

7 Final Project

Throughout this course, you have performed experiments that were prepared for you and presented in the lab manual. You have done specific work that was assigned to you. For this final project, you will decide what you want to do. Each lab group will propose a project topic to complete for its final project for this course.

Although you have a fair amount of freedom in selecting your topic, there are some constraints, as follows.

- Your project must make use of some of the material learned in this course.
- The project must include a hardware component.
- The project must be of sufficient complexity and difficulty to match the allotted time. The project may not be so complex that it is very unlikely that students can complete it on time.
- The project must do something that will benefit NJIT in some way. It may do something that improves some aspects of the physical campus, or it may improve how students do something or interact with something, or improve NJIT in some other way.

The first step in the project is to submit a proposal and receive approval for your project. All proposals must be uploaded to Canvas; due dates will be announced in class. The format for the proposal is as follows.

- *Cover sheet*: Use the same format that you use for lab reports.
- *Problem statement*: Describe the problem to be solved.
- *Proposed solution*: If you have already selected a solution to pursue, describe the solution. If not, describe the possible solutions your group is currently considering. You do not need to have a schematic diagram for any circuits in your solution(s), but you should have at least a block diagram and description of its individual sections and how they will be implemented.
- *Timeline*: Show the main tasks needed to design, implement, and test your solution, and your proposed dates for completing each task. Include the time needed to communicate your solution to the problem, the final report and presentation for this project.
- *Division of labor*: Indicate which team member will take the lead on each task and any additional team members who will also work on the individual tasks.