Aryan Bhatnagar
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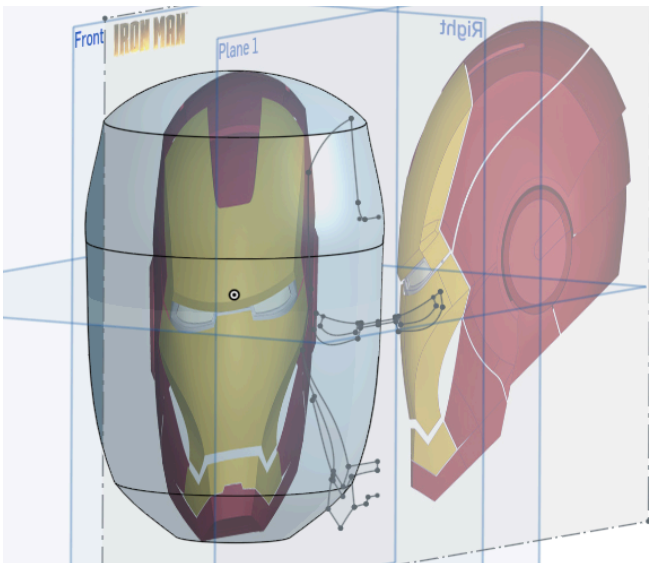
Iron-Man Helmet Final Build

POE: Period 6

Monday May 16, 2022

Today's Goal: Create a time table of what we are going to do for eleven days. Start creating a CAD design for the iron-man helmet.

Dates:	Thing we are going to do:
5/16	Work on CAD design on onshape
5/18	Finish CAD design on onshape
5/19	Start working on the final build
5/20	Build day #1: cutting and gluing
5/24	Build day #2: finish gluing and cutting
5/25	Build day #3: finish detailing and spray painting
5/26	Build day #4: circuits, coding and wiring motor and arduino
5/31	If anything goes wrong, these are the filler days, but if everything goes right, we will build the ark reactor as well (maybe the top part of the suit as well)
6/1	If anything goes wrong, these are the filler days, but if everything goes right, we will build the ark reactor as well (maybe the top part of the suit as well)
6/2	If anything goes wrong, these are the filler days, but if everything goes right, we will build the ark reactor as well (maybe the top part of the suit as well)
6/6	If anything goes wrong, these are the filler days, but if everything goes right, we will build the ark reactor as well (maybe the top part of the suit as well)
6/7	Finish everything

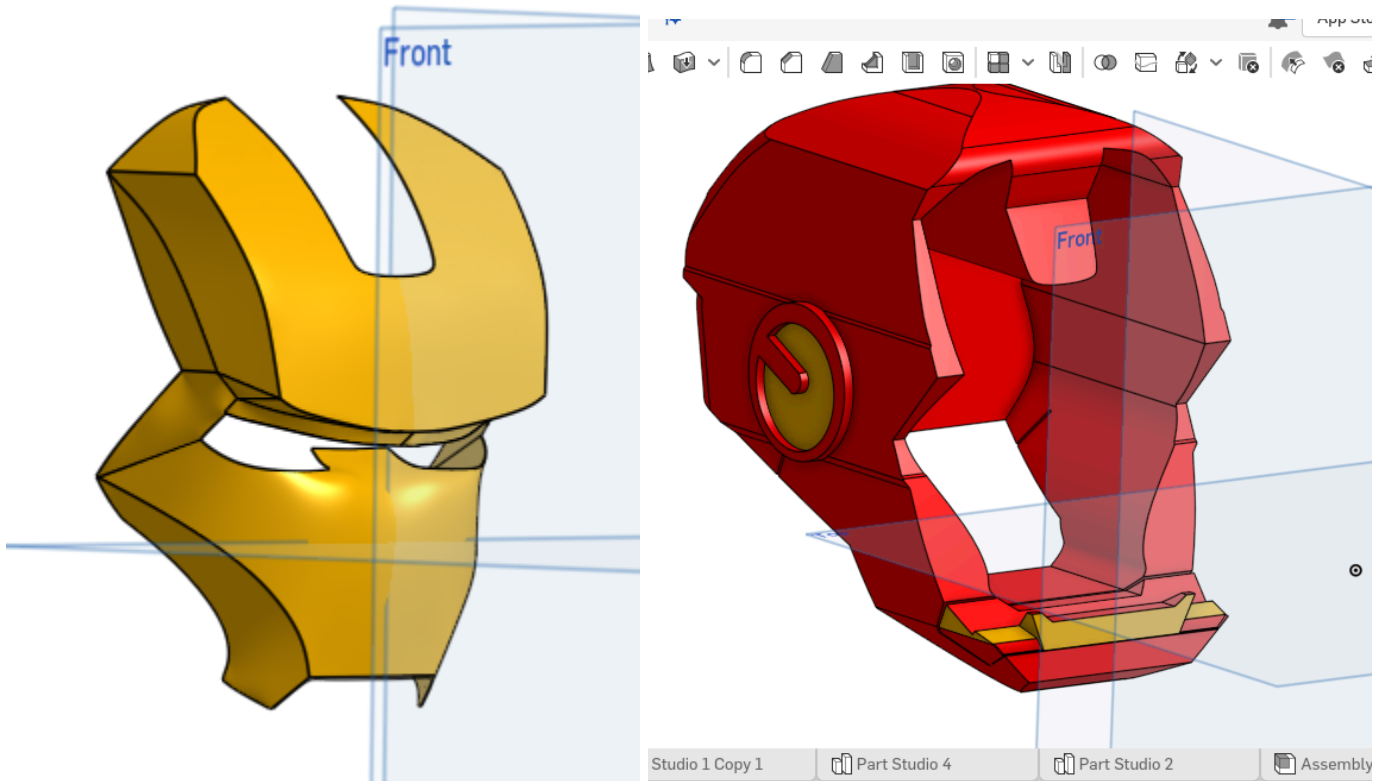Challenges: It took time to create a good image of the iron man helmet

Accomplishments:

Wednesday / Thursday May 18 / 19, 2022

Today's Goal: Finish designing Iron-Man helmet

Accomplishments:

I created the face of the helmet by sketching an outline of the helmet and then using projectile curve and fill tool to make the surface of the ironman face
The next substudy I created the outer base of the helmet
Onshape build
Challenges:

I had to do this in substudy using a chromebook, but I did finish it up at home
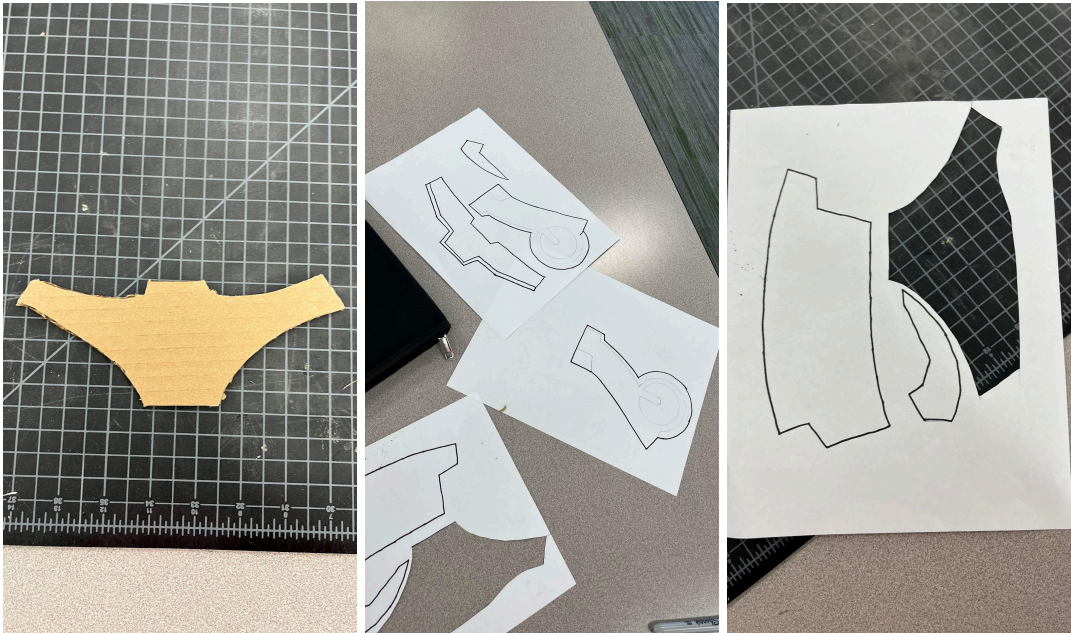
Tuesday May 25, 2022

Today's Goal: Cut out cardboard for Iron man Helmet

Accomplishments: We completed the informational exacto knife training

Thursday May 26, 2022

Today's Goal: Cut out cardboard with laser printer

Accomplishments: We cut out a peace of the cardboard, we will need to make a drawing on illustrator

Challenges: Laser printer could not see all the drawings so, we had to outline them and cut them

Tuesday May 31, 2022

Today's Goal: Create a drawing on illustrator

Accomplishments: We traced all the drawing on illustrator

Challenges: The drawings were not to scale

Wednesday June 1, 2022

Today's Goal: Start cutting out all the pieces for the project

Accomplishments: Finished drawing out on illustrator

Challenges: Trying to find the right scale for the outlines

Thursday June 2, 2022

Today's Goal: Laser printing all the parts for the project

Accomplishments: Laser cutter half the parts we needed

Challenges: It was hard for us to get the parts the same length

Monday June 6, 2022

Today's Goal: Start to glue and cut out the rest of the parts

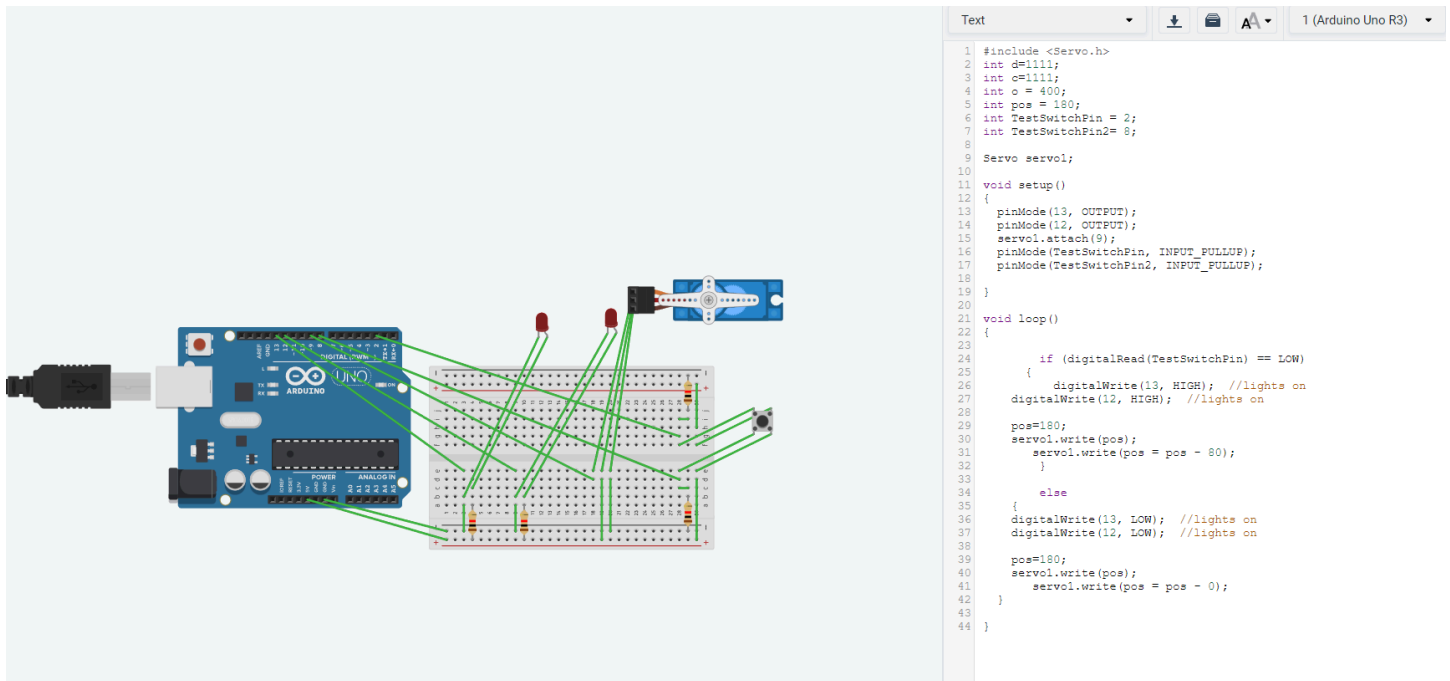Accomplishments: Finished the head of the helmet

Challenges: It took some time cutting out some pieces

Tuesday June 7, 2022

Today's Goal: Finish gluing all the parts together and the circuits

Accomplishments: Almost finished gluing the parts and coded the circuits


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Text                              ⬇ 🖨  AA ▾   1 (Arduino Uno R3)  ▾

 1  #include <Servo.h>
 2  int d=1111;
 3  int c=1111;
 4  int o = 400;
 5  int pos = 180;
 6  int TestSwitchPin = 2;
 7  int TestSwitchPin2= 8;
 8
 9  Servo servo1;
10
11  void setup()
12  {
13    pinMode(13, OUTPUT);
14    pinMode(12, OUTPUT);
15    servo1.attach(9);
16    pinMode(TestSwitchPin, INPUT_PULLUP);
17    pinMode(TestSwitchPin2, INPUT_PULLUP);
18
19  }
20
21  void loop()
22  {
23
24        if (digitalRead(TestSwitchPin) == LOW)
25        {
26            digitalWrite(13, HIGH);  //lights on
27      digitalWrite(12, HIGH);  //lights on
28
29      pos=180;
30      servo1.write(pos);
31        servo1.write(pos = pos - 80);
32        }
33
34        else
35        {
36      digitalWrite(13, LOW);  //lights on
37      digitalWrite(12, LOW);  //lights on
38
39      pos=180;
40      servo1.write(pos);
41        servo1.write(pos = pos - 0);
42    }
43
44  }
```

Challenges: It took some extra time gluing the parts together and I also had to 3D print some new parts as well