

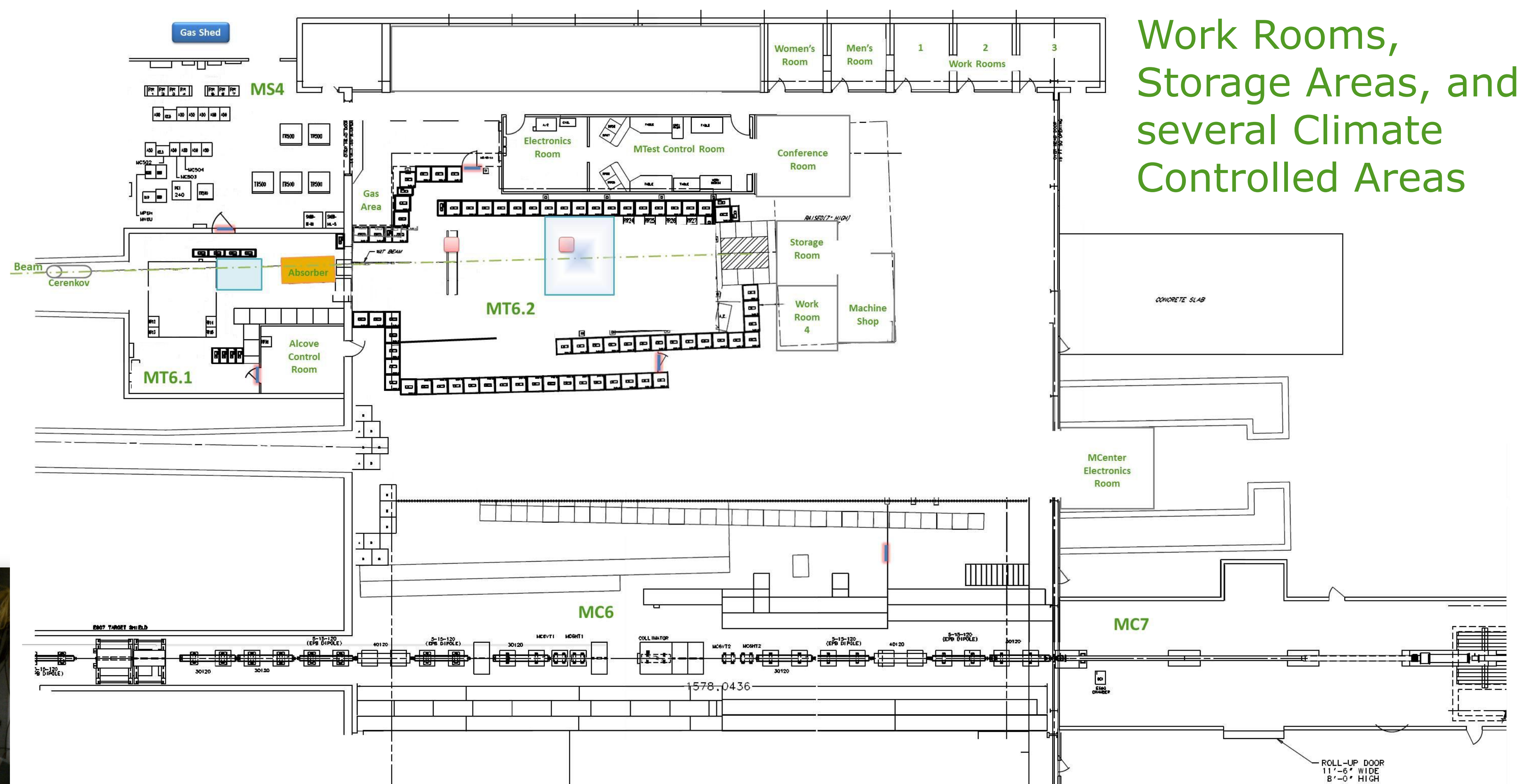
Fermilab Test Beam Facility

<http://www-ppd.fnal.gov/FTBF/>

poster by Aria Soha

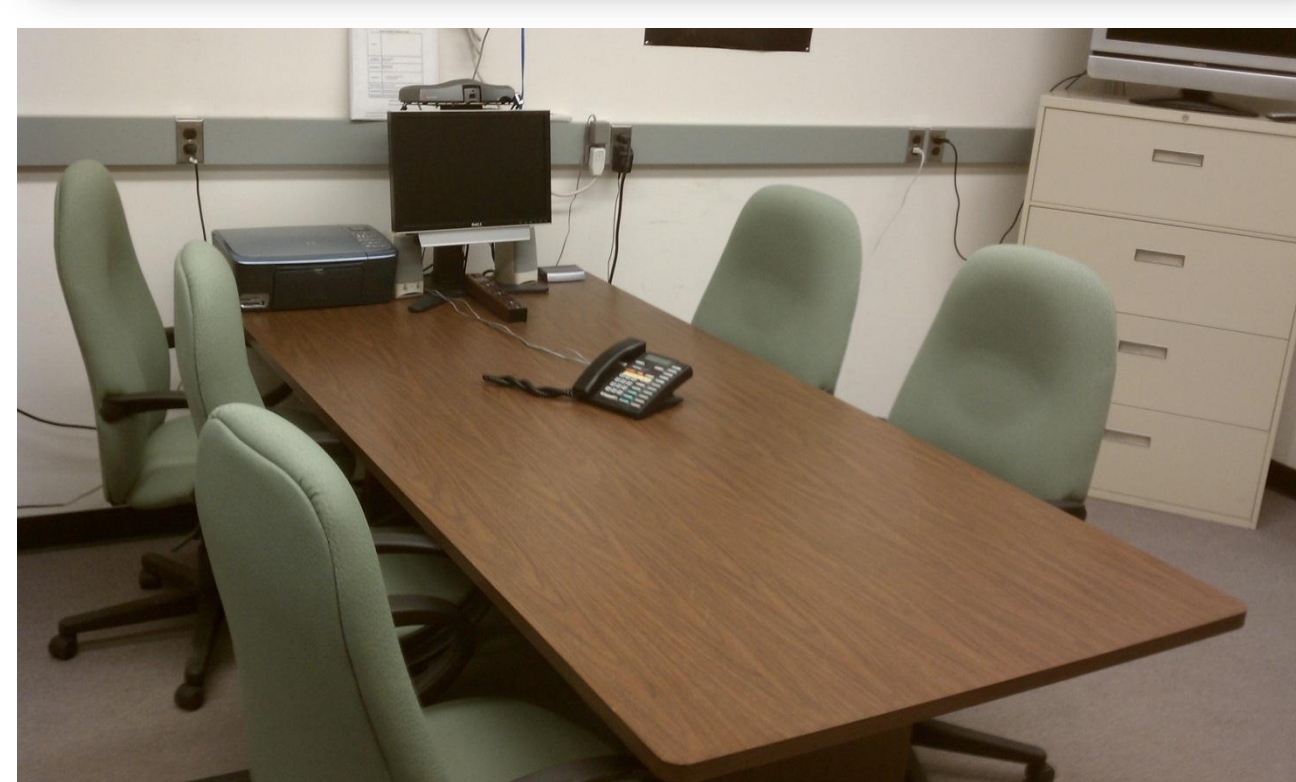
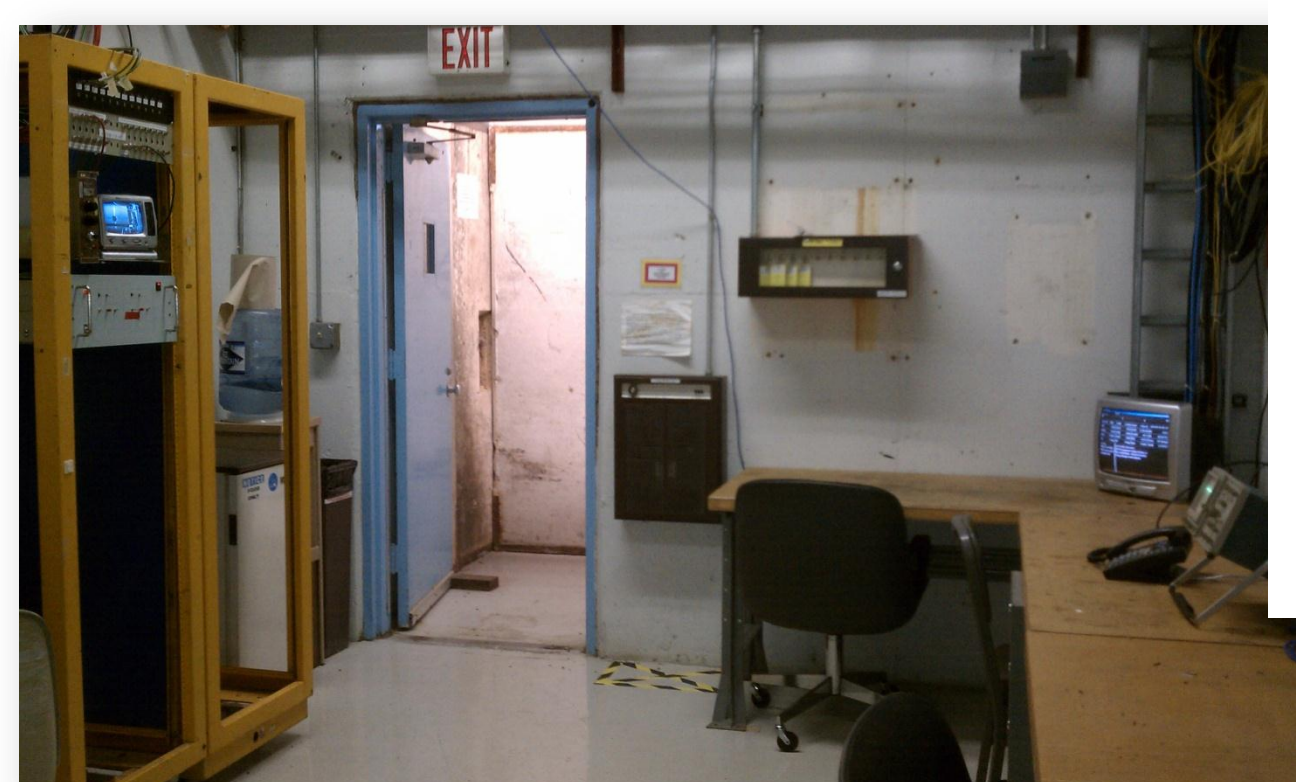
Beam Types

- **120 GeV: Protons**
- **66 - 8 GeV: Pions**
- **32 - 1 GeV: Pions, electrons, kaons, or broadband muons**
- **1 GeV - 200 MeV: Protons, pions, kaons** (Only available in 'Tertiary' Beamline)



Work Rooms, Storage Areas, and several Climate Controlled Areas

Multiple Control Rooms, Conference Room



Tech Area (requires additional training)



Beam Detectors and Instrumentation



Time of Flight System



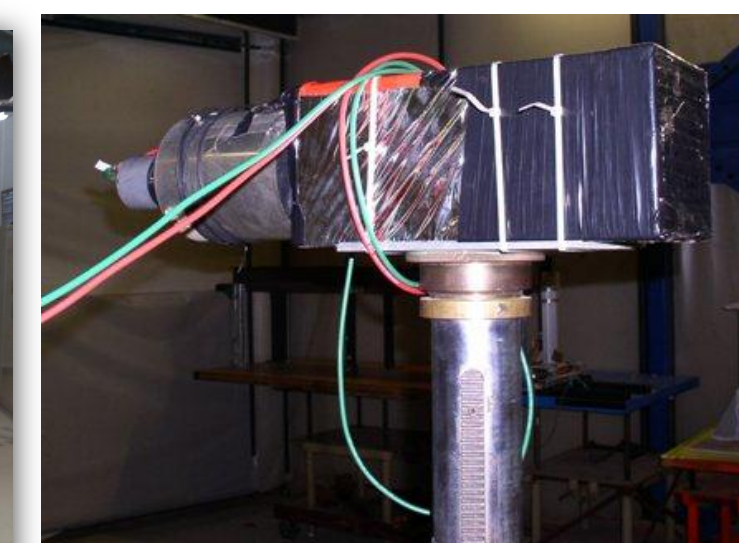
2 Čerenkov Detectors



Pixel Telescope



4 MWPC Tracking System



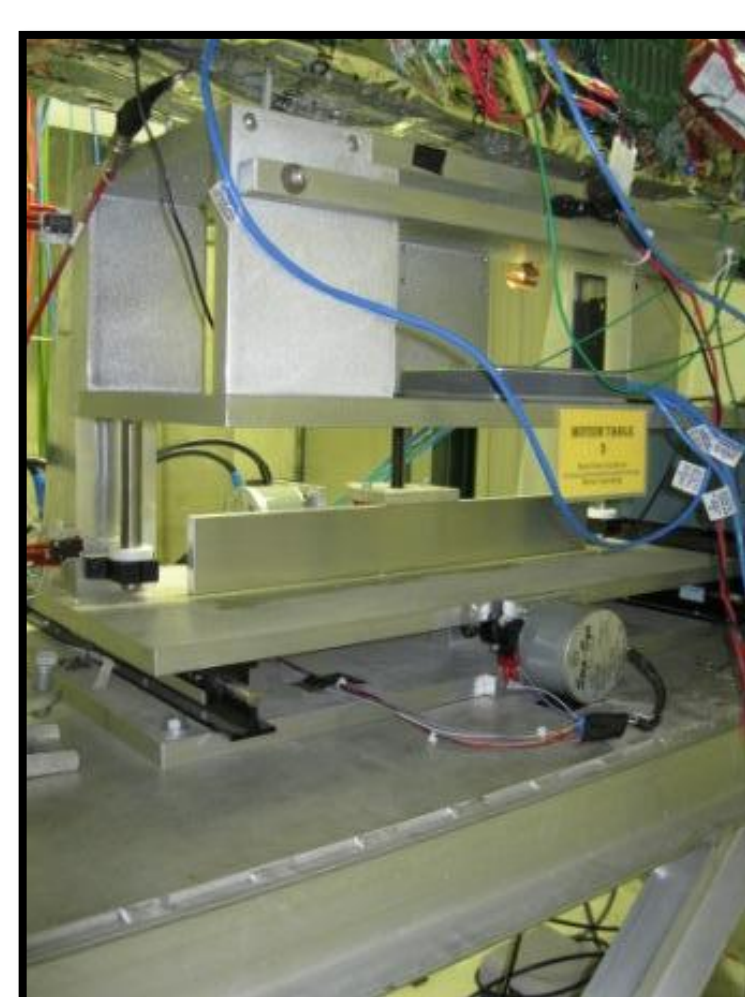
Lead Glass Calorimeters



Plus Assorted Scintillator paddles

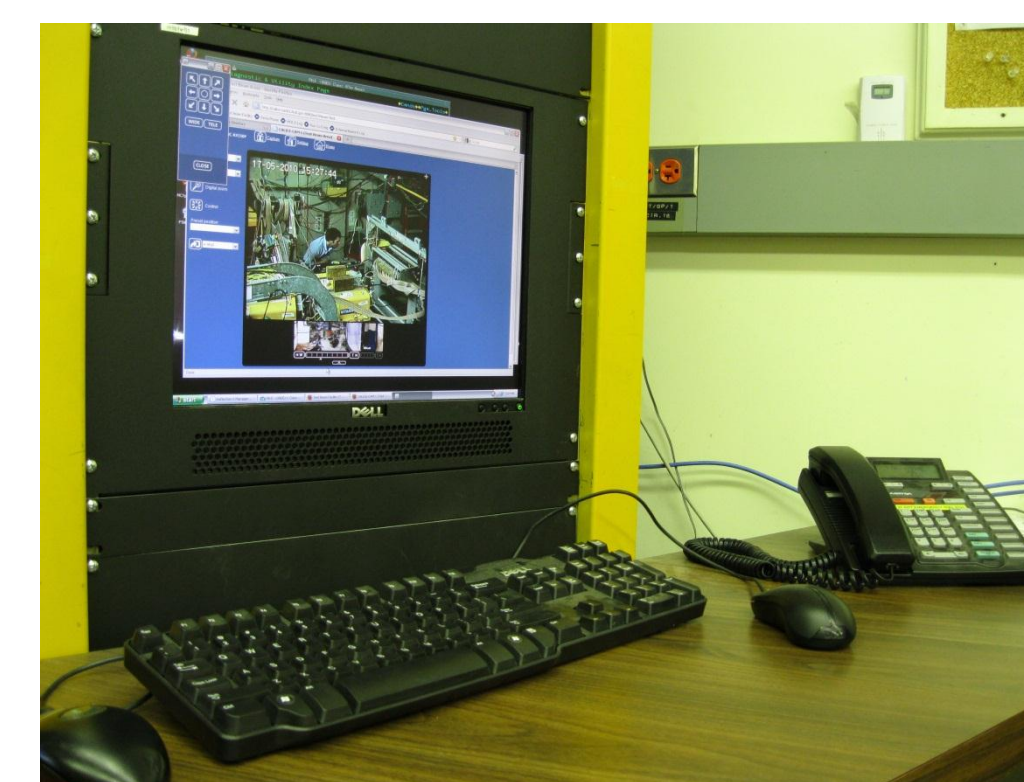
Motion Tables

The Test Beam Facility has three motion tables, all of which can be monitored and adjusted from the control rooms during beam operations.

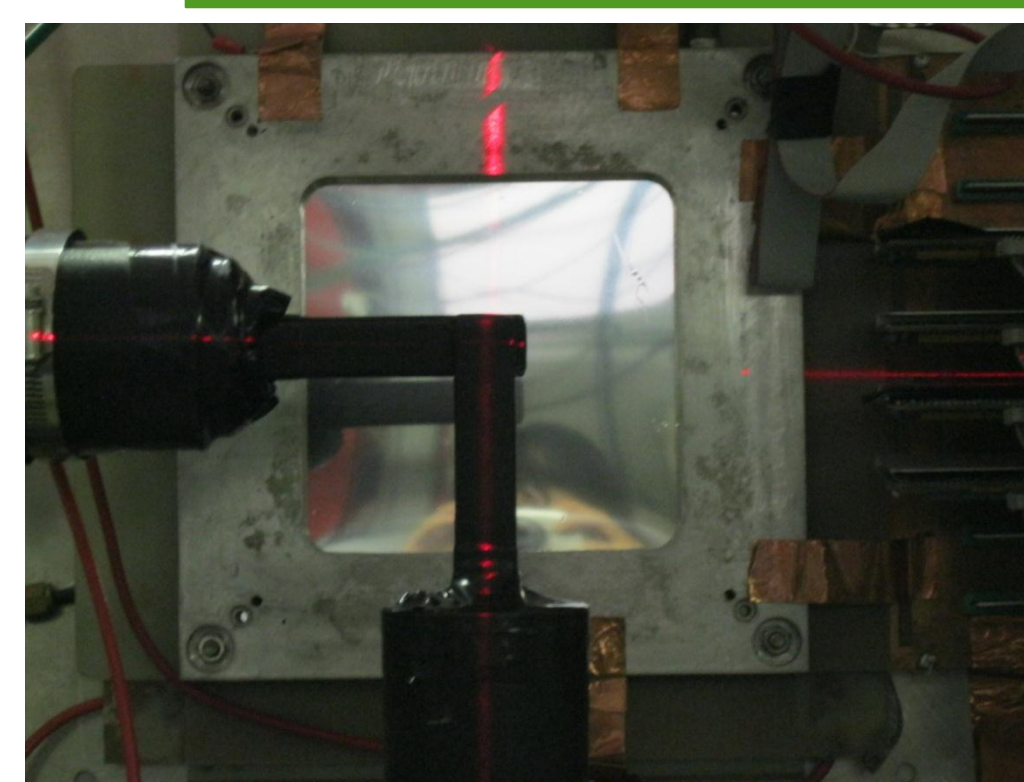


Web-based Cameras

State-of-the-Art, web-based cameras with 26x optical zoom, to see inside Enclosures while beam is running

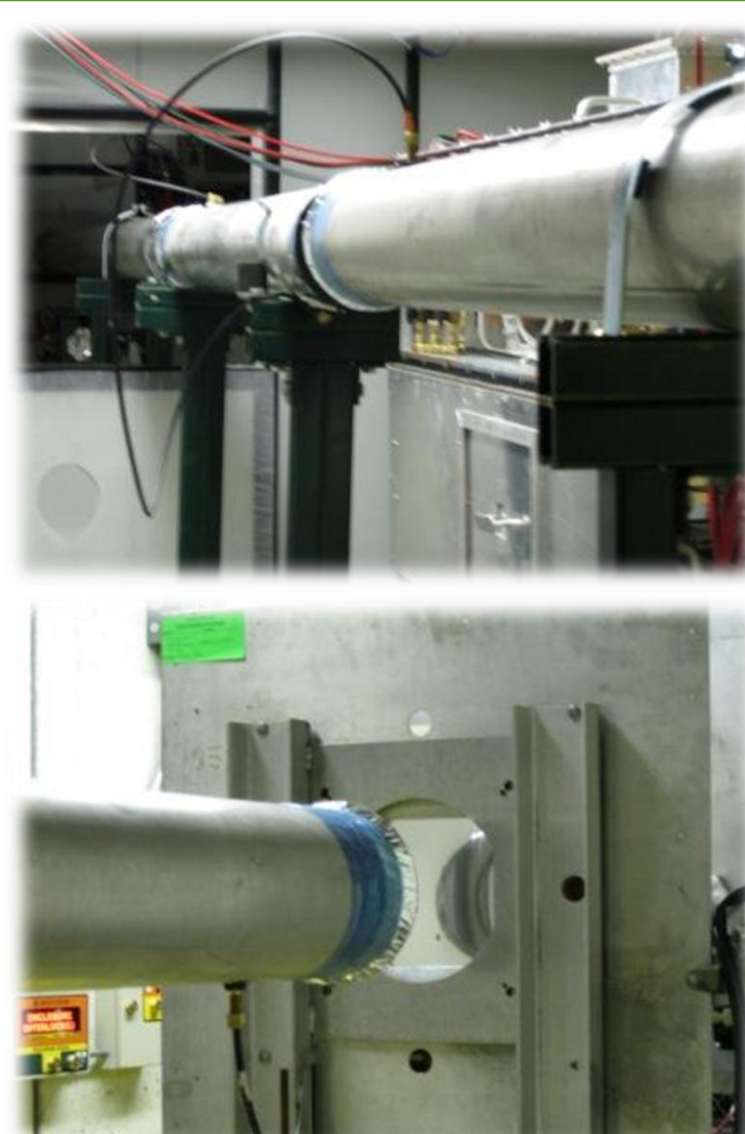


Laser Alignment



The MT6.2 Enclosure has a system of lasers installed so users can determine the exact location of the beam (x and y planes), and setup their apparatus accordingly.

Helium Tubes

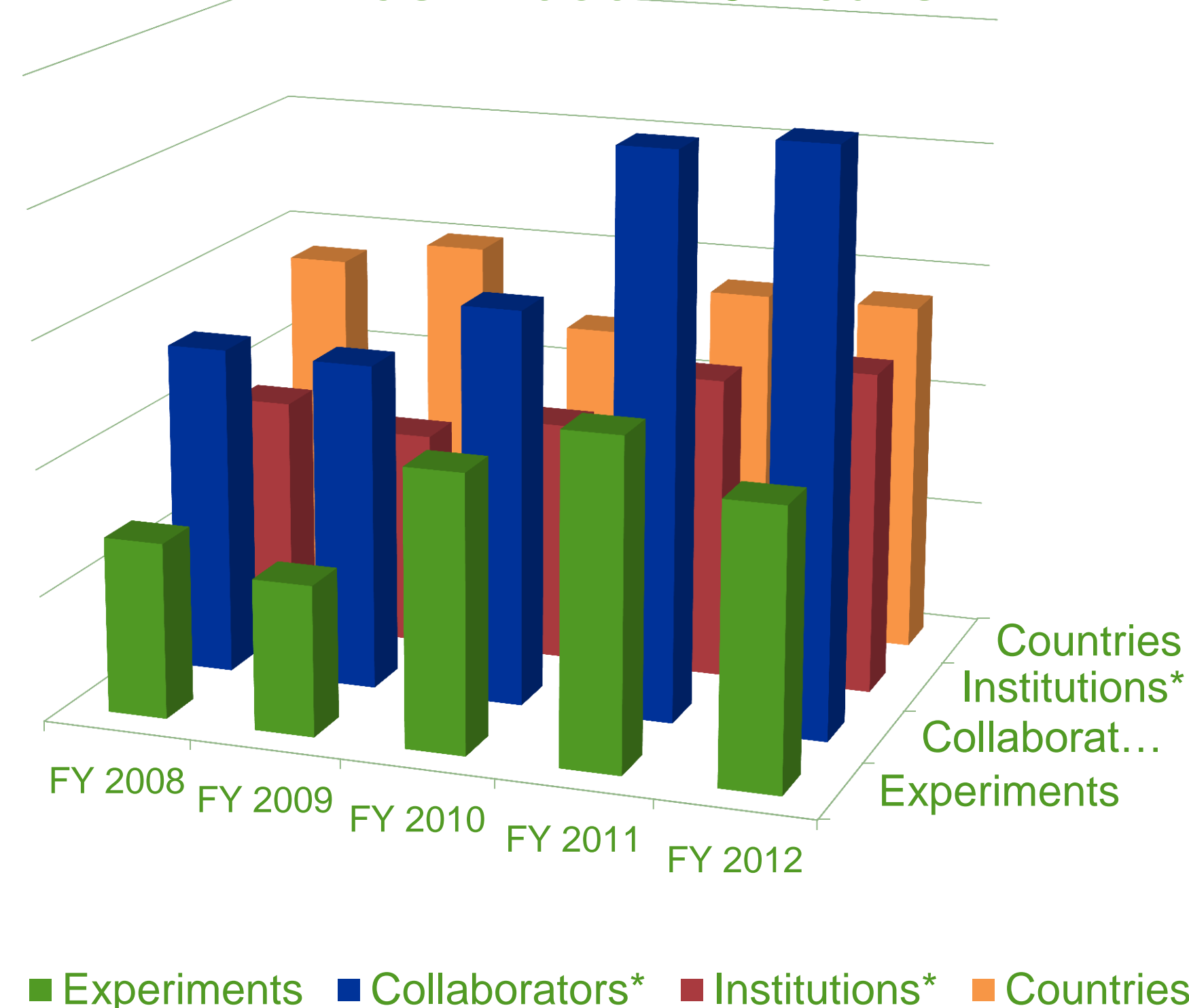


A make-shift beamline can be installed and filled with Helium gas to reduce beam scattering in air

Performance

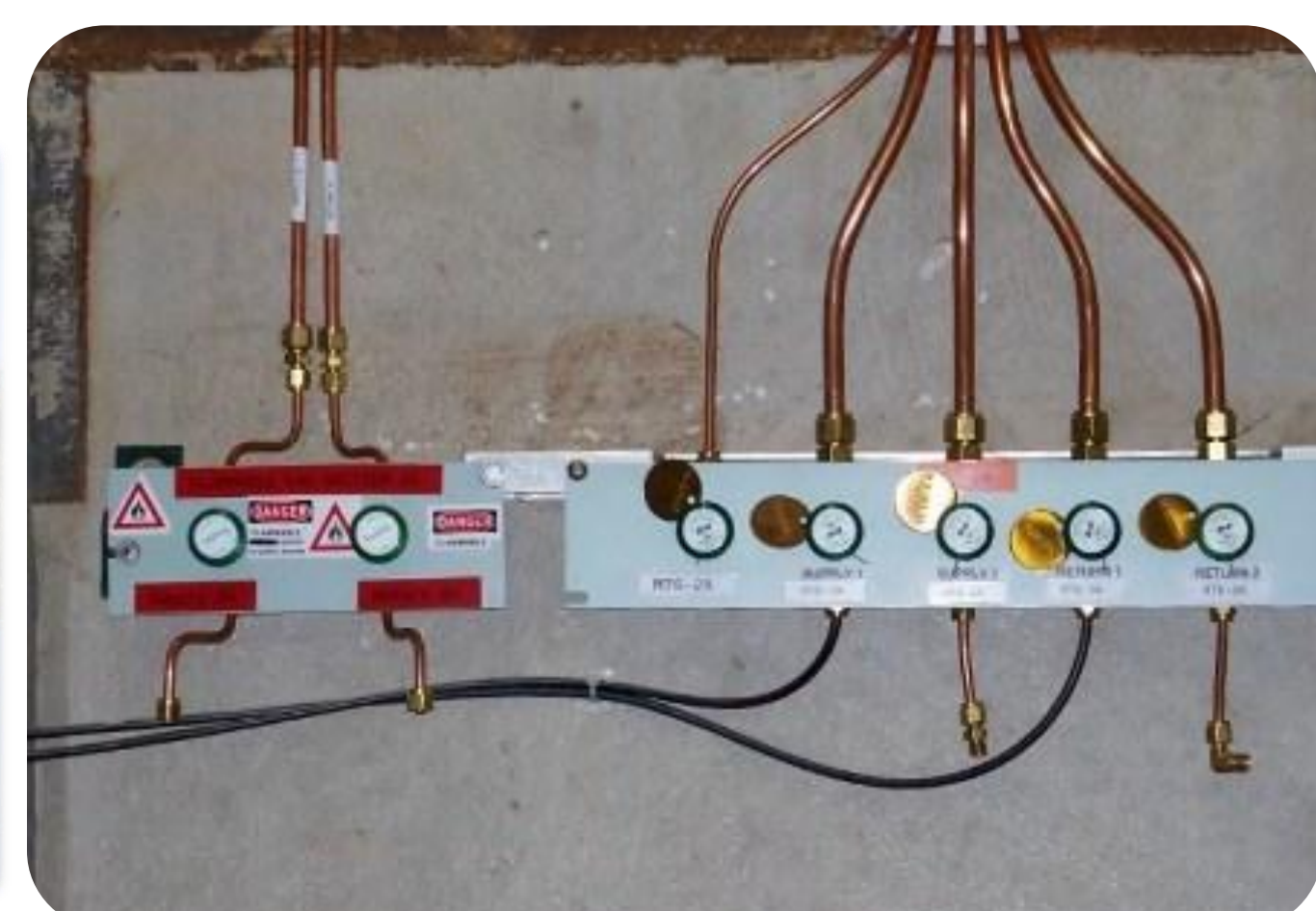
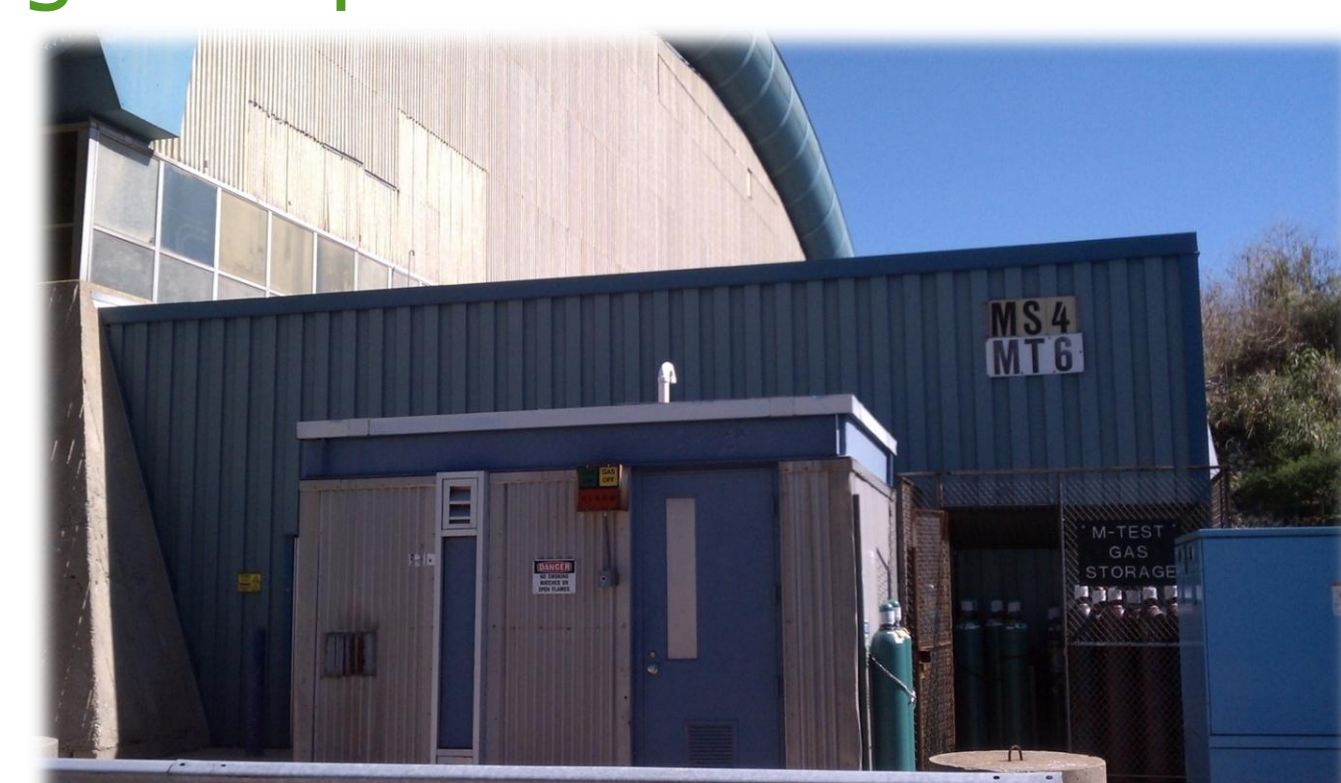
Since 2005 the Fermilab Test Beam Facility has served 41 experiments, with 592 collaborators, from 132 institutions, in 23 countries!

Most Recent 5 Years



Gas Delivery

MTest is outfitted with a gas patch panel system, which delivers gas to 6 locations, 2 of which have flammable gas capabilities.



Signal and High Voltage cable patch panels

