

# BlueStamp Engineering

## Sean C's Build Plan

After a student selects their project with their instructor, he or she must create a Bill of Materials (BOM) listing all of the parts required and write a Build Plan describing the main project. Below is an example of a build plan.

**Name:** Sean C

**Location:** Palo Alto

**Instructor:** Laura Kambourian

**Starter Project:** #1, Useless Machine

**Main Project:** #216: Smart home automation

**Website Link:** <https://bluestampengineering.com/student-projects/student-template-8/>

### Major Steps to complete the project:

1. Make sure all parts have arrived as planned
2. Work on getting familiarized on Arduino
3. Work on a "starter project" with the photoresistor in order to get familiarized with both the Arduino and the breadboard. (LED's turning on based on different light levels. ***This is a milestone. Save all design files, record a video, and post to the website.***)
4. Begin working on the main circuits. Locate/draw a schematic that shows every part that will need to be connected. (Circuit that turns on a 5v light bulb)
5. Connect all parts together and verify that it works. ***This is a milestone. Save all design files, record a video, and post to the website.***
6. Work to move from turning on a 5v light bulb to turning on multiple lights within a house. (Research how house lighting works?)
7. Verify that the breadboard circuiting works.
8. Work towards a more permanent circuit board.
9. Verify that this more permanent circuit board is fully functional. ***This is a milestone. Save all design files, record a video, and post to the website.***
10. Create full documentation, write a blog post describing the system, and post everything on your webpage.

### Potential Modifications:

1. Turn on lights in different areas of the house based on different light levels.
2. Have options to disable the light switching in different areas of the house.