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 that shows every wire that will need to be connected.
3. Design the mechanical parts that will be needed in Google Sketchup. Have a staff member check them and ask to get the parts made.
4. Program Arduino to connect flex sensors to servos. Test to make sure servos turn when flex sensors are bent. ***This is a milestone. Save all design files, record a video, and post to the website.***
5. Assemble the mechanical parts of the hand and install servos. ***This is a milestone. Save all design files, record a video, and post to the website.***
6. Mount sensors and circuits onto the glove.
7. 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.***
8. Create full documentation, write a blog post describing the system, and post everything on your webpage.

Potential Modifications:

1. Add wrist movement
2. Increase range of joints for more realistic movement
3. Paint hand for aesthetic purposes
4. Allow for wireless control of hand