DASL Wiki

Week 6: Two motors = Two sensors!

Photo of the week :

I completed the license plate design and its actual prototype all by myself. I felt so happy! I designed it, chose the material, and by taking some assistance from Tommy and Ethan, I cut it using laser cutters. Then, using acrylic paints, I painted it. It started looking stunning! I felt so good after completing it!
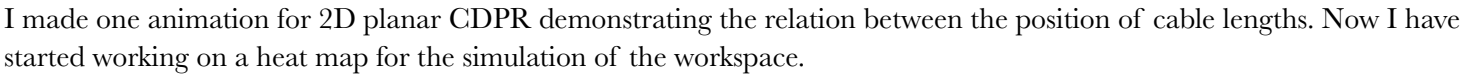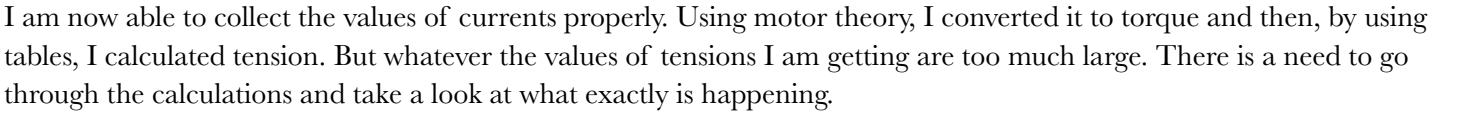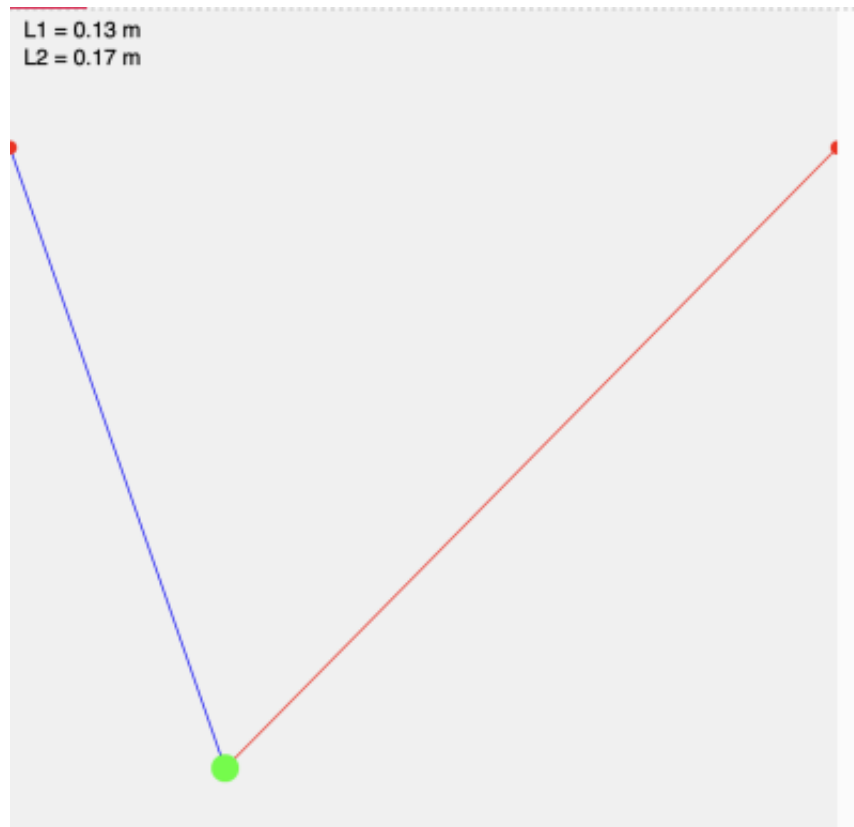
This week was pretty fruitful for me.

End Effector:

One sensor cannot give out the values of the current pulled by two motors separately. Thus, there was a need for integrating two sensors to the end effector. But integrating and getting them to work wasn't an easy task at all! Following is the circuit diagram which I made after understanding the ports and electric current flow. Patience and persistence always pay off! It worked.

I am now able to collect the values of currents properly. Using motor theory, I converted it to torque and then, by using tables, I calculated tension. But whatever the values of tensions I am getting are too much large. There is a need to go through the calculations and take a look at what exactly is happening.

I made one animation for 2D planar CDPR demonstrating the relation between the position of cable lengths. Now I have started working on a heat map for the simulation of the workspace.

L1 = 0.13 m
L2 = 0.17 m

Projectile Launcher:

I made a pretty big (comparatively big) projectile launcher for projecting anchors. I also got 3D printed two anchors which will hold the string and get stuck so that anchor points can be fixed on the wall.

I am aiming to complete the demo of the project by this Friday.

SWITCH: Hugeness was mind-boggling.

In the middle of the week, we all visited SWITCH, which is one of the huge data centers in the world.

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