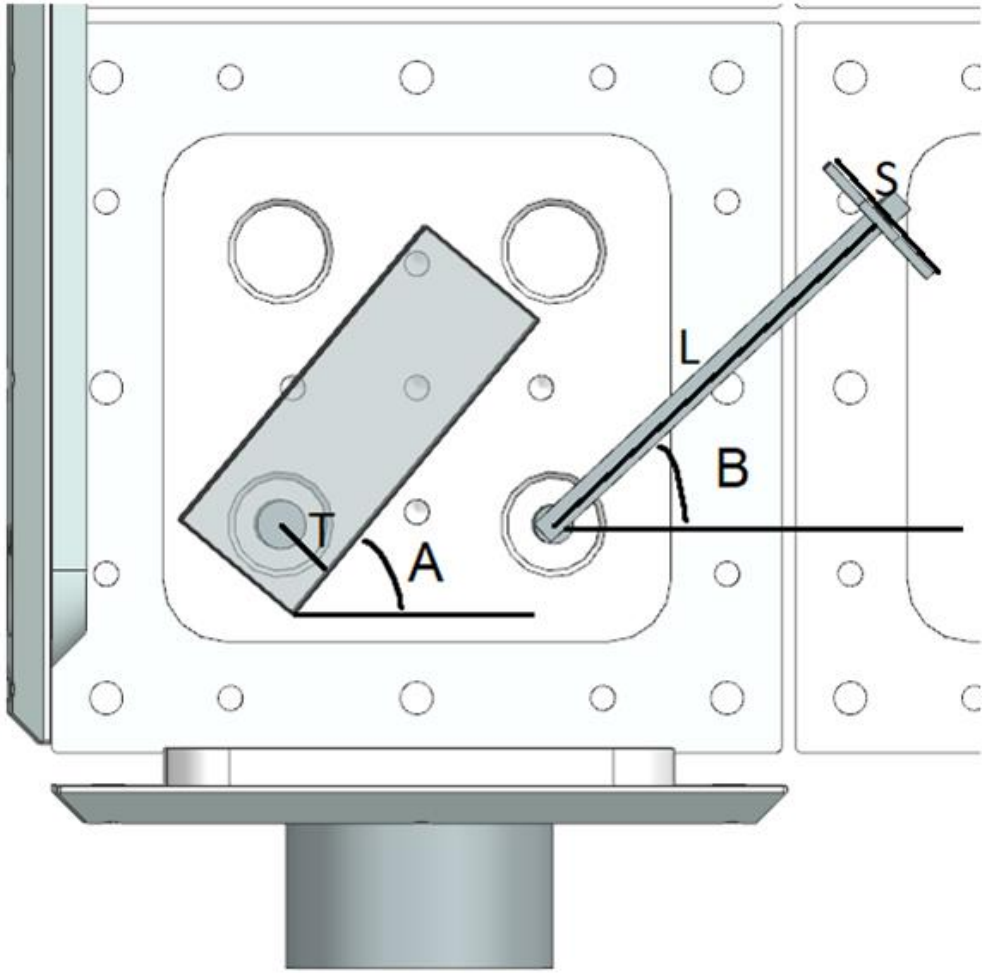
Modular vacuum chamber



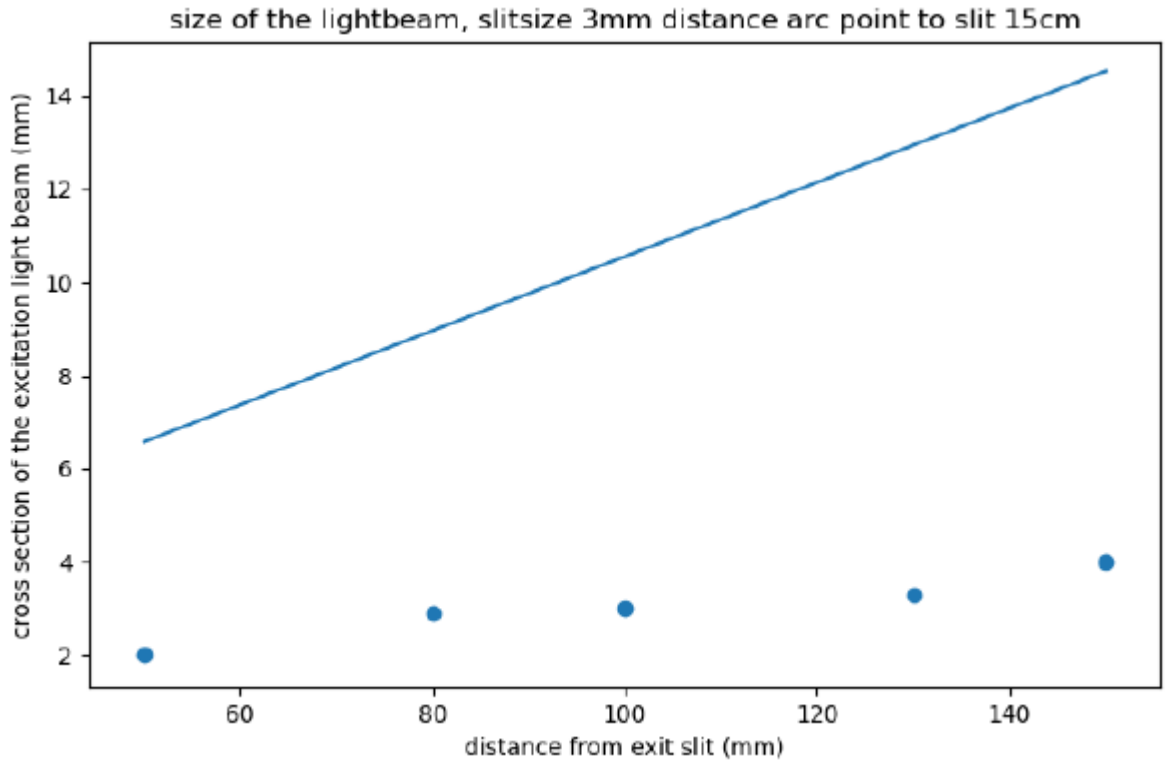
Sample holder designed by Jeroen



Layout of the different parts installed inside the vacuum chamber

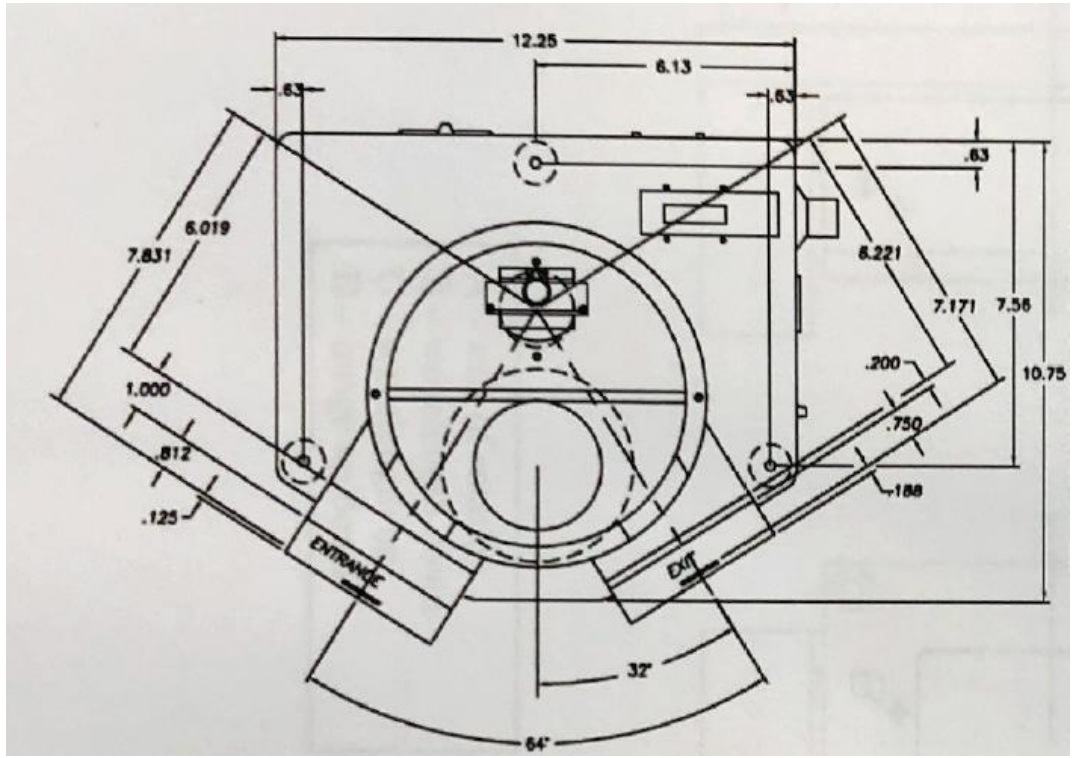


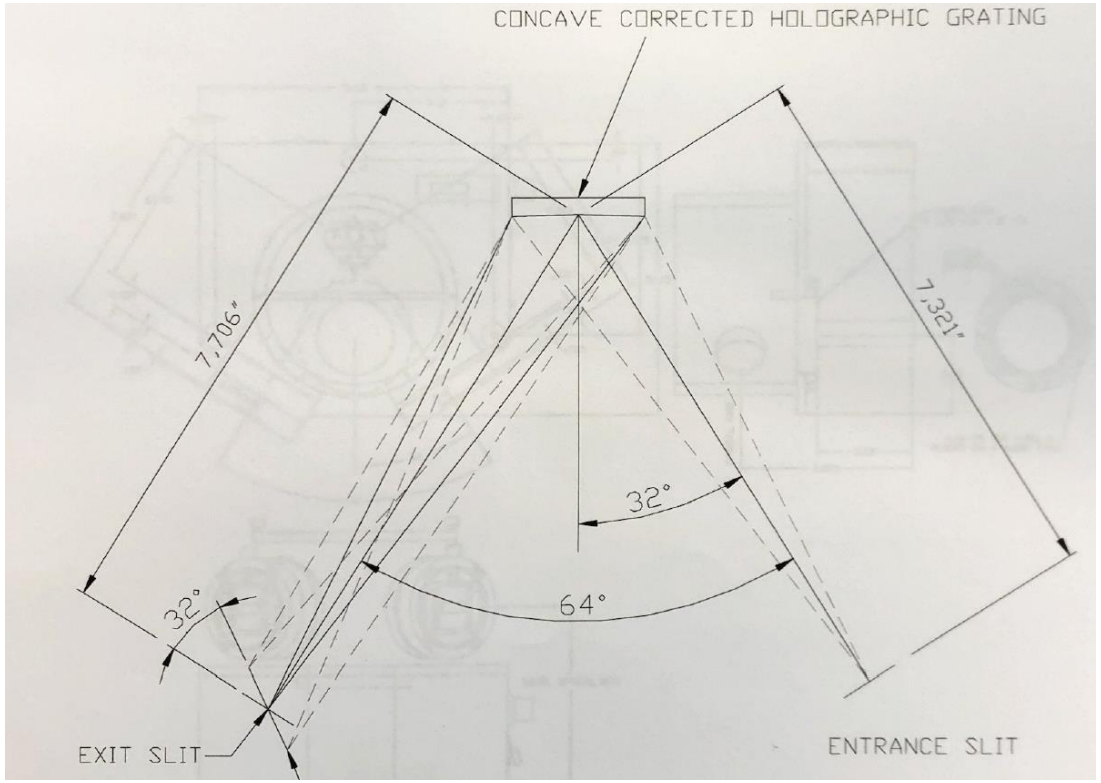
Comparing the dispersion measurements and calculations of the excitation light beam



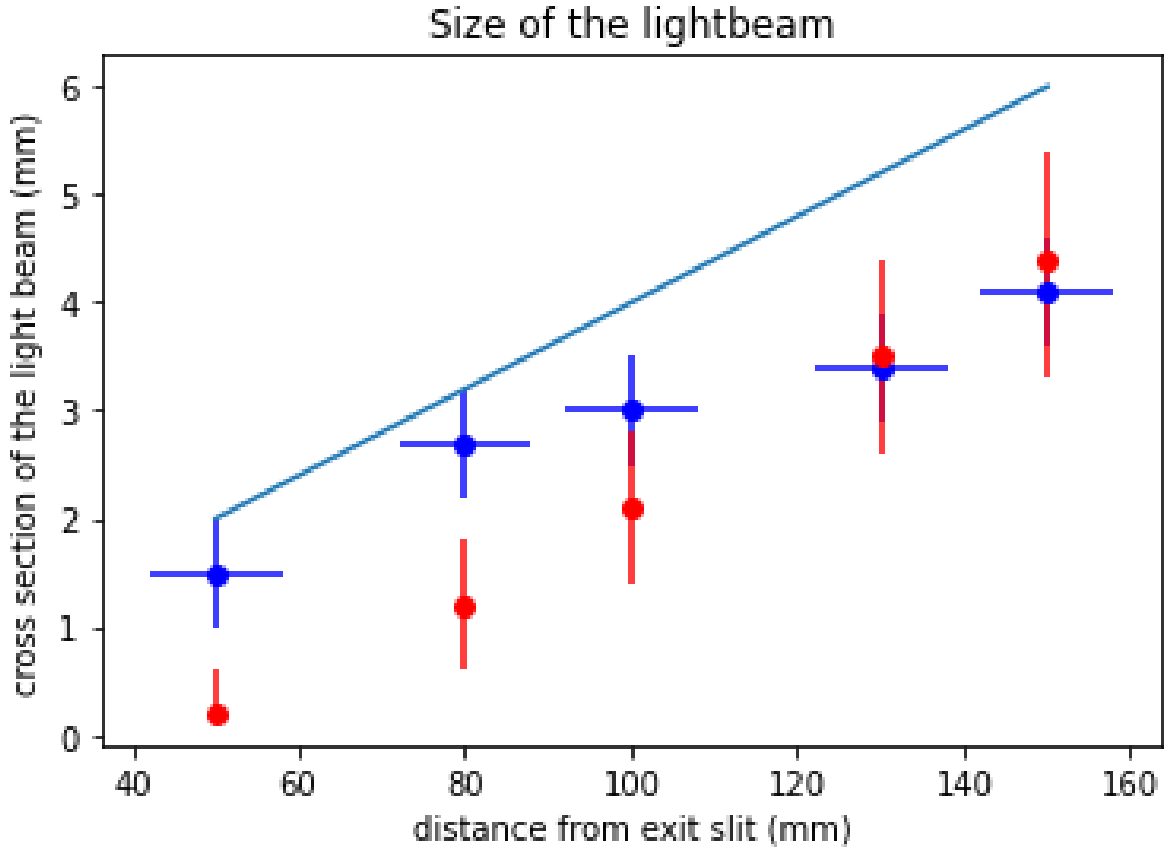
Distance to slit	Jeroen	Casimir and Vikas
50 [mm]	2.0 [mm]	1.5 [mm]
80 [mm]	2.9 [mm]	2.7 [mm]
100 [mm]	3.0 [mm]	3.0 [mm]
130 [mm]	3.3 [mm]	3.4 [mm]
150 [mm]	4.0 [mm]	4.1 [mm]

Finding discrepancies in the manual

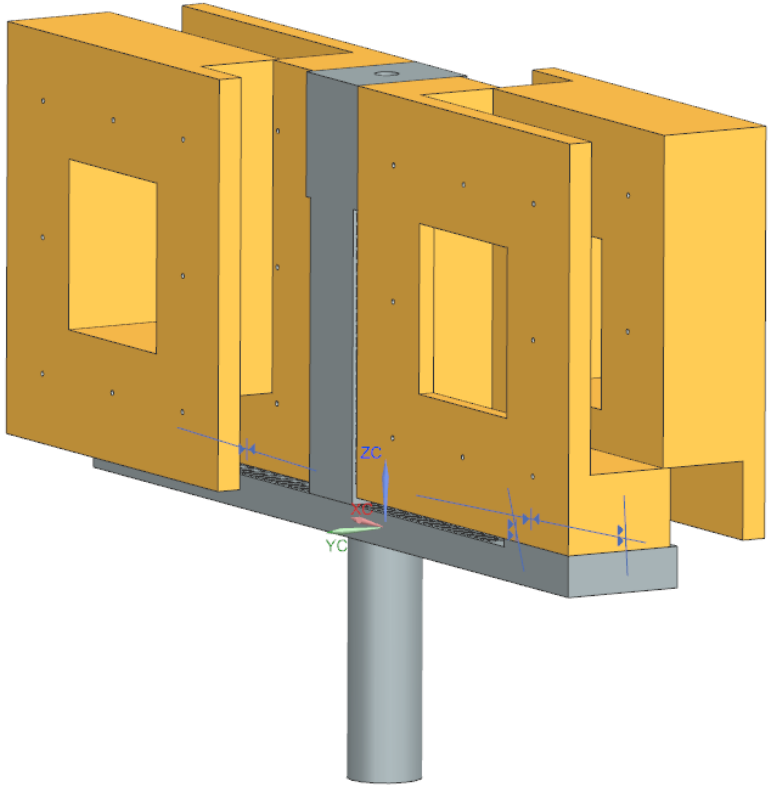


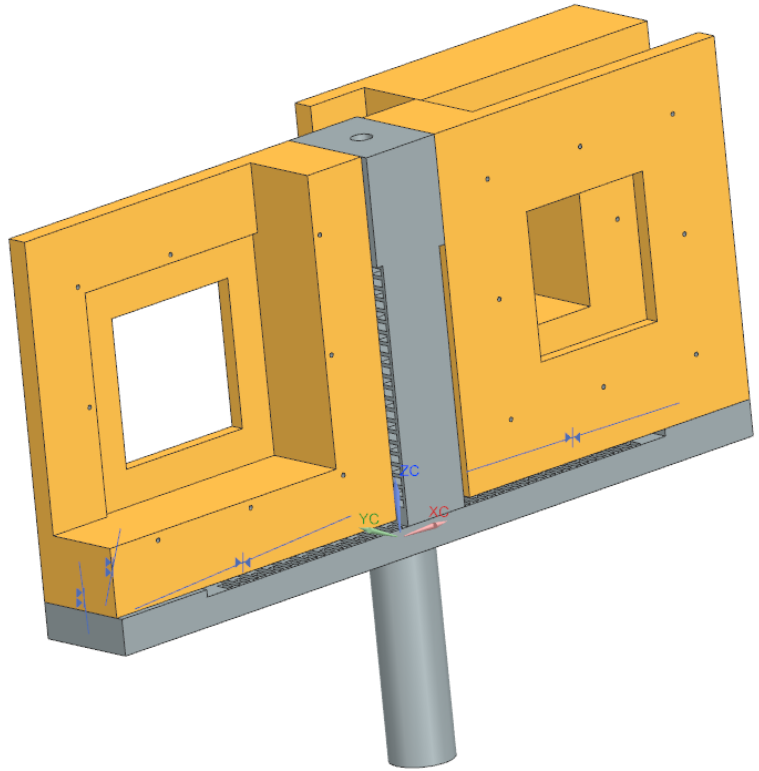


Final result of the dispersion calculations

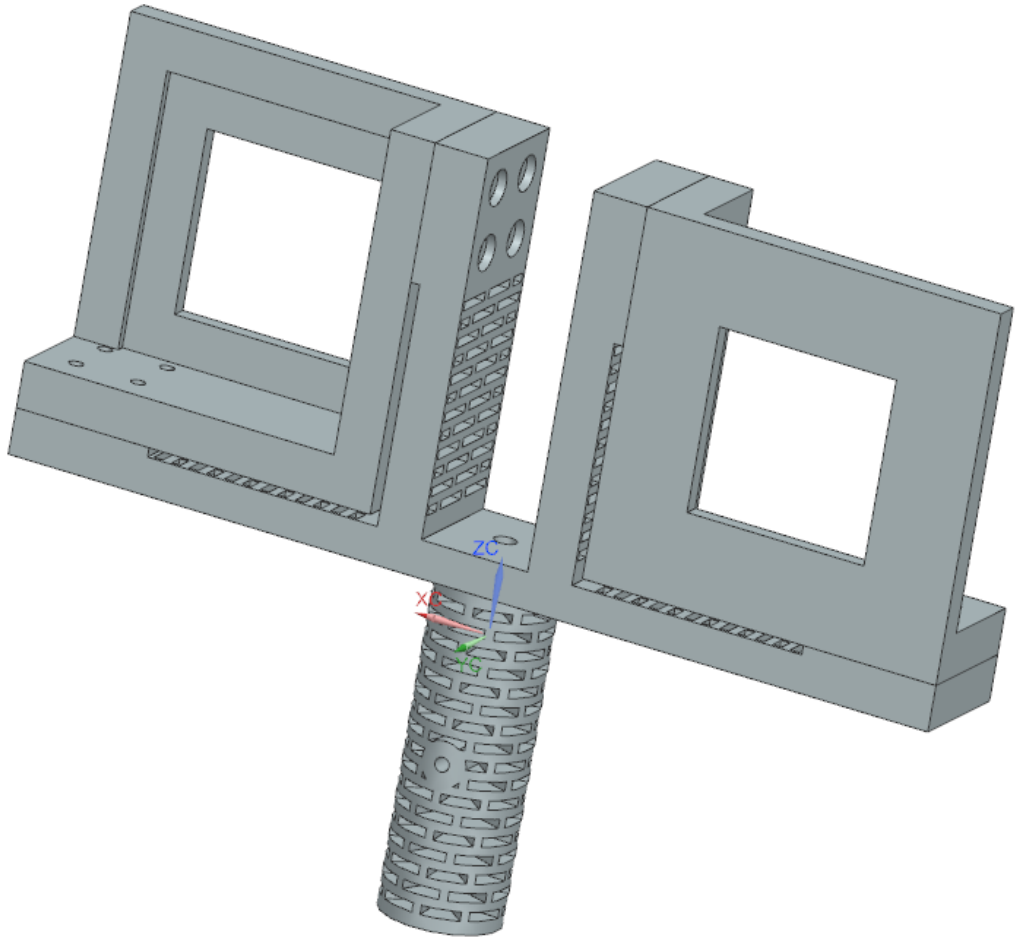


New design
Version 1

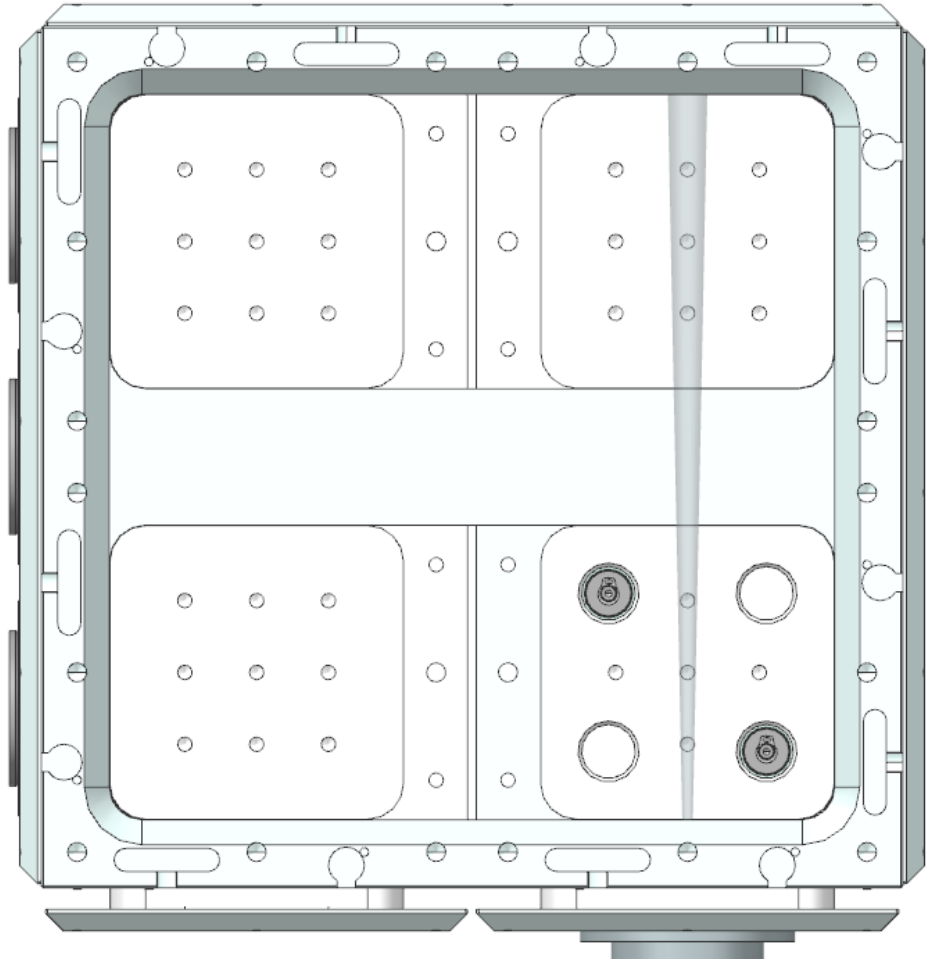


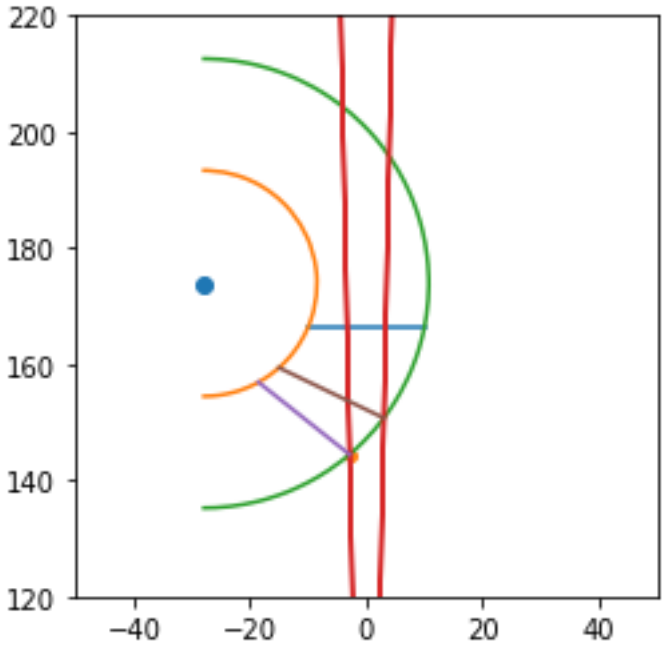


New design
version 2



Angle of incidence the sample makes to the lightbeam

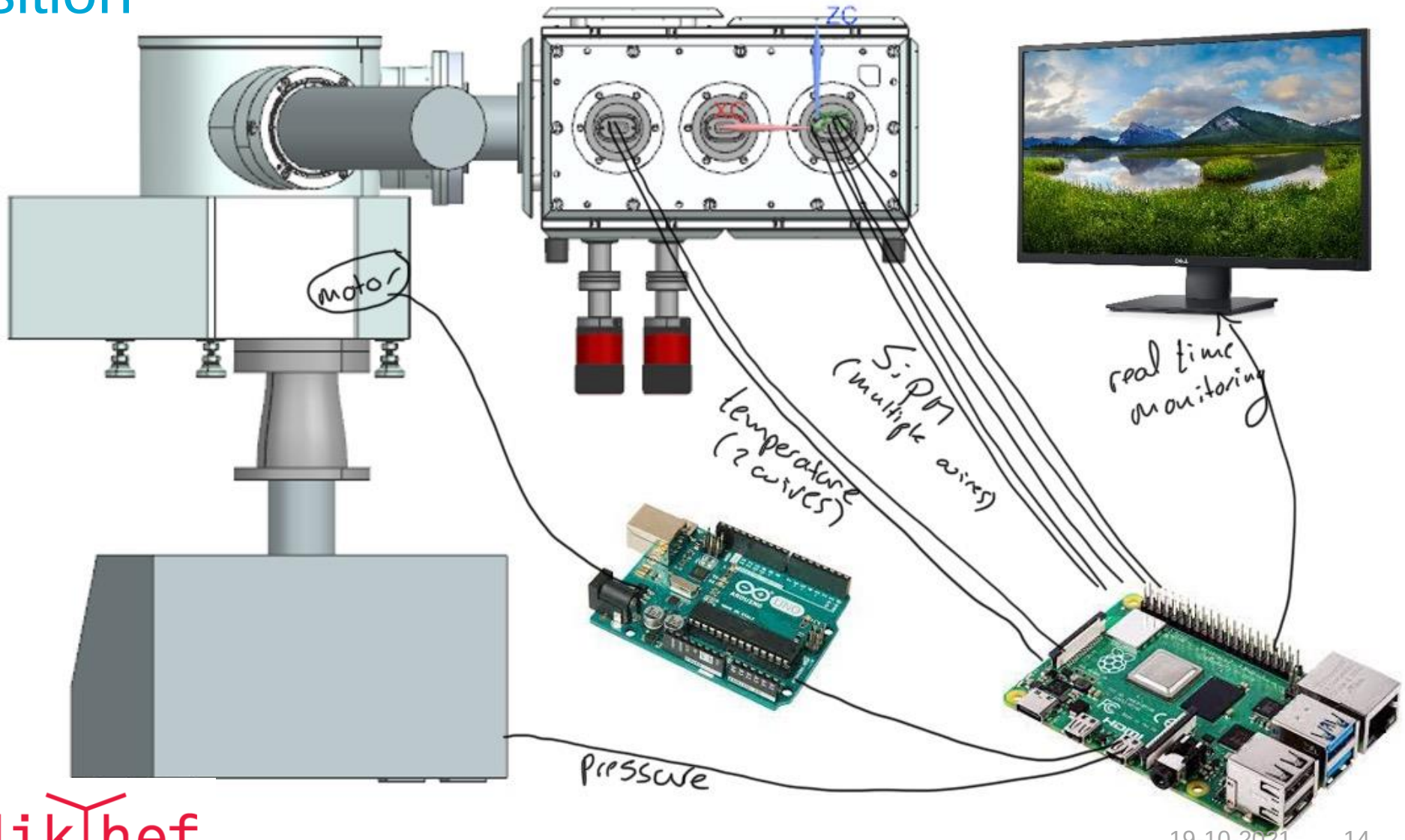




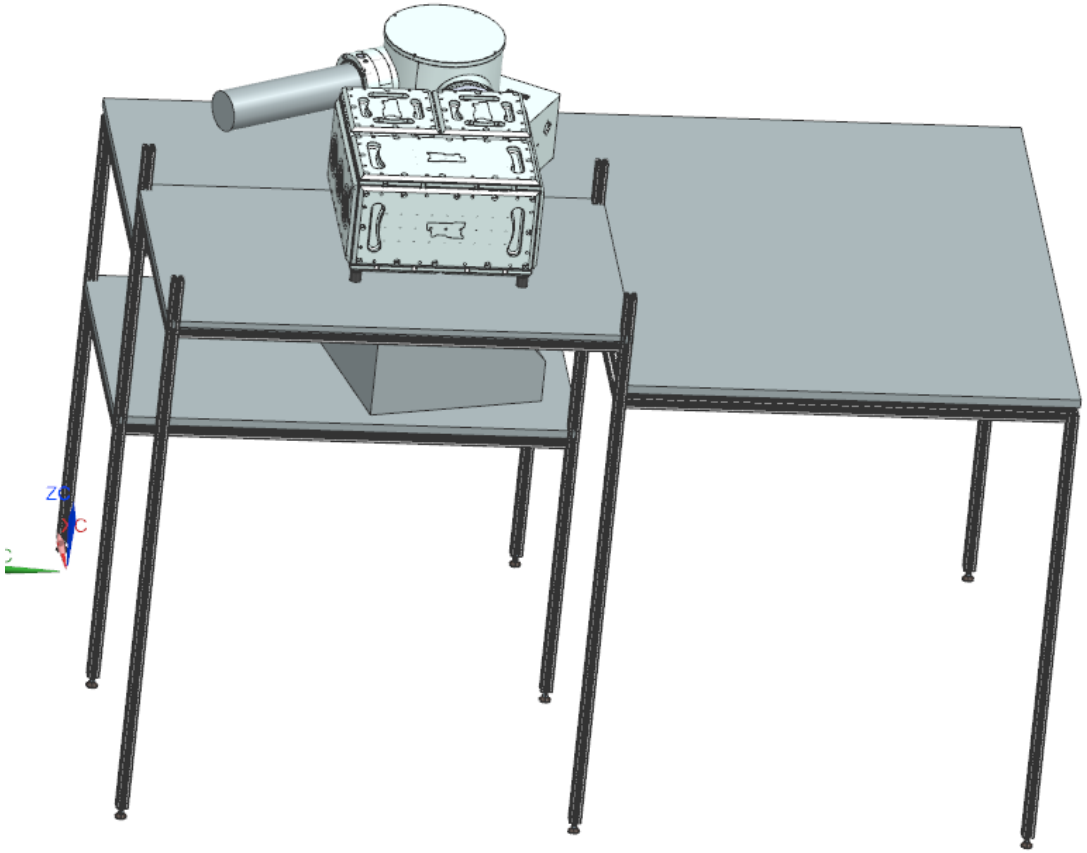
Sample size	Sample offset	Angle up	Angle down
2 [cm]	0 [mm]	45	25
3 [cm]	0 [mm]	52	35
3 [cm]	5 [mm]	57	41

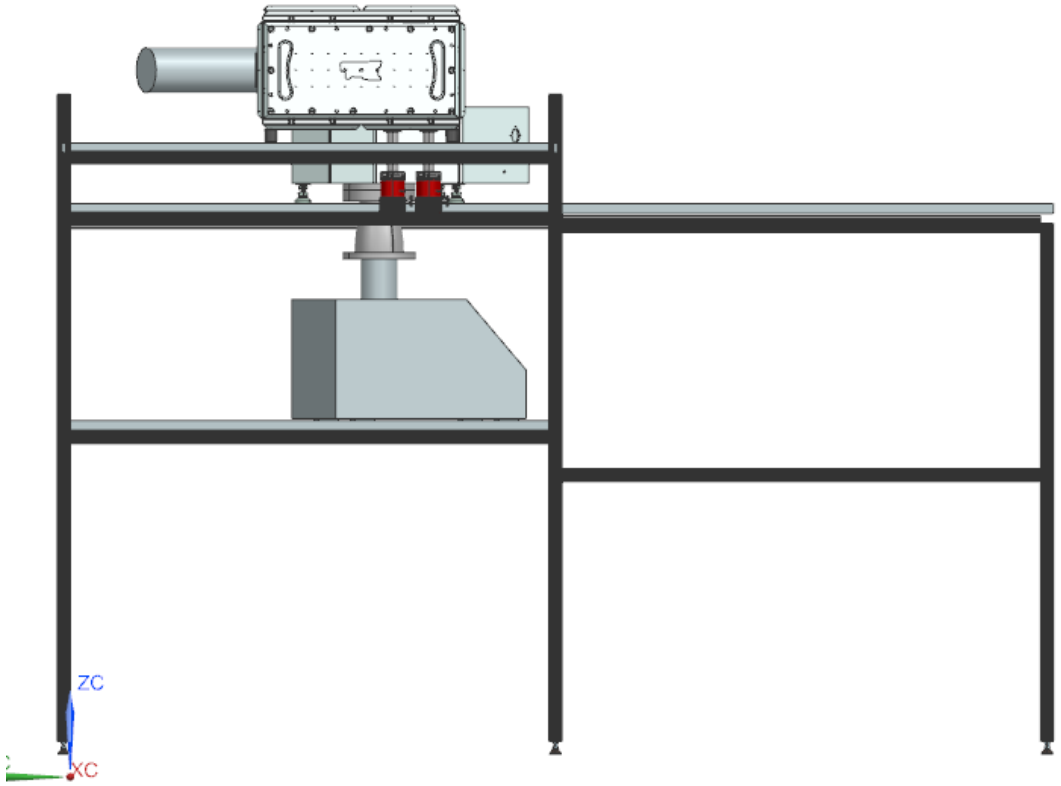
New design
Version 3

Data Acquisition



Designing the table supporting the experimental equipment being able to work in a preferred ergonomic posture





Questions?