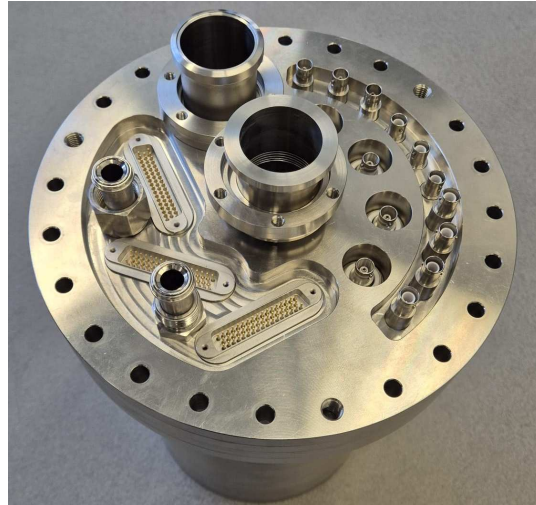


Workshops



Stainless-steel vessel for the ALPINE detector,
group Penning.

Mechanical Workshop

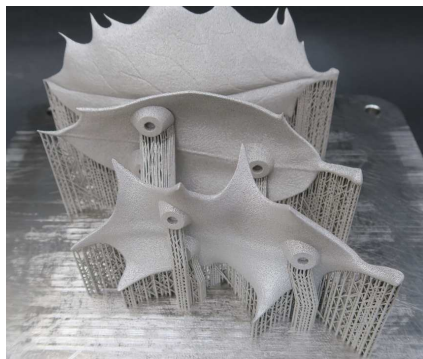
The **mechanical workshop** produces complex parts for all the experiments in house as well as for the large-scale astrophysics and particle physics experiments our groups are contributing to and helps to find solutions for techni-

cal problems. In the last years, the workshop has expanded its expertise to include additive manufacturing of metals (3d printing) which allows to produce highly complex geometries.

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



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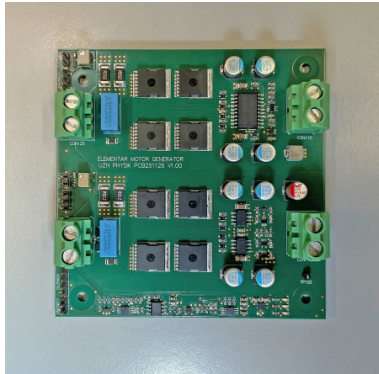


Three examples for objects produced in the workshop: (left) Holly leaves (3D-printed in metal), Naturhistorisches Museum; (middle) various small parts; (right) DAMIC@Zurich Cyostat & CCD Module Support, group Kilminster.

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 a radiotelescope with a dish size of 1.8m was set up on the roof of building Y36 to enable observation of natural and artificial signal sources in frequencies between 1.7 GHz and 8.4 GHz for bachelor and high-school student projects.



Left: high current coil driver plus differential high gain amplifier for demonstration experiments; Middle: 15 kA current pulser with redundant safety circuit to generate high magnetic fields with small coils for the Chang group; Right: 1.8m radiotelescope on the roof of Y36.