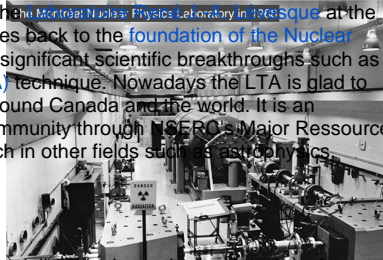


## Laboratoire Technologique Avancé

The Laboratoire Technologique Avancé (LTA) is located at the [Montreal Nuclear Physics Laboratory in 1968](#) at the Université de Montréal (UdeM). It has a long history that dates back to the [foundation of the Nuclear Physics Laboratory at UdeM in 1966](#). It has been the site of significant scientific breakthroughs such as the [invention of the Elastic Recoil Detection Analysis \(ERDA\) technique](#). Nowadays the LTA is glad to offer advanced technical solutions to researchers from all around Canada and the world. It is an important resource for the Canadian subatomic physics community through NSERC's Major Resource Support (MRS) Program, but also supports scientific research in other fields such as astrophysics, neuroscience, medical physics, medicine and engineering.



The LTA services are threefold:

- [Groupe technologique](#): an electronics laboratory specializing in the end-to-end design of electronics readout systems, including custom-board fabrication and data acquisition systems. It also offers firmware and software coding services
- [Machine shop](#): our highly-specialized machine shop has a long experience of collaborating with researchers to offer them custom solutions for the design and fabrication of their custom-made scientific equipment
- [Ion beams facility](#): a 6 MV Pelletron Tandem accelerator that is able to produce protons and other ion beams, as well as mono-energetic neutrons for the calibration of dark matter detectors

The rates and contact information for each service are described in the corresponding links above. You can make a service request on the [IPP website](#).