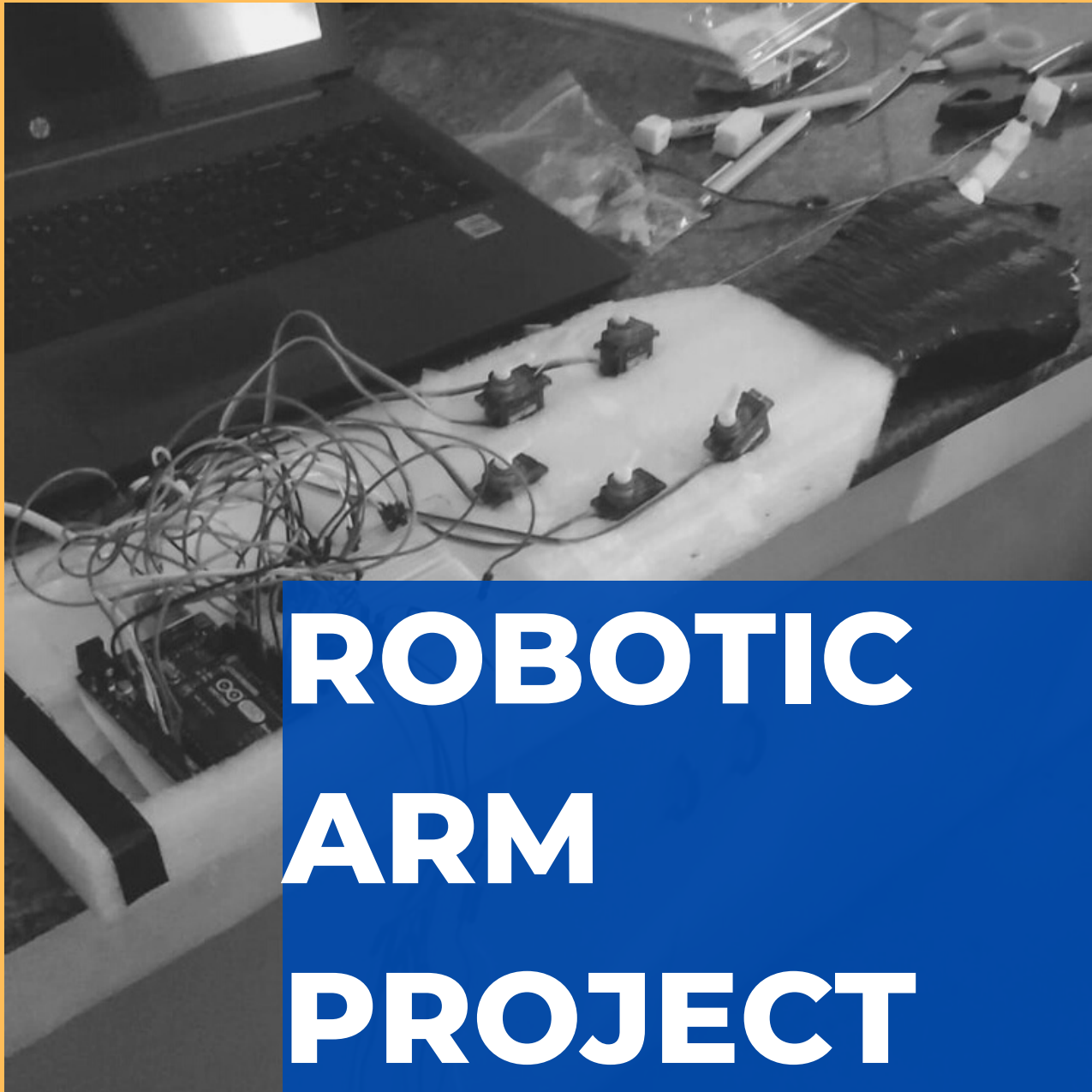

30th Sptember 2022



Prepared By:

- 1.MANISH**
- 2.PRIYANSH**
- 3.KARTIK**
- 4.MEDHA**
- 5.ILMA**

Reviewed By:
Mahak Ahuja mam

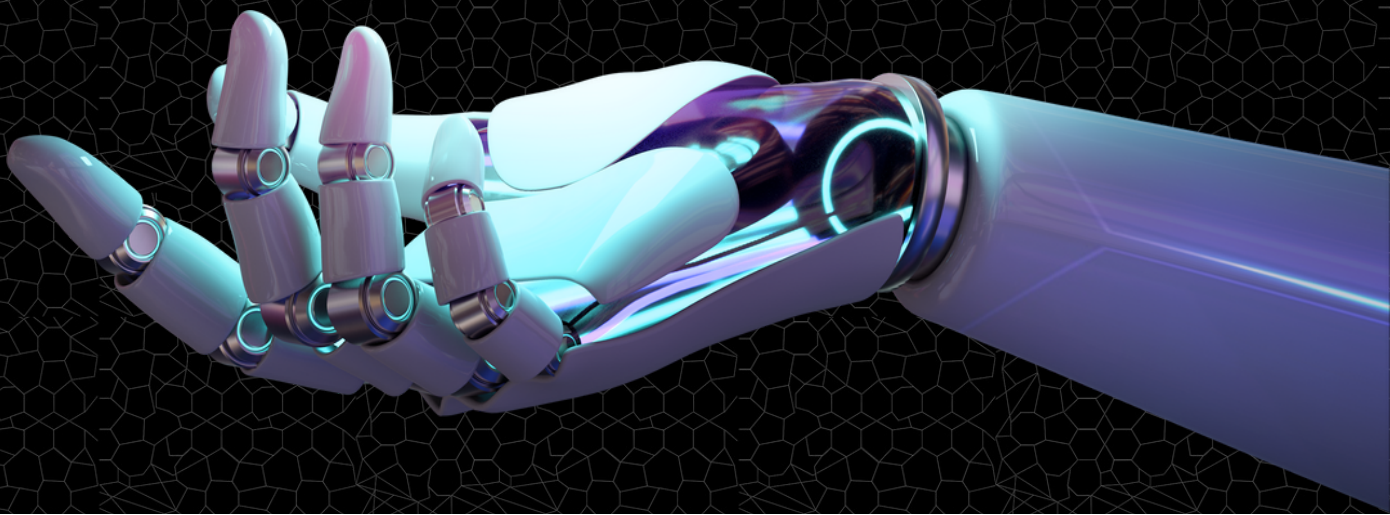
CLASS:
12 SCIENCE

PHYSICS CONCEPT USED

For there to be good understanding of robotics, there more be foundational understanding of electrical circuits, mechanics, material science, energy transfer and conversion, etc, all of which are derived from knowledge of physics.

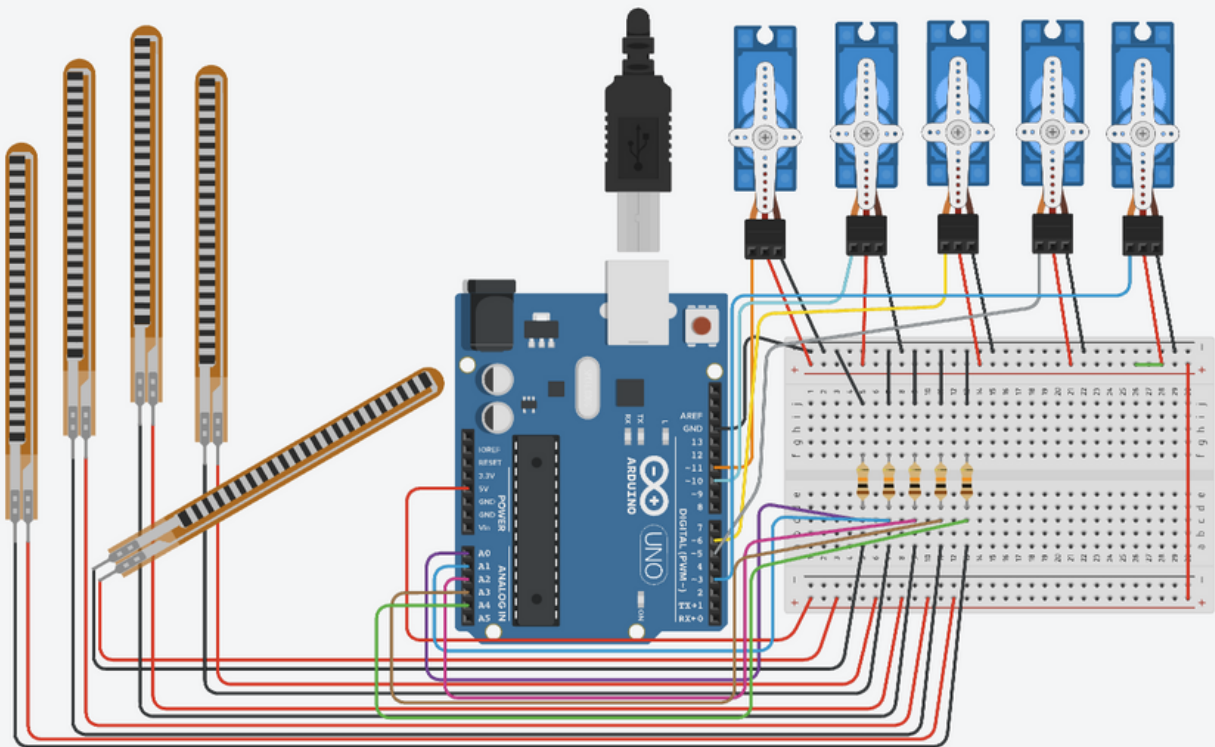
A robot is a programmable machine that can complete a task,

while the term robotics describes the field of study focused on developing robots and automation. Each robot has a different level of autonomy. These levels range from human-controlled bots that carry out tasks to fully-autonomous bots that perform tasks without any external influences.



Material Used

- 1.Arduino Uno
- 2.servo motor
- 3.flex sensor
- 4.f to f jumper
5. m to m jumper
6. m to f jumper
7. breadboard
8. 10 k ohm resistor
- 9.power source




```
1 #include <Servo.h>
2 Servo thumb;
3 Servo index;
4 Servo middle;
5 Servo ring;
6 Servo pinky;
7
8 void setup()
9 {
10     thumb.attach(3);
11     index.attach(5);
12     middle.attach(6);
13     ring.attach(10);
14     pinky.attach(11);
15     Serial.begin(9600);
16 }
17
18 void loop()
19 {
20     int thumbS=analogRead(A0);
21     int indexS=analogRead(A1);
22     int middleS=analogRead(A2);
23     int ringS=analogRead(A3);
24     int pinkyS=analogRead(A4);
25     Serial.println(thumbS);
26
27     thumbS=map(thumbS,59,256,0,180);
28     indexS=map(indexS,59,256,0,180);
29     middleS=map(middleS,59,256,0,180);
30     ringS=map(ringS,59,256,0,180);
31     pinkyS=map(pinkyS,59,256,0,180);
32
33     thumb.write(thumbS);
34     index.write(indexS);
35     middle.write(middleS);
36     ring.write(ringS);
37     pinky.write(pinkyS);
38     delay(10);
39
40
41
42 }
```



CODE

George Devol

Unimate introduced its first robotic arm in 1962 (Fig. 8) [19]. The arm was invented by George Devol and marketed by Joseph Engelberger.

Robotics is the intersection of science, engineering and technology that produces machines, called robots, that replicate or substitute for human actions. Pop culture has always been fascinated with robots — examples include R2-D2, the Terminator and WALL-E.