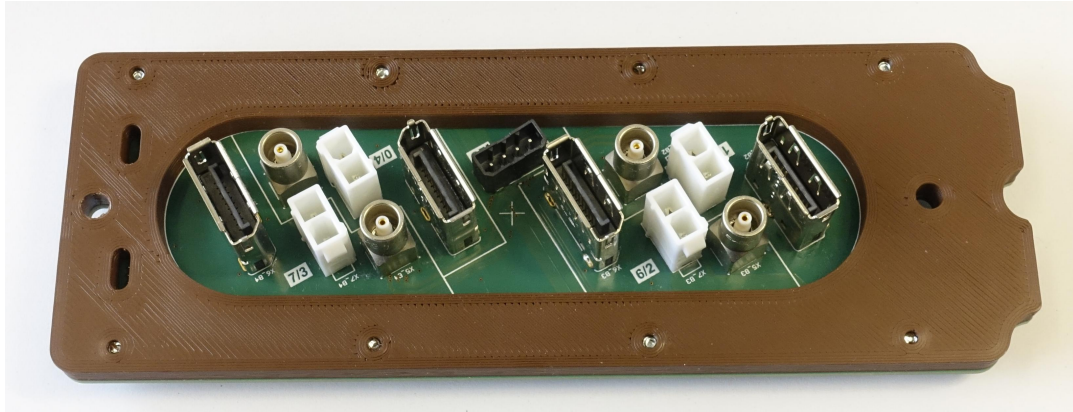


Workshops



Mechanical Workshop

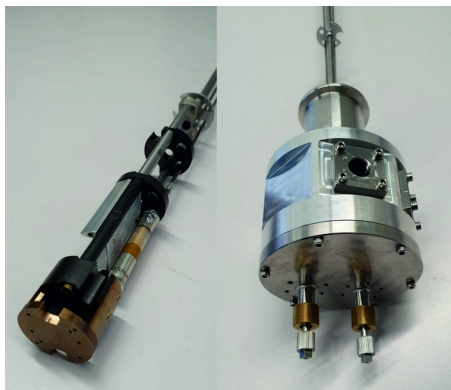
The **mechanical workshop** produces complex parts for all the experiments in house as well as for the large-scale astrophysics and particle physics experiments our groups are contributing to and helps to find solutions for techni-

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>



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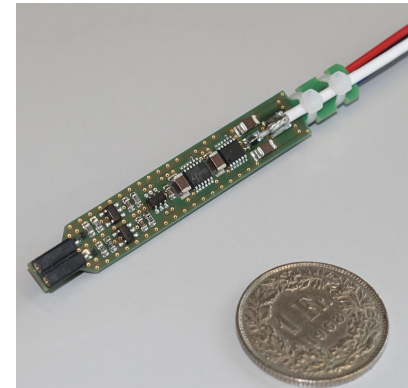
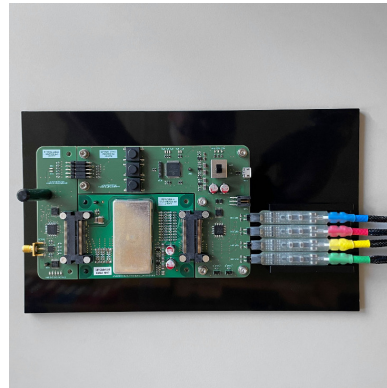
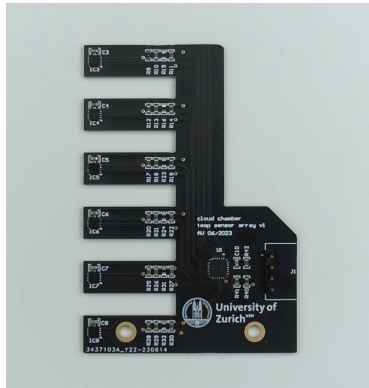


The three photographs are examples for work done in our workshop: (left) sample rod for NMR experiments in the PPMS under uniaxial pressure (group Janoschek); (middle) setup to measure the electrical contact resistance between two metal contacts (copper) at room temperature and at liquid nitrogen temperature as a function of axial pressure (group Natterer); (right) example of a complex component.

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. Apart from many ongoing and newly developed projects

for the research groups of our institute we designed a current pulser to deliver up to 12'000 A in a short pulse to allow a coil to generate a magnetic field of up to 50 T. The voltages and currents involved in this design required special precautions to provide human safety.



Left: 6-channel thermometer to measure the temperature gradient inside the cosmic ray cloud chamber. Middle: Semi-automatig testing jig for DAMIC-M frontend boards. An integrated microcontroller generates stimuli to check for connectivity and passive component values. Right: Active differential probe with a bandwidth of 1 GHz and interface to LeCroy oscilloscopes.