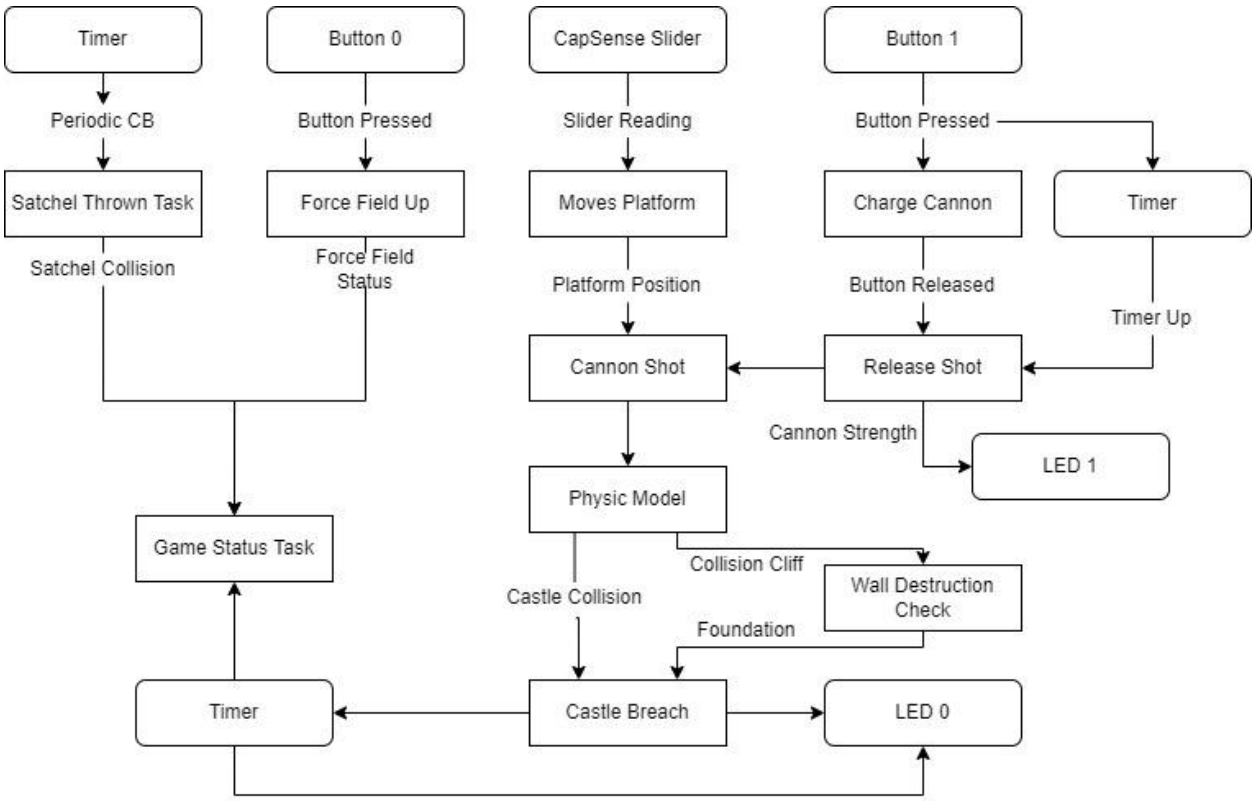
Eric Lei
ECEN 3753
7 APR 2023

Project Report Week 2

Data Flow Diagram (tentative):



Test Plan

One test I wanted to test was getting the LCD screen working. This includes displaying to the LCD, making designs, and moving objects on the screen. There's still a few aspects that I wish to test more, but for the most part, I got many of these tests to work.

Current State:

This week, my main focus was working with the LCD screen. I wasn't quite sure how to use the screen prior to this week, so I spent a lot of time learning to operate it. I felt that it was important to get this module down before continuing. Going forward, I hope that this commitment will aid me with the rest of my project.

The physics model is something that I expect will take me a long amount of time. With the LCD working, I believe that taking the extra amount of time to get the LCD will help reduce the time I spent coding the physics.

Next week, I hope to continue working on the LCD screen while also starting the physics model. Currently, I have equations that I hope to apply to the code. This should aid me in testing different behaviors that I can choose to use at the end.

In-scope Work Items

LCD Screen

This week was mainly used to focus on understanding the LCD screen and how to code to it. There's still different functions I want to test before I move on, so there's still work that needs to be done on it. As of right now, I was able to move a pixel across the screen. As I continue to work on this module, I want to make the pixel bounce off walls.

Physics Model

With the LCD Screen module progress, I can now comfortably start working on the physics for our game. As of now, I have the equations I will use laid out. One problem that has come up is converting the units of measurement of meters to pixels. I plan to use next week to calculate the conversions and test them.

PWM LED

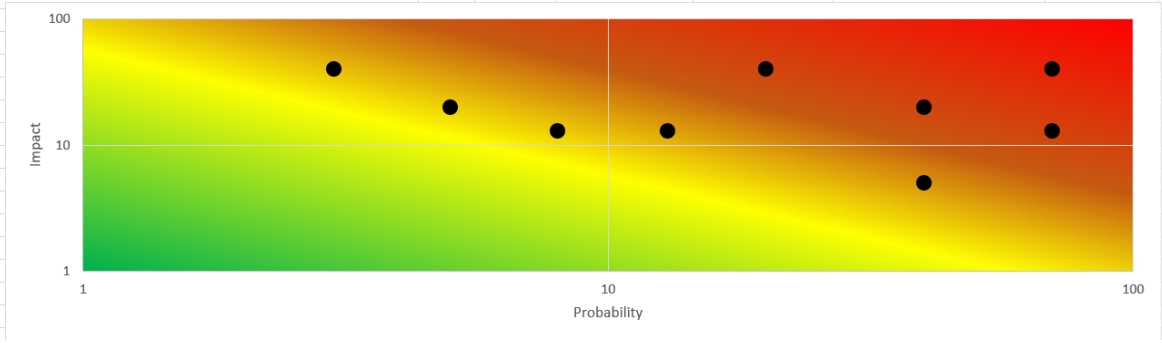
No change

Summary Effort & Time Estimates

- Completed 15% of my currently-scoped, estimated work (7.5hr estimated for work completed thus far, 50 hr estimate)
- Used 14% of the budgeted total-project time. (8 time spent, of 50 hr estimate).
- For the work that has been completed, I took 2.5x (7/1) as much time as I estimated.

Risk Registers

Item	P	I	Risk (P*I)	Recognized	Mitigated/ Resolved	ROAM	How
I catch CoViD	3	40	120	14-Jan-21	Mitigated	M	learned instructor has extension possible
equipment stops working	5	20	100	14-Jan-21		O	make sure everythings working, check up often
Busy with other classes	70	40	2800	23-Mar-21		O	Lay out schedule of rest of semester for all classes/make plan
will get stuck/don't know how to move on	40	20	800	23-Mar-21	Mitigated	M	attend office hours/talk to classmates
unable to attend offices hours	70	13	910	23-Mar-21	Resolved	R	(see row 5) contact TA/John via Slack
unclear of instructions	20	40	800	23-Mar-21		O	start making diagrams/ask for help if problems or holes found
too ambitious	8	13	104	23-Mar-21	Mitigated	M	if behind on project, consider changing the scope to be more reasonable
fall behind schedule	13	13	169	23-Mar-21	Mitigated	M	assess what needs to be done/adjust schedule accordingly
project's not fully functional	40	5	200	23-Mar-21		A	understand that mistakes will happen, as long as I comprehended and lear



Little to no change for risk assessment.