

Workshops



Mechanical Workshop

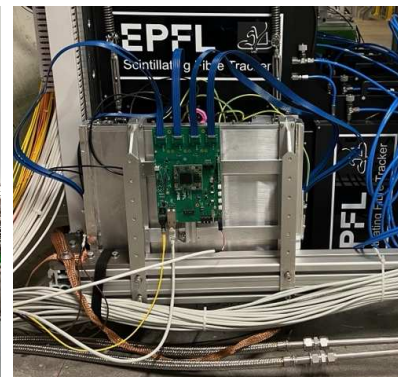
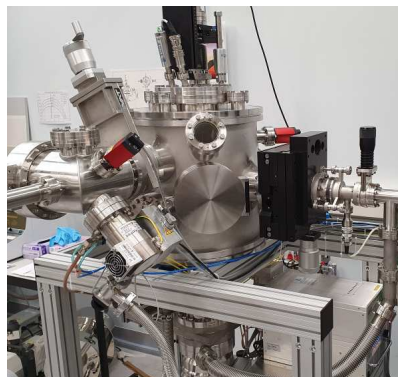
The **mechanical workshop** produces complex parts for all the experiments in house as well as for the large-scale astrophysics and particle physics experiments our groups are contributing to and helps to find solutions for techni-

cal problems. The high competence of the workshop is well appreciated also by other institutes of the university or external companies.

<https://werkstatt.physik.uzh.ch/werkstatt.html>



75

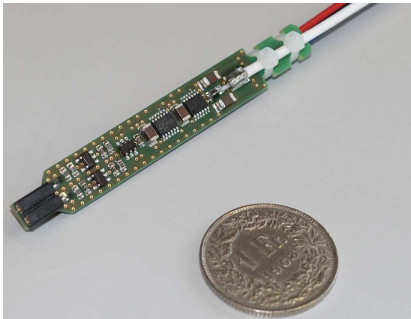


The three photograph are examples for work done in our workshop: (left) upgrade of the calibration system of the LEGEND-200 experiment for the group Baudis; (middle) the new Sputter-System for the group Gibert, here the complete vacuum system was completely produced in the mechanical workshop; (right) the VETO system of the SND experiment for the group Serra.

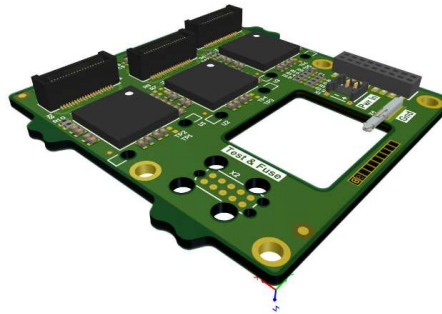
Electronics Workshop

Besides maintenance work for the existing laboratory infrastructure the **electronics workshop** continuously supports the groups of our institute with technical advice, prototypes and new developments for ongoing projects. Besides many ongoing and newly developed projects for the research groups of our institute we developed the PortCard for the CMS group.

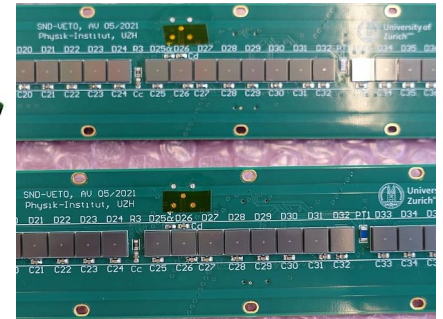
The PortCard (middle figure) has three chips that each combine the data from up to seven sensor modules of the CMS tracker endcap pixel detector (TEPX) - a large-area pixel disk system - and converts them into an optical signal. The challenge in developing the board was the high integration density and the fast signals of up to 10.24 Gbit/s.



Active differential probe with 1 GHz bandwidth.



Layout for the PortCard of the CMS Pixel (TEPX) detector (groups Botta, Caminada, Canelli, Kilminster).



Printed circuit board with silicon PMTs for readout of scintillators of the SND Veto Station (group Serra).