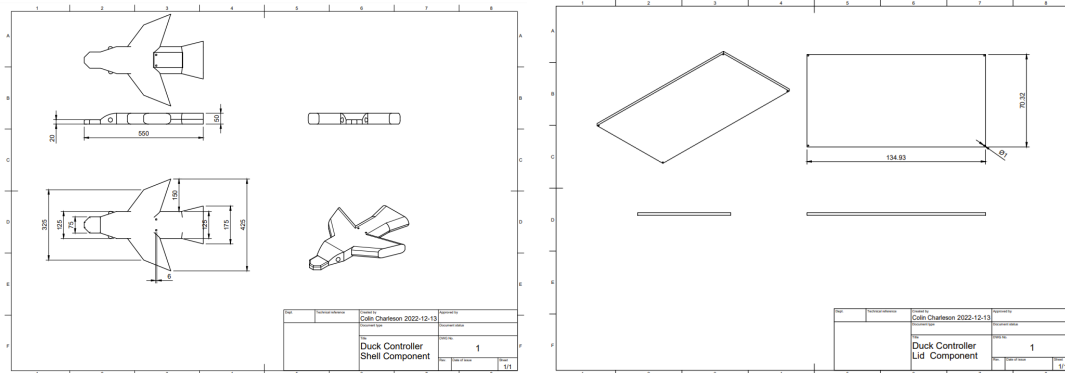
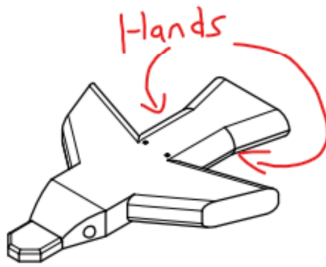


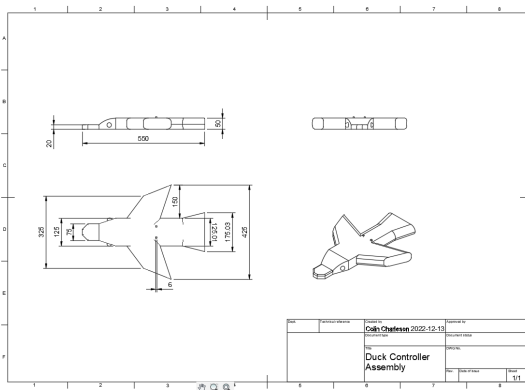
i.)



I created a duck shell that is used to house all the components. The player holds the duck by the tail (As seen below) so I used the bevel tool to make the controller feel better on the players hands with better ergonomics. The lid is the second component and that is used to cover the electronics while playing. The lid would be attached using screws



ii.)



Here you can see the full assembly of the controller with all the components inside. I used blocks with the right scale for the electronic components because I couldn't get the ones to work in fusion that you uploaded

iii.)

exploded view not required.

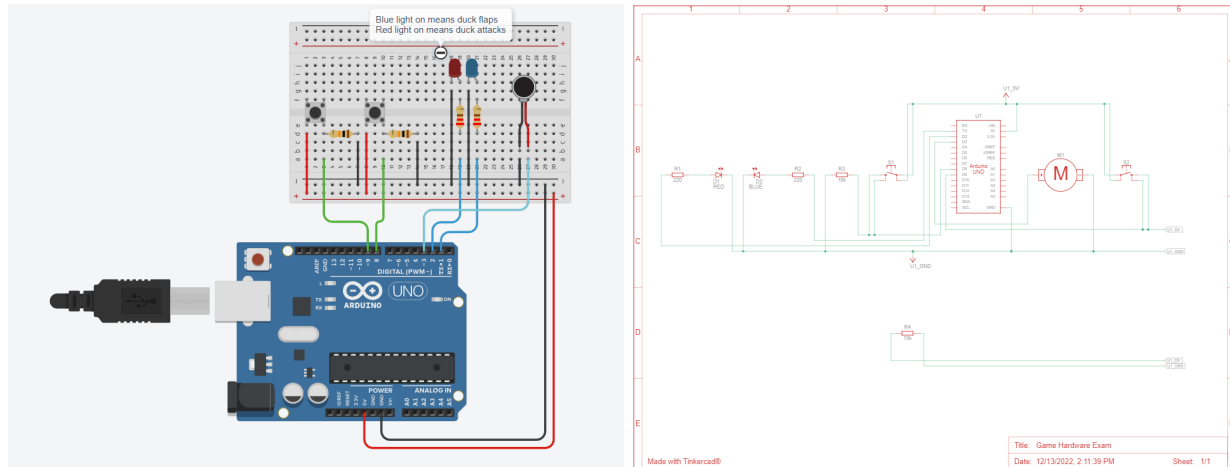
iv.)

TinkerCad Link:

<https://www.tinkercad.com/things/fkOfJFEF5xs-game-hardware-exam/editel?sharecode=a-tDLly7UriEYykH4oVya1Zlo9jjsrX--7yJ6ZLwoY>

Video Demo Link:

https://youtu.be/NZR_MY4Orlo



In my simulation there are two buttons, a vibration motor and LED lights. The buttons are used to control the duck. The right button will flap the duck's wings, propelling it upwards and forwards similar to the controls of flappy bird. However in the simulation there is just a light to represent this. There is also a vibration motor that will activate when the player flaps its wings to help give feedback and to enhance the experience. The left button will perform a new action defined by me, I decided to add an attack button so the player has a chance to fight back. In the simulation I used an LED to represent when the duck is attacking.

Blue light on means duck flaps

Red light on means duck attacks