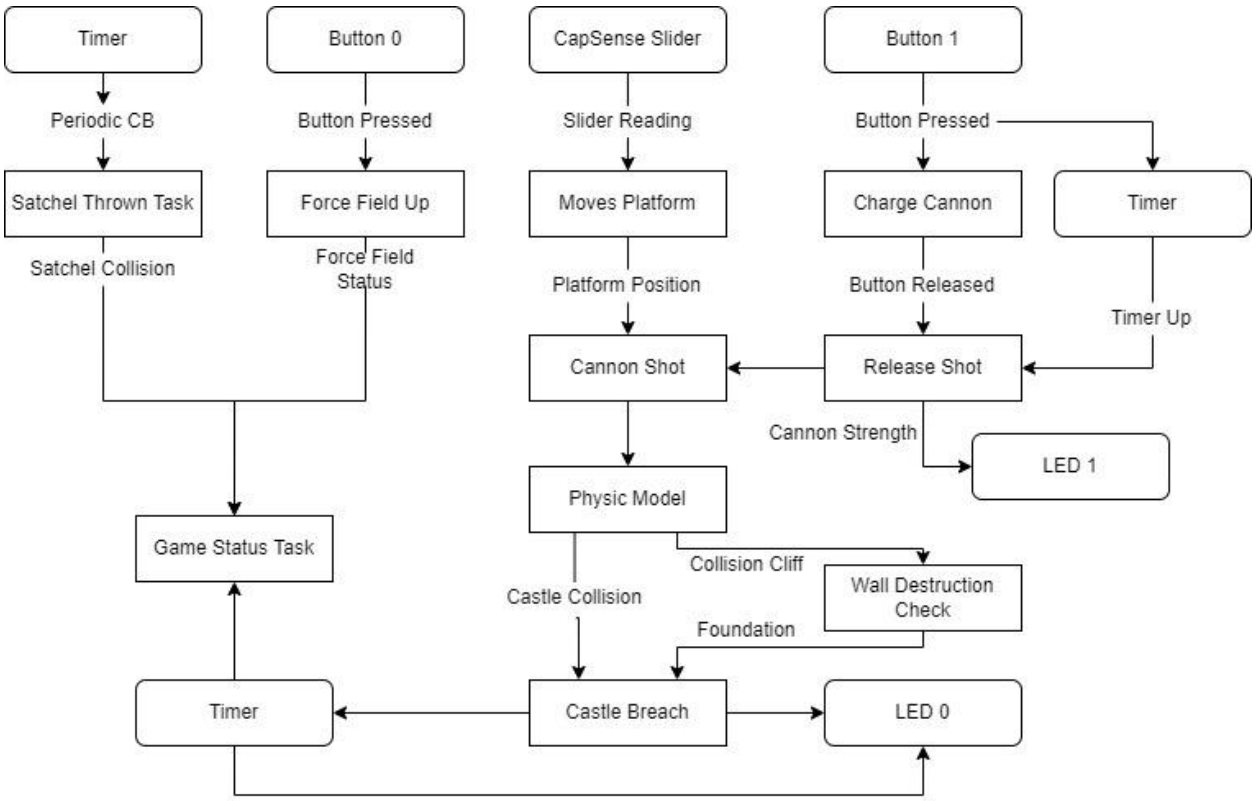
Eric Lei
ECEN 3753
24 MARCH 2023

Project Report Week 1

Data Flow Diagram (tentative):



Test Plan

One aspect of the code I want to test is using the LCD screen and updating it in real time. My plan is to move a pixel as if it was a cannon shot. This way I can isolate the physics engine when I am debugging and testing it. This is also a good time to test different aspects of the physics, such as bouncing and movement in general.

Eric Lei
ECEN 3753
24 MARCH 2023

Current State:

Currently, this project is in very early stages of development. This includes reading over documentation, assessing requirements and potential risk, and coming up with a plan to tackle our problem space. As stated in the project description, there are many decisions left on the table for us to decide on. This includes how the game should be designed and managed. There were certain aspects that were required for the game, so those were laid out beforehand too.

After planning out how the game should be played, I put down my thoughts on a data flow diagram. The diagram leaves out many specific details, but it will help me keep track of how the flow of the game should look like.

Risk and potential issues were something I couldn't fully foresee at this point in the process. Whatever risks came to mind were placed in my risk register table. I am curious to see if my probabilities and impact values were accurate and how much they actually affect me if these issues come up. Currently, most of the risks were in the upper zones.

Eric Lei
ECEN 3753
24 MARCH 2023

In-scope Work Items

LCD Screen

I believe that I still need to read through some of the documentation to fully understand how to use this hardware

Physics Model

This is what I estimate will take the longest. I'm familiar with equations needed for the engine, but coding these is not something I am familiar with.

PWM LED

I am not entire sure how to code this so will need to read into it a bit more

Summary Effort & Time Estimates

Completed 2% of my currently-scoped, estimated work (1hr estimated for work completed thus far ,50 hr estimate)

Used 5% of the budgeted total-project time. (2.5 time spent, of 50 hr estimate).

For the work that has been completed, I took 2.5x (2.5/1) as much time as I estimated.

Eric Lei
ECEN 3753
24 MARCH 2023

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