BlueStamp Engineering

Example of a 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: Kriselle Tanhueco
Location: Palo Alto
Instructor: Laura Kambourian
Starter Project: #1, Minty Boost
Main Project: #310: 3D Printed Robotic Hand
http://bluestampengineering.com/student-projects/annabel-y/
http://bluestampengineering.com/student-projects/sanjana-k/

Major Steps to complete the project:

1. Make sure all parts have arrived as planned.
2. Draw a schematic for the servos and flex sensors that shows every wire that will need to be connected.
3. Program Arduino to connect flex sensors to servos.
4. Use a breadboard and an Arduino Uno to wire the flex sensors to the servos. Test to make sure they work. ***This is a milestone. Save all design files, record a video, and post to the website.***
5. Solder the flex sensor half of the circuit onto a PCB.
6. Sew the flex sensors onto the glove. Test to make sure the glove can control the servos. ***This is a milestone. Save all design files, record a video, and post to the website.***
7. Assemble parts for hand. Use a file/sandpaper to clean it up.
8. Thread fishing line through fingers and connect to servo horns. Ensure that the system works as expected. ***This is a milestone. Save all design files, record a video, and post to the website.***
9. Create full documentation, write a blog post describing the system, and post everything on your webpage.

Potential Modifications:

1. Paint hand for aesthetic purposes
2. Allow for wireless control of hand