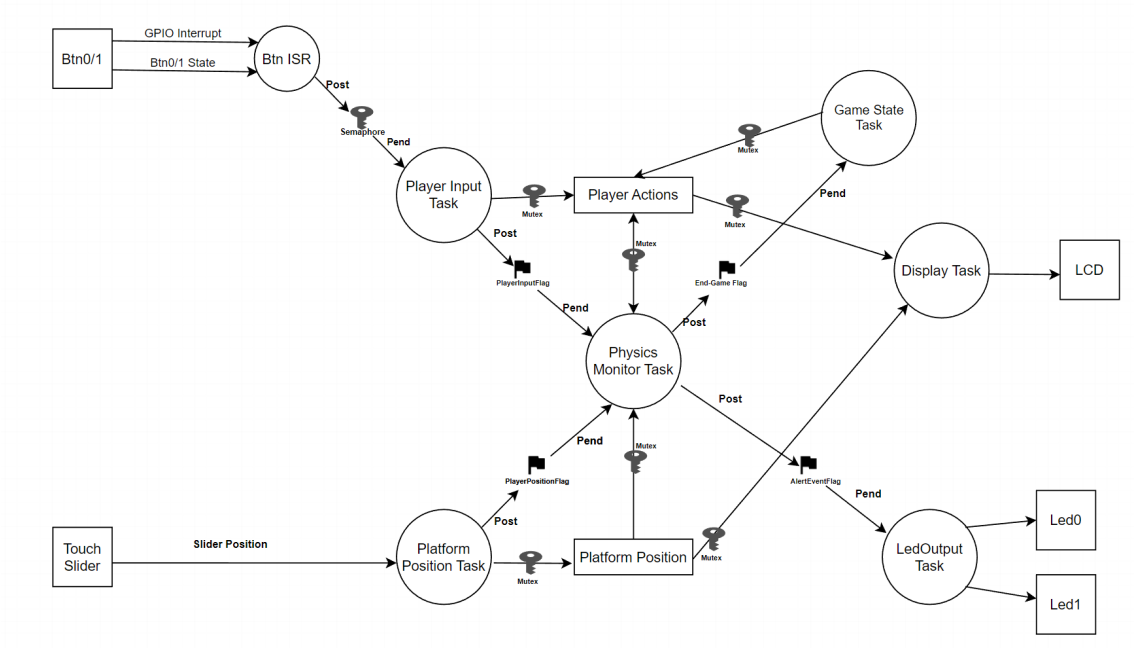
5 points:

Week 2: Task diagram, showing data flow and appropriate ITC/MutEx. (From this diagram, you should later be able to show that your design will fulfill functional requirements, and it should provide clarity about data structures between execution entities (Tasks/ISRs).)



5 points: Test Plan and results (3 sections: Unit Tests, Functional Tests, and Summary of tests' conditions)

Week 4: Carefully specify your functional tests, such that another person could understand how to execute them. Summarize hypothetical-unit and real functional test results.

- Button Functionality Tests:
  - Button 0: In order to test the rail gun functionality -
    - Press and hold the button and see on the LCD screen that the rail gun charges and the energy decrease. Release button and see railgun fire. **RAN**
    - Press and hold the button until maximum energy and see railgun fire without releasing the button. **RAN**
    - When railgun fires, notice that shots don't bounce and take chunks out of the cliff face. **NOT RAN**
    - If the shot hits castle or takes off a certain amount of the cliff face, then see that game is won and ends. **NOT RAN**
  - Button 1: In order to test the force field functionality -
    - Press the button when there is energy available and see force field discharge on the LCD. **RAN**
    - If no energy is available, notice when pressing the button that nothing happens. **RAN**

        - Notice force field only discharges once until button is released **RAN**
- Slider Functionality Tests:
    - Apply pressure to the capsense touch sensor and slide it to the left and right. See that the platform on the LCD screen moves with your position on the sensor. **RAN**
    - See that when moving a slow enough speed and hit the side of the canyon that it bounces off **RAN**
    - See that when moving a fast speed and hitting the side of the canyon that the platform is destroyed **RAN**
- Capacitive Energy Bar tests:
    - See that when idle capacitive energy bar goes up until it reaches its maximum value **RAN**
- Satchel Functionality Tests:
    - See that satchels get dropped occasionally from the castle **NOT RAN**
    - See that Satchels bounce off of canyon face **NOT RAN**
    - See that when satchel is bouncing towards platform and force field is discharged that it destroys satchel **NOT RAN**
    - See that when satchel hits platform, game ends and platform is destroyed. **NOT RAN**

5 points: Statement of where your project stands:

(3 points) Accurate summary statement of your functionality deliverables and usability so far.

This week I worked more on coding and implementing my design. I was able to finish implementing my buttons and touchslider where they now are in a good spot with the LCD screen. I am able to charge and fire my railgun and slide the platform left and right. I am also able to discharge my force field and keep track of the capacitive energy. I was able to run some functionality tests and see that things were working as I expected them too.

(2 points) Summary effort & estimate numbers.

I have completed 60% of my currently-scoped, estimated work (60 estimated for work completed thus far /100hr total estimate) in 60% of the budgeted total-project time. (60 time spent, of 100hr total estimate). For the work that has been completed, I took 1x as much time as I estimated.

5 points: List of in-scope work items (NOT just _this_ week's), indicating complete or not-yet-complete, along with your estimates of how long you think they will take in total for each

To-Do	Status	Time Spent (hours)	Time to Complete (hours)
WEEK 4			
Work on LCD implementation	SEMI-COMPLETE	7	5
Implement Button Functionality	COMPLETE	6	5
Implement Slider Functionality	COMPLETE	6	5
Functionality Tests	COMPLETE	1	1
Summary Statement	COMPLETE	0.25	0.25
Summary effort & estimate numbers	COMPLETE	0.25	0.25
List of in-scope work items	COMPLETE	0.25	0.25
Update risk register	COMPLETE	0.083	0.083

5 points: Update your risk register

Item	P	I	Risk (P*I)	Recognized	Mitigated/ Resolved	ROAM	How
Health Issues	1	100	100	23-Mar-23		M	Contact Instructor for extension if possible
Gecko Technical Issues	3	100	300	23-Mar-23		O	If issues arise, Contact TA/Instructor
Motivation	70	100	7000	6-Apr-23		M	Don't procrastinate, start early and do as much as I can each day.
Macbook issue	40	100	4000	20-Apr-23		M	Save a back up on multiple devices of project
			0				
			0				
			0				
			0				
			0