

IPRO 333 FAB LAB

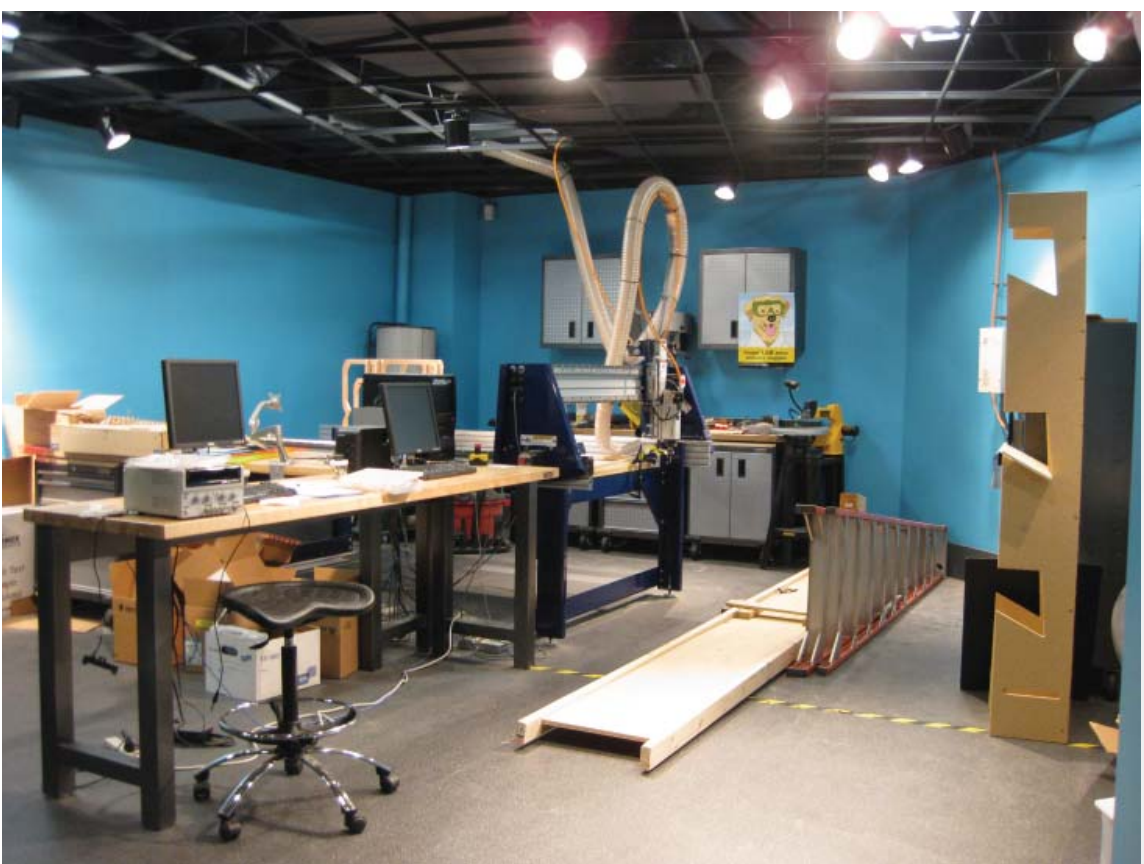


Fab Labs were developed by MIT as a program to allow easy access to rapid prototyping capabilities. These labs focus on the use of digital fabrication technologies linking tools with computers to create a faster, safer process. There are currently thirty-nine Fab Labs world-wide which act as outreach programs catering to the fabrication needs of the community. The Fab Lab at the Museum of Science and Industry was created as an opportunity for education about these fabrication technologies for the city of Chicago.

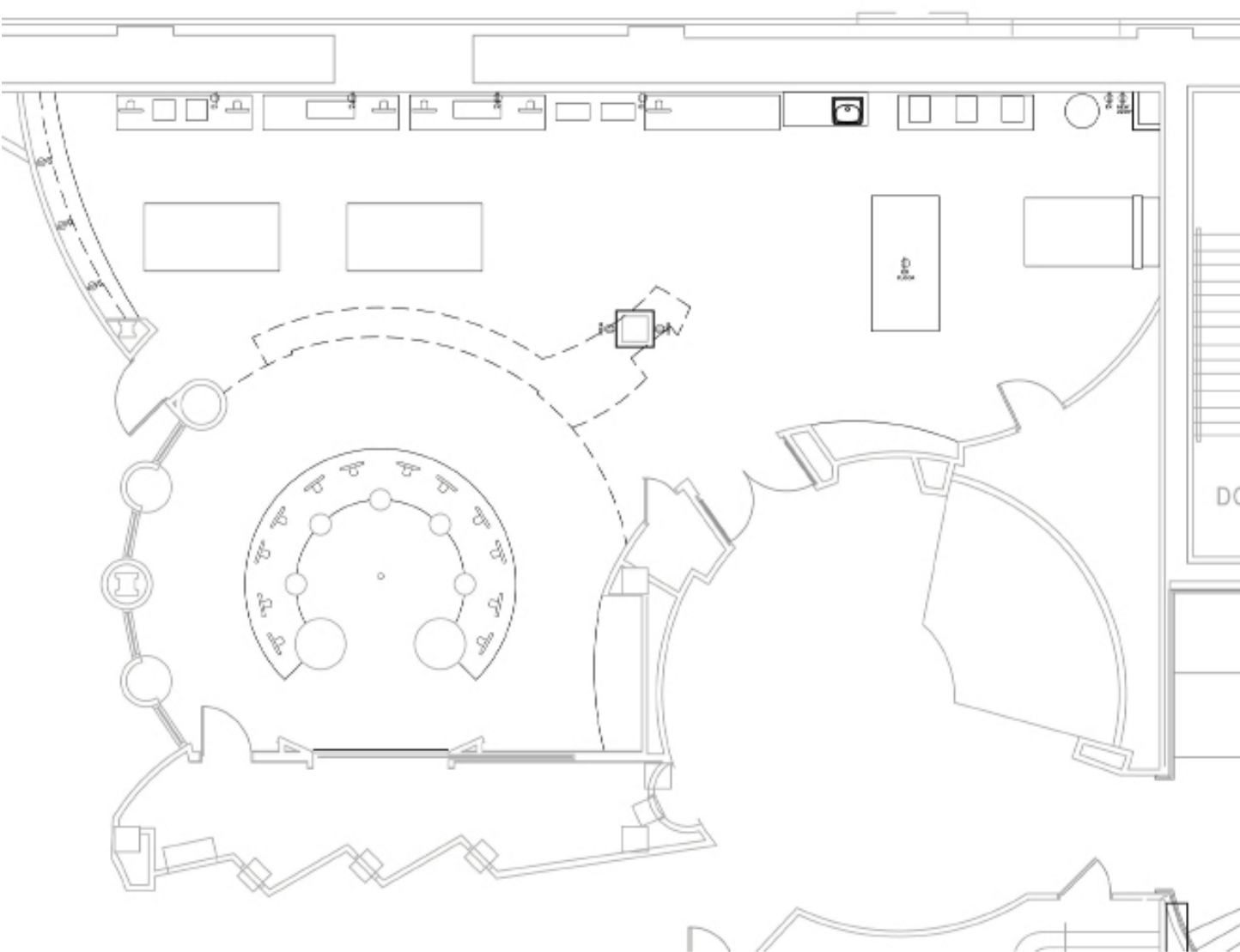
IPRO 333 began working with MSI this semester to broaden the scope of its programs. We researched Fab Labs around the world and learned about the software and tools used in the lab. We visited the lab at MSI often to understand the special need of this lab and get familiar with the programs already being offered.

IPRO 333 – Fab Lab is working with MSI to reach their goal of broadening the capabilities of the Fab Lab. We are currently researching possible programs to develop for the lab. Our goal this semester is to gather information to aid in developing programs for students in grades 2 – 8, members of the museum, and general visitors, as well as further the Science Achievers program. The students are a group which we have been focusing much of our attention on; they would visit the museum on school field trips to work on projects which would supplement their current studies in class. To accomplish our goal we have been visiting local schools, to talk to teachers and students and conduct surveys. We have also been in contact with several members of the Chicago Public School district to gain knowledge on the Chicago science curriculum and state education standards.

As this is an ongoing project, it will be continued in future semesters with new students taking control. Our main objectives this semester are to establish a positive working relationship with MSI, reach out to contacts who will aid the project for the long term, and conduct the necessary research so that future semesters of this IPRO can continue to develop quality programs for the Fab Lab.



Area with CNC machine.
Area for proposed safety wall partition

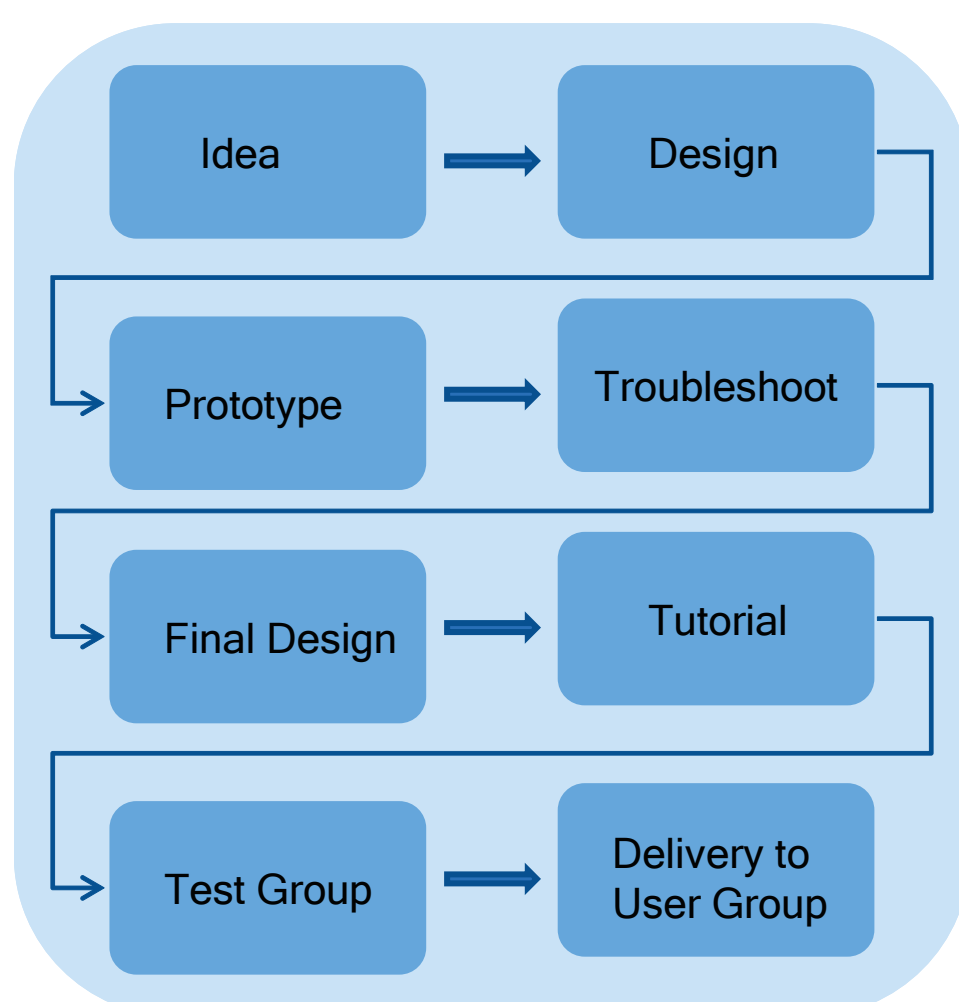


Plan of the MSI Fabrication Laboratory

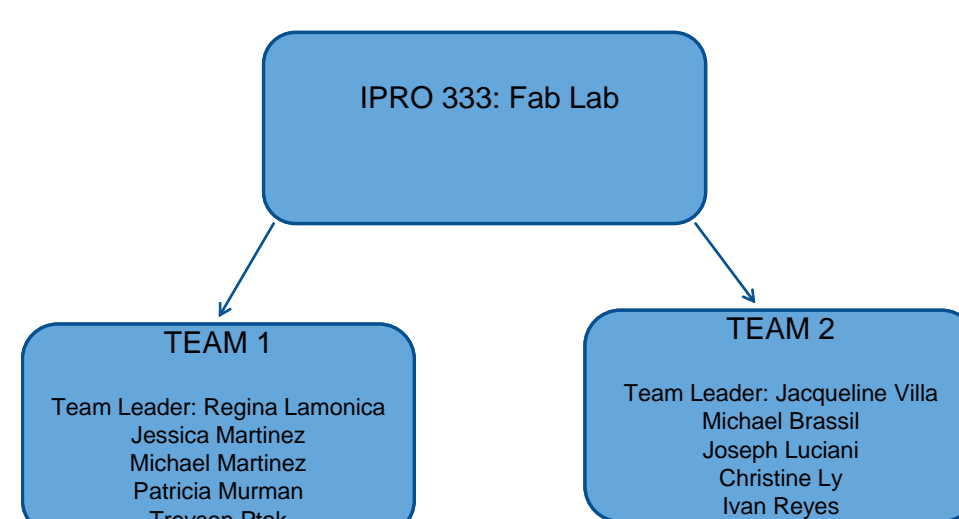
Goals For This Semester

- To develop an organization and knowledge base for the lab, starting this IPRO with a good base for its future
- -List and research all possible improvements, and future projects.

Project Development



After researching fabrication laboratories, and looking over the lab at the Museum of Science and Industry (MSI) we came to the conclusion that we needed to both work on education programs and the organization and information in the lab itself. We divided the education programs in terms of the different users of the lab: The science achievers, The museum members, Student groups, and Open access users. In addition to this, we have evaluated the safety of the lab, and provided extra information for those currently running it. We broke up into two teams to address these goals.



Future Work

Integrate the CNC

Improve PR for the lab

Materials guide template for laser cutter

Binder of tutorials, with education standards noted

