

Charge to mini-review
June 12-13, 2016 at Fermilab

protoDUNE represents a crucial step in further development of the DUNE project, both as a large-scale demonstration and validation of the engineering design for DUNE as well as a platform for understanding the capability of the DUNE TPC as an unprecedented instrument for neutrino physics. protoDUNE is the first major hardware project being undertaken by the DUNE Collaboration. It is also proposed on a very ambitious schedule in order to take beam data in summer 2018 at the CERN Neutrino Platform. CERN is investing heavily in development of the infrastructure for the Neutrino Platform, as well as the beam lines, cryostats, and cryogenics required. The proroDUNE projects are being executed as major international projects at a scale comparable to a major experiment.

Now that initial organization and planning is in place, it is critical to review in depth the protoDUNE projects. The goal of the LBNC mini-review is to provide an in depth review of the following areas of planning for execution of protoDUNE-SP and -DP projects:

- Organization, including common areas between the two projects, and project management, including design review planning, QA planning, change control, schedule and milestone planning;
- Adequacy of resource planning, status of filling key positions and plans for ramping up presence at CERN;
- Identification of major areas of technical risk and assessment of mitigation plans, R&D strategies, as well as the range of potential impacts on schedule or resources; and
- State of engineering design development for major systems, including the TPC hardware systems and the electronics system;
- State and plans for overall integrated system design and testing;
- Feasibility of planned schedule and range of uncertainties, including basis of estimate, identification of key milestones, options for schedule improvements through additional resources, options for mitigation based on major risks.

The mini-review should be prepared to discuss initial findings, comments, and recommendations with the LBNC on Monday evening, June 13.