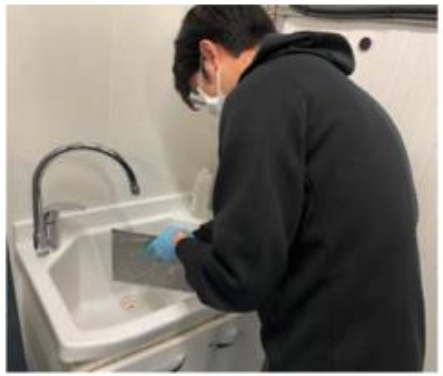
Ideasquare Darkroom - The Beginning

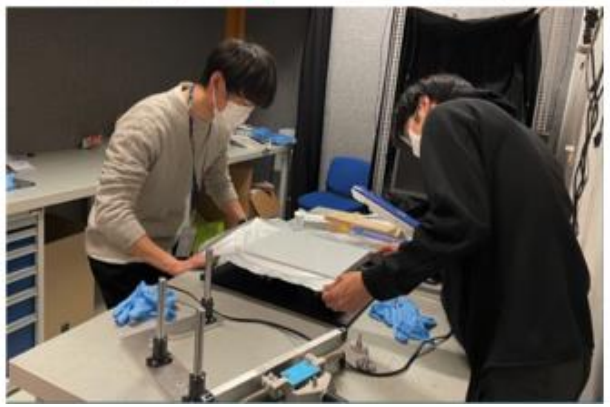
- Darkroom at ideasquare, first built to test 400 8-inch Photomultuplier Tubes for WA105-ICARUS project within CERN Neutrino Platform

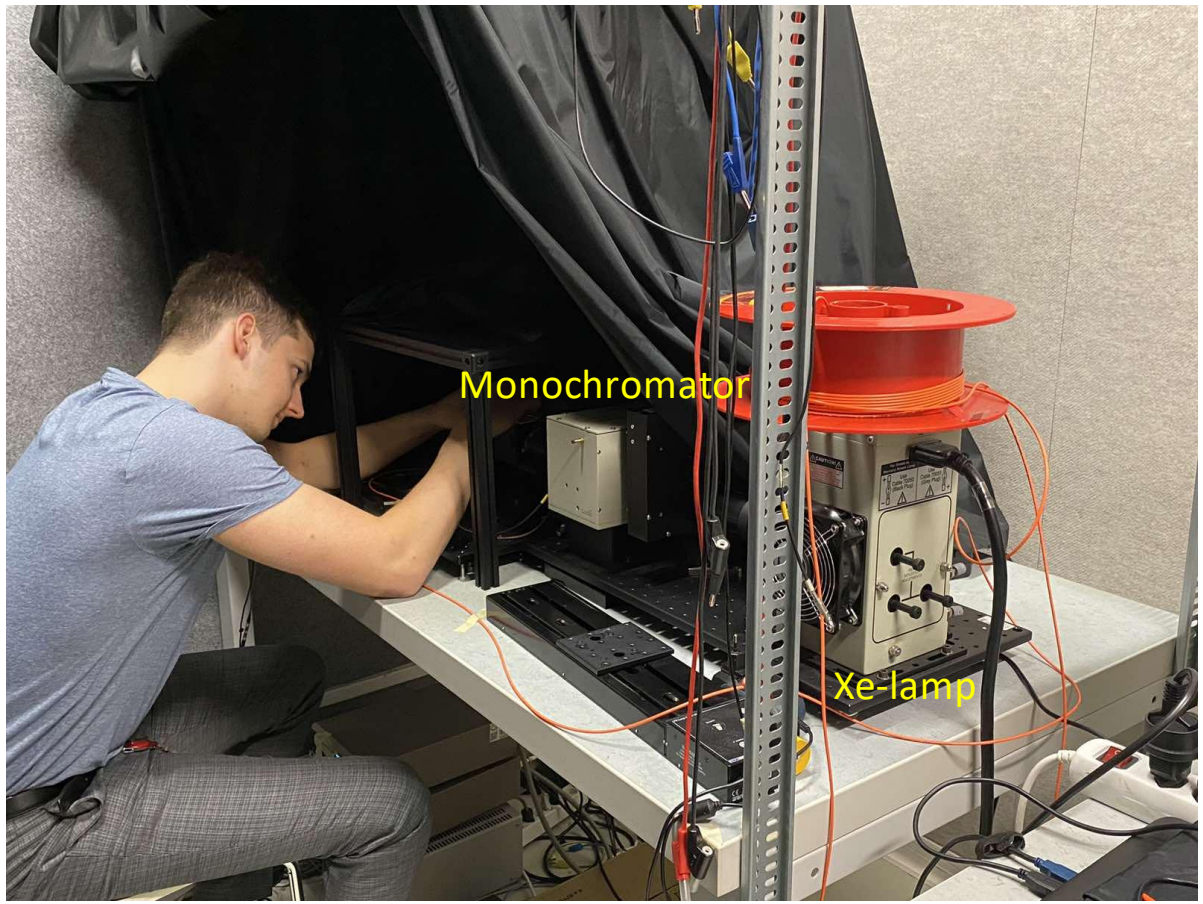
Currently Darkroom equipped with Monochromatic light source used to study:

- Photon detection efficiency of Silicon Photomultiplier
- Light transmission
- Scintillation emission spectra

It is also served as installation facility for SND and FASERNu experiment during first and second LHC runs.







Light Lab at ideasquare

- Equipped with Thorlabs optical table
- It served to CERN Neutrino Platform as a clean room from 2014 to 2020
- R&D projects utilize ideasquare infrastructure:
  - WA105-ICARUS Cosmic Ray Tagger System
  - Alternative photon detection system for ProtoDUNE
  - Feasibility study of power-over-fiber technology
  - T2K SuperFGD
  - Cherenkov Telescope Array project by Geneva University
  - ATLAS RPC group
  - Testing photosensors for Neutrino project
  - Testing 3D printed plastic scintillators
  - Testing Hyper Kamiokande electronics

- Providing expertise in fiber/photosensor technologies.