

ECE 180DA – Week 3

1. What did you plan to do last week?

- Look into developing the drawing functionality (LED pen, normal pen, etc)
- Start developing the voice recognition module
- Start developing the basic game function module
- Develop the project spec a little more, think about implementation

2. What did you end up doing last week?

-My Raspberry Pi had a really big problem as it wouldn't let me ssh into it randomly out of nowhere. I tried everything, which included restarting my Wi-Fi, restarting the pi, checking for internet connection, and many other things.

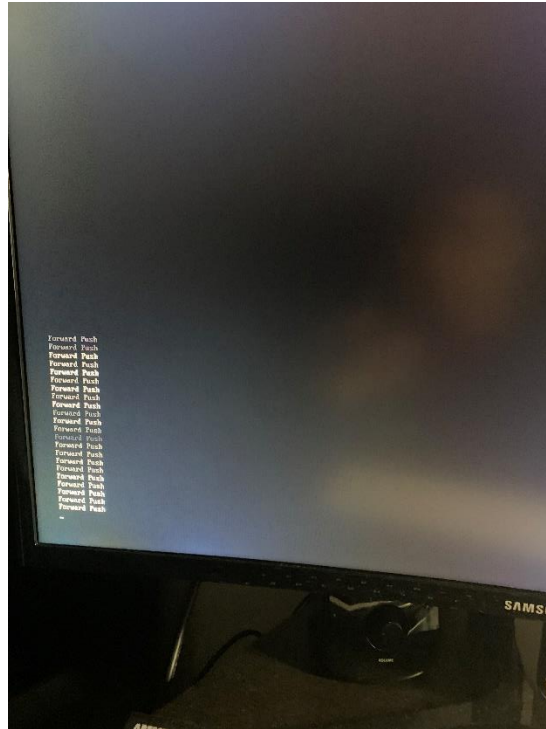
-The pi connects to the internet, I see it from my Spectrum App. I can also use it using my hdmi cable, so I ended up just doing that.

-Finished the task, which included outputting a constant stream of data and writing a classifier that detects upward or forward motion.

-This could be better/more robust, but it works fairly well for now. It senses fast movement well, but slow movement could improve.

-Also, rotating leads to false positives, so got to look into that more

```
pi@pi: ~/Berry/MU/python-Berry/MU-gyro-accel-compass
# # CFangleX Angle -0.46 CFangleY Angle 1.26 # # HEADING 250.87 tiltCompensatedHeading 250.54 ## kalma ^
nX -0.48 kalmanY 1.25 # # GRYX Angle 11.18 GRY Angle -16.91 GVRZ Angle -30.53
Loop Time 0.05 # ACCX Angle -0.53 ACCY Angle 1.23 # # HEADING 251.30 tiltCompensatedHeading 251.00 ## kalma
# # CFangleX Angle -0.50 CFangleY Angle 1.26 # # GRYX Angle 11.28 GRY Angle -17.07 GVRZ Angle -30.28
nX -0.54 kalmanY 1.33 # # HEADING 251.39 tiltCompensatedHeading 251.08 ## kalma
Loop Time 0.05 # ACCX Angle -0.50 ACCY Angle 1.24 # # GRYX Angle 11.49 GRY Angle -16.92 GVRZ Angle -30.61
nX -0.50 kalmanY 1.24 # # HEADING 251.29 tiltCompensatedHeading 250.99 ## kalma
Loop Time 0.05 # ACCX Angle -0.52 ACCY Angle 1.20 # # GRYX Angle 11.65 GRY Angle -16.90 GVRZ Angle -30.69
nX -0.41 kalmanY 1.36 # # HEADING 250.91 tiltCompensatedHeading 250.63 ## kalma
Loop Time 0.05 # ACCX Angle -0.64 ACCY Angle 1.19 # # GRYX Angle 11.67 GRY Angle -16.96 GVRZ Angle -31.11
nX -0.43 kalmanY 1.36 # # HEADING 251.39 tiltCompensatedHeading 251.08 ## kalma
Loop Time 0.05 # ACCX Angle -0.43 ACCY Angle 1.24 # # GRYX Angle 11.68 GRY Angle -16.98 GVRZ Angle -31.16
nX -0.45 kalmanY 1.32 # # HEADING 251.16 tiltCompensatedHeading 250.85 ## kalma
Loop Time 0.05 # ACCX Angle -0.67 ACCY Angle 1.32 # # GRYX Angle 11.71 GRY Angle -17.01 GVRZ Angle -31.41
nX -0.57 kalmanY 1.35 # # HEADING 251.54 tiltCompensatedHeading 251.22 ## kalma
Loop Time 0.05 # ACCX Angle -0.51 ACCY Angle 1.23 # # GRYX Angle 11.80 GRY Angle -17.08 GVRZ Angle -31.44
nX -0.56 kalmanY 1.33 # # HEADING 251.15 tiltCompensatedHeading 250.86 ## kalma
Loop Time 0.05 # ACCX Angle -0.57 CFangleY Angle 1.23 # # GRYX Angle 11.84 GRY Angle -17.17 GVRZ Angle -31.81
nX -0.58 kalmanY 1.31 # # HEADING 251.10 tiltCompensatedHeading 250.76 ## kalma
Loop Time 0.05 # ACCX Angle -0.42 ACCY Angle 1.30 #
nX -0.54 kalmanY 1.29 #
Loop Time 0.05 # ACCX Angle -0.55 ACCY Angle 1.18 #
```



-Came up with a new idea using IR sensors to track drawing instead of an LED light.

-Have to ask Jeffrey and Pavan

-Came up with a new plan for the game implementation. We will start with just having some images from the internet and having people guess what they are, which will allow us to implement the game properly and then just fill in the drawing stuff when we get it.

-Looked into IBM Watson Speech to Text API

3. What do you plan to do this week?

-Look into developing the drawing functionality (LED pen, normal pen, IR)

-Develop the voice recognition module

-Start developing the basic game function module with the images from the internet.

-Develop the project spec a little more, think about implementation

-Make a midterm presentation and update the project spec