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Program no Week-6(2nd-Question)

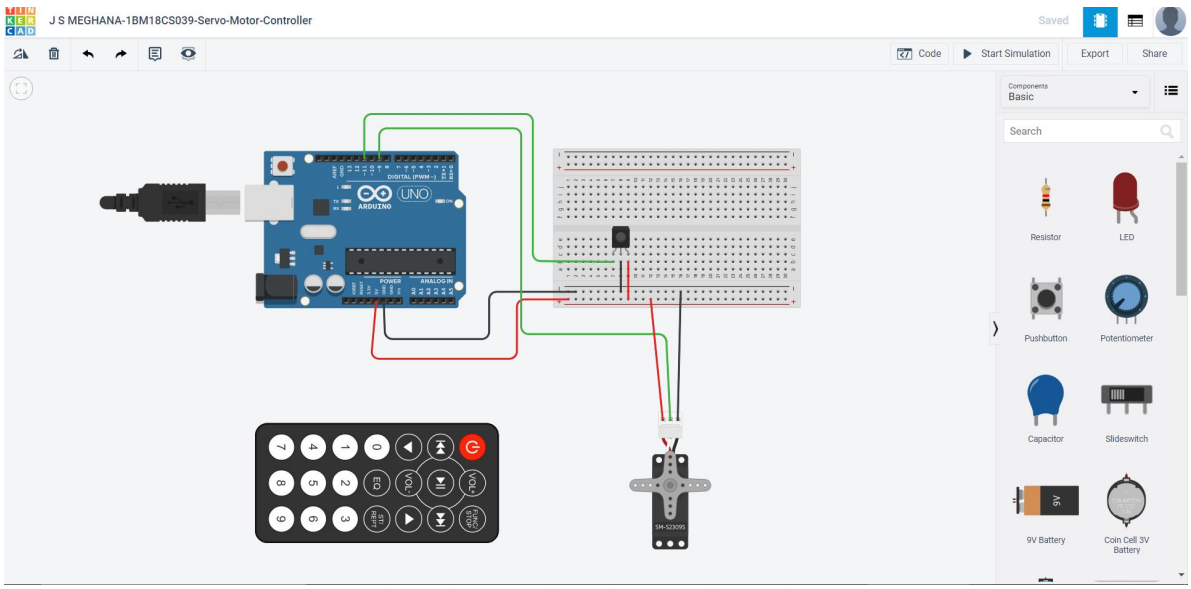
Program Title Servo Motor Controller

Aim: Design an IR based Servo Motor Controller (Clockwise and Counter clockwise rotation of shaft).

Hardware Required

1. Arduino Board
2. Bread Board
3. IR Sensor
4. Micro servo

Circuit Diagram



Code:

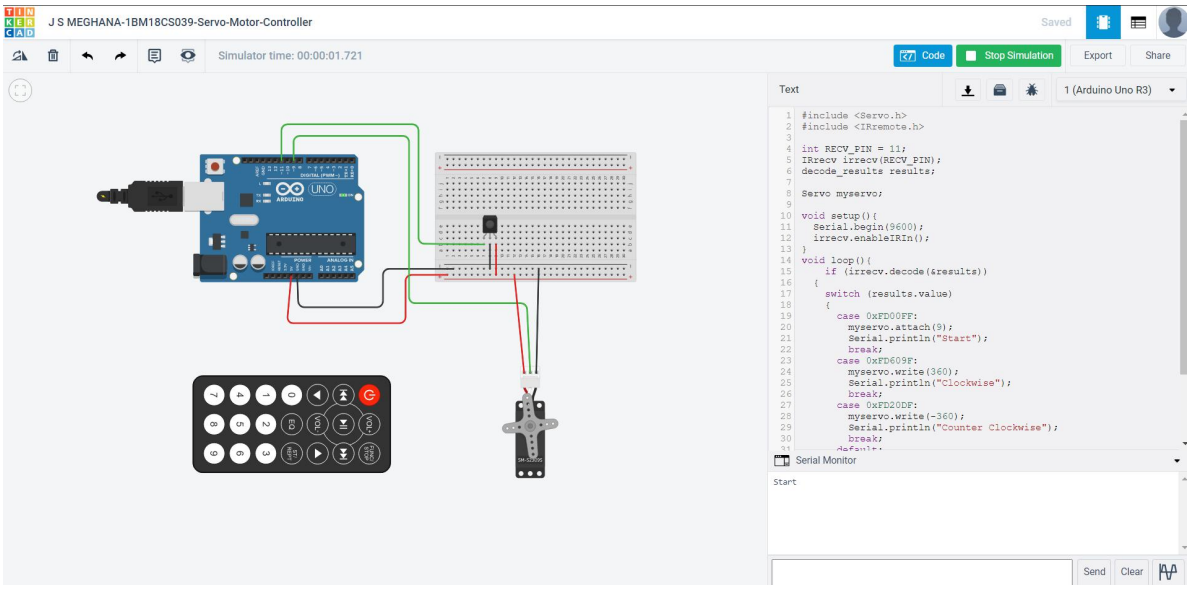
```
#include <Servo.h>
#include <IRremote.h>

int RECV_PIN = 11;
IRrecv irrecv(RECV_PIN);
decode_results results;

Servo myservo;

void setup(){
Serial.begin(9600);
irrecv.enableIRIn();
}
```

```
void loop(){
 if (irrecv.decode(&results))
{
 switch (results.value)
{
case 0xFD00FF:
myservo.attach(9);
Serial.println("Start");
break;
case 0xFD609F:
myservo.write(360);
Serial.println("Clockwise");
break;
case 0xFD20DF:
myservo.write(-360);
Serial.println("Counter Clockwise");
break;
default:
Serial.print("Unrecognized code received: 0x");
Serial.println(results.value, HEX);
break;
}
irrecv.resume();
}
}
```

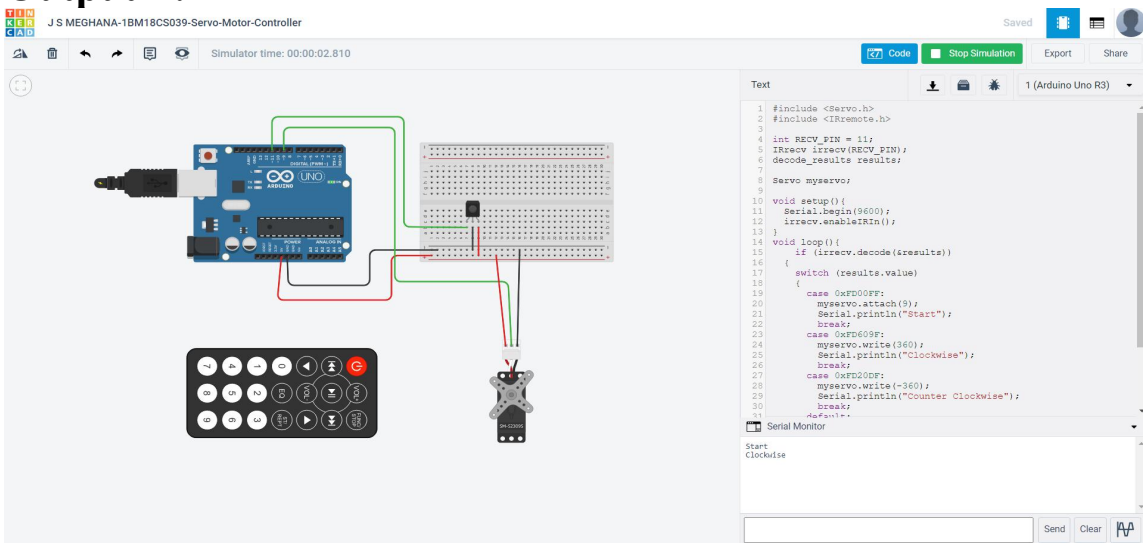
Observation /Output:

Clockwise Rotation:

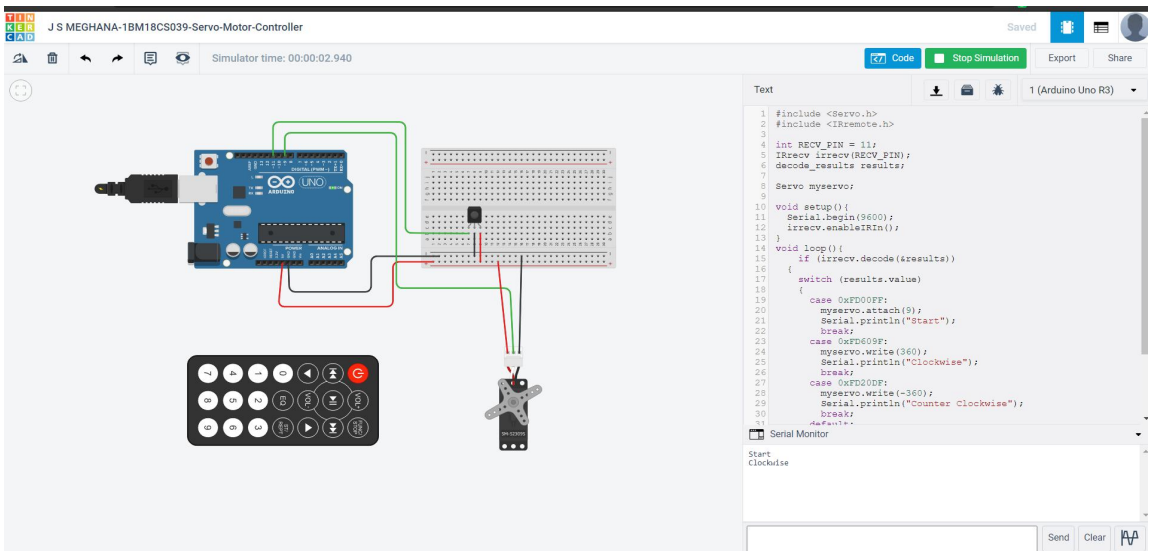
Output-1:



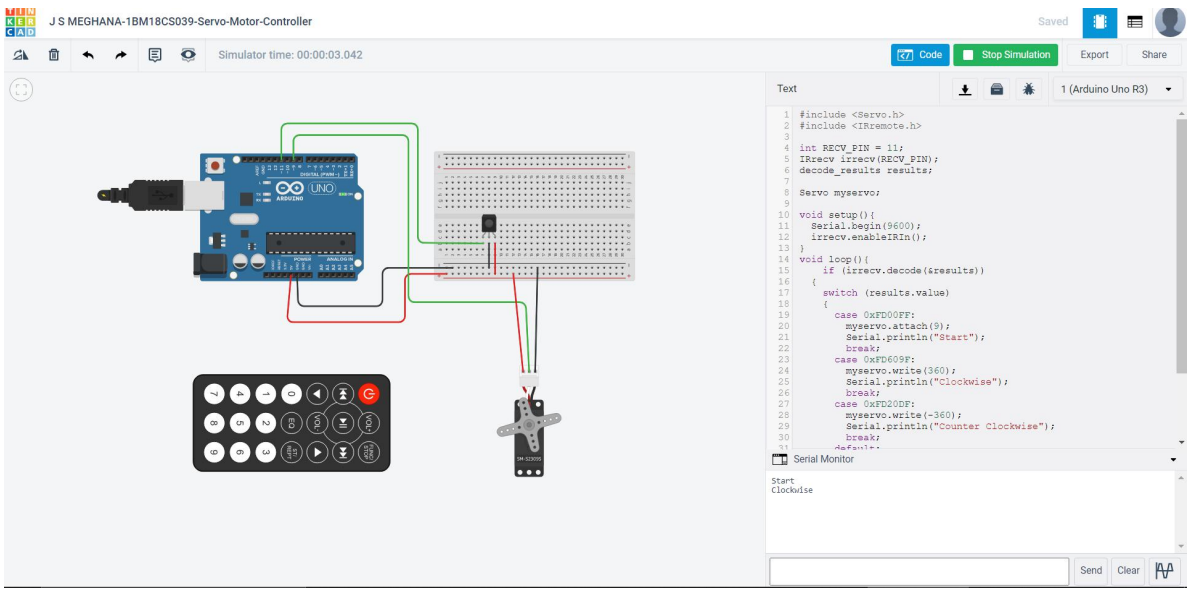
Output-2:



Output-3:

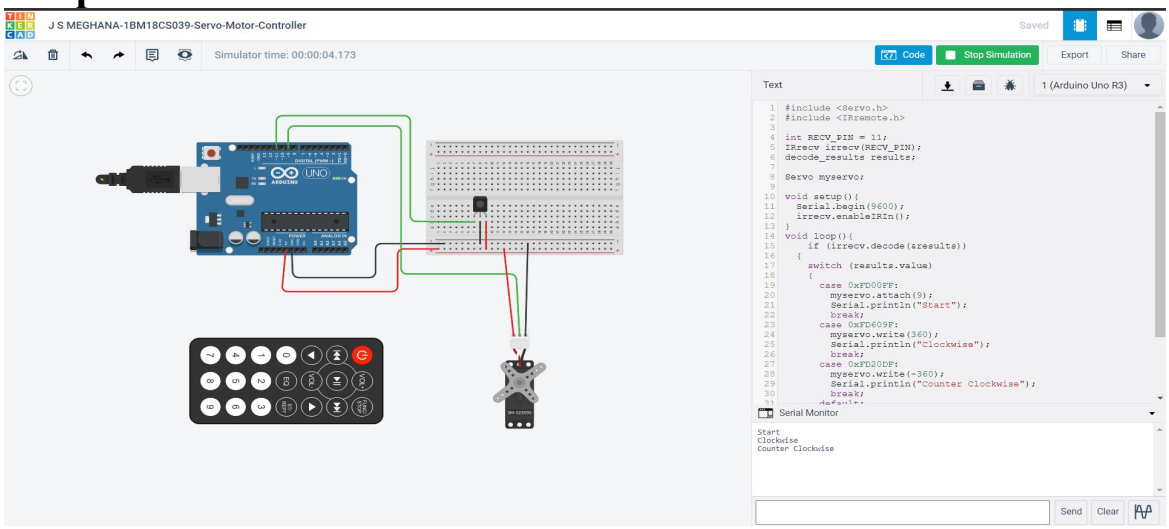


Output-4:

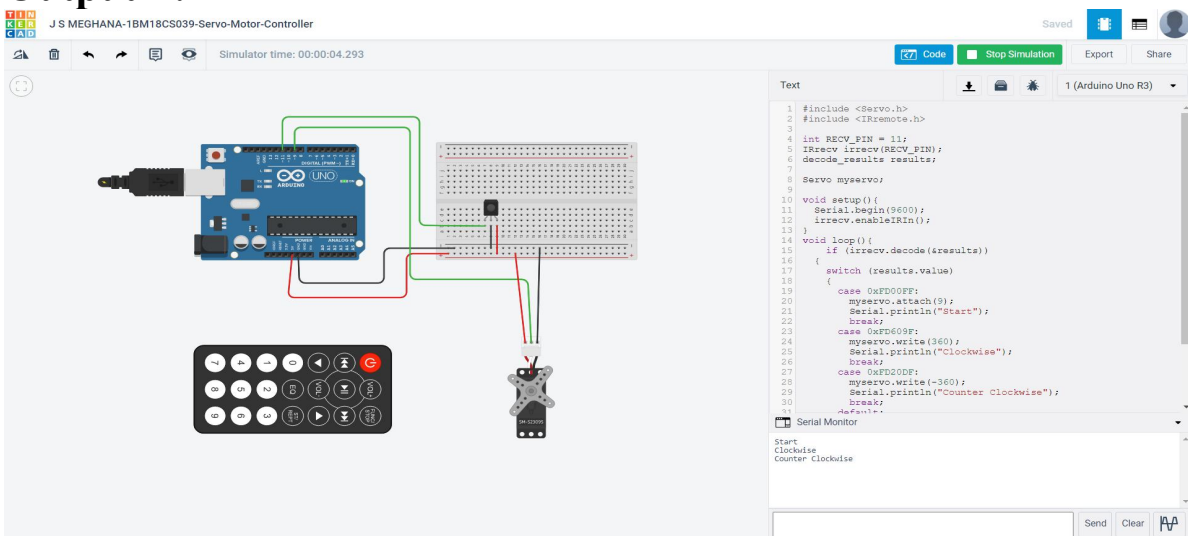


Counter Clockwise Rotation:

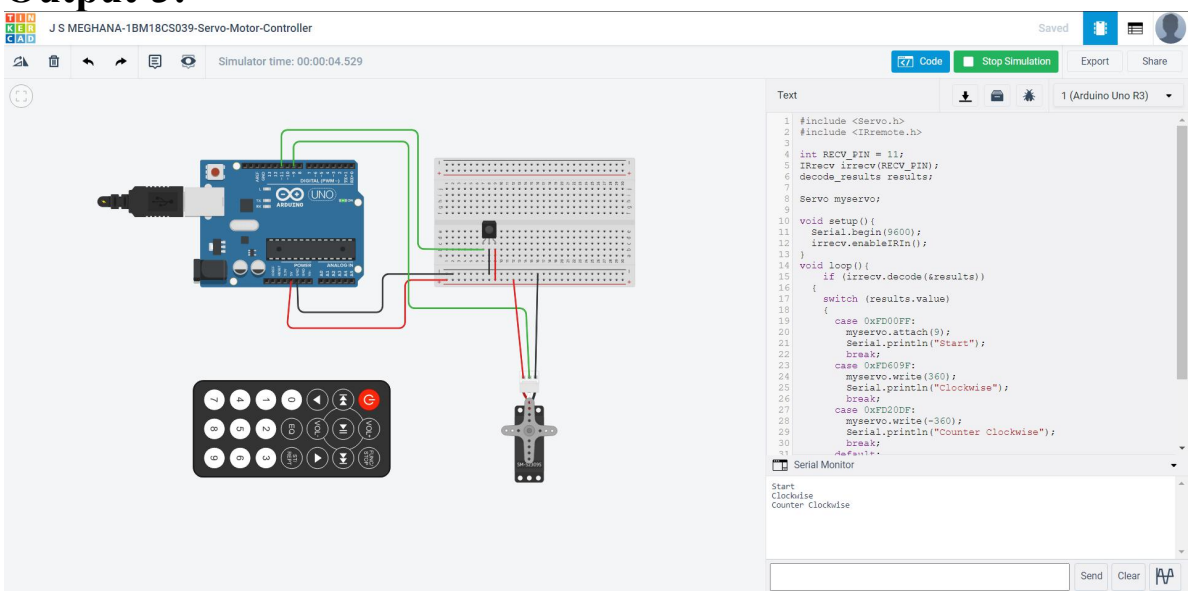
Output-1:



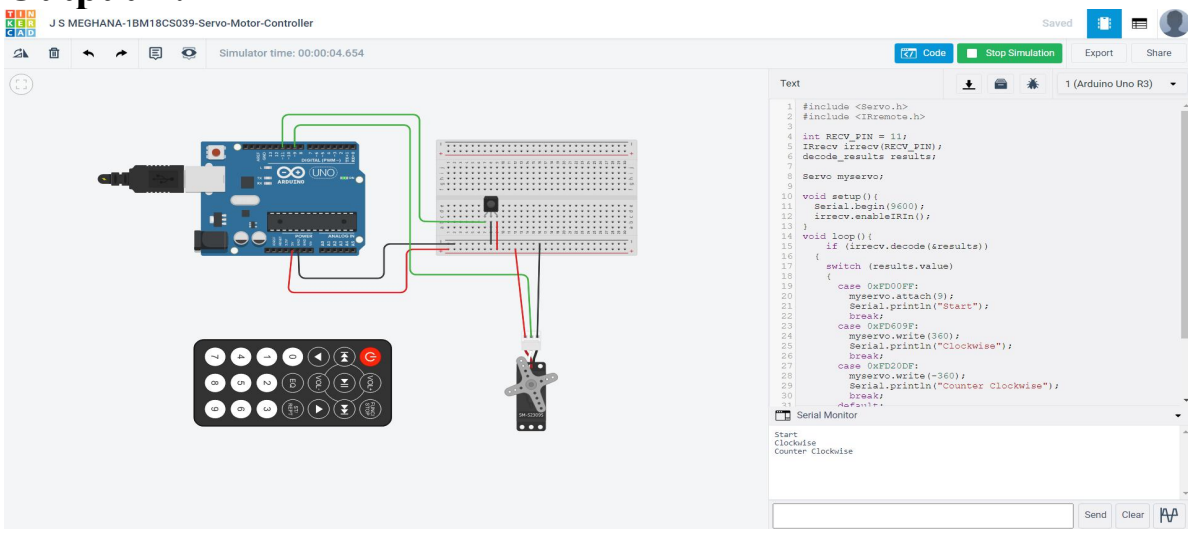
Output-2:



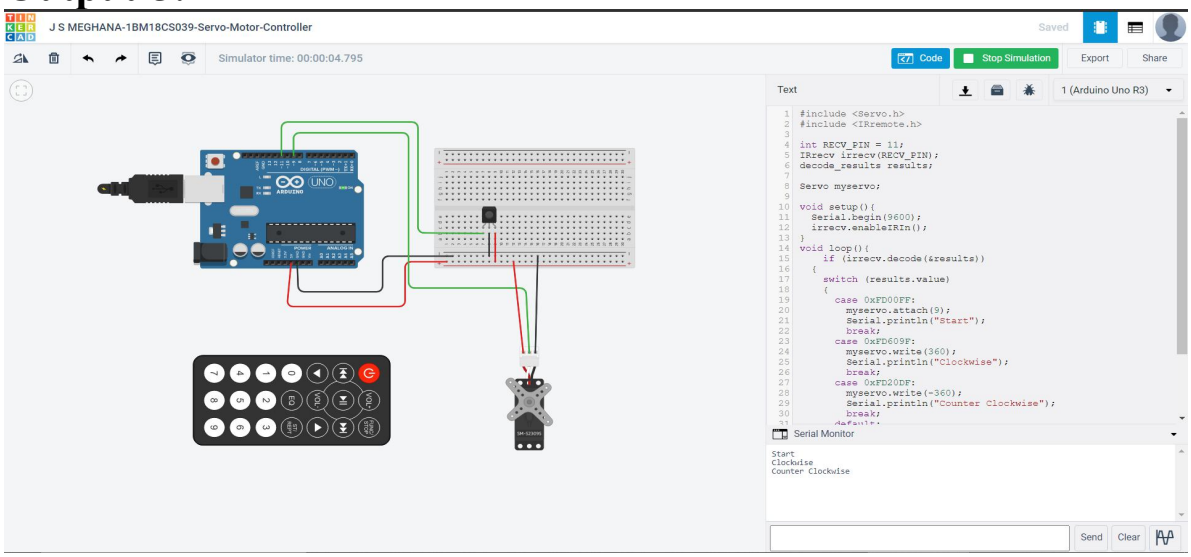
Output-3:



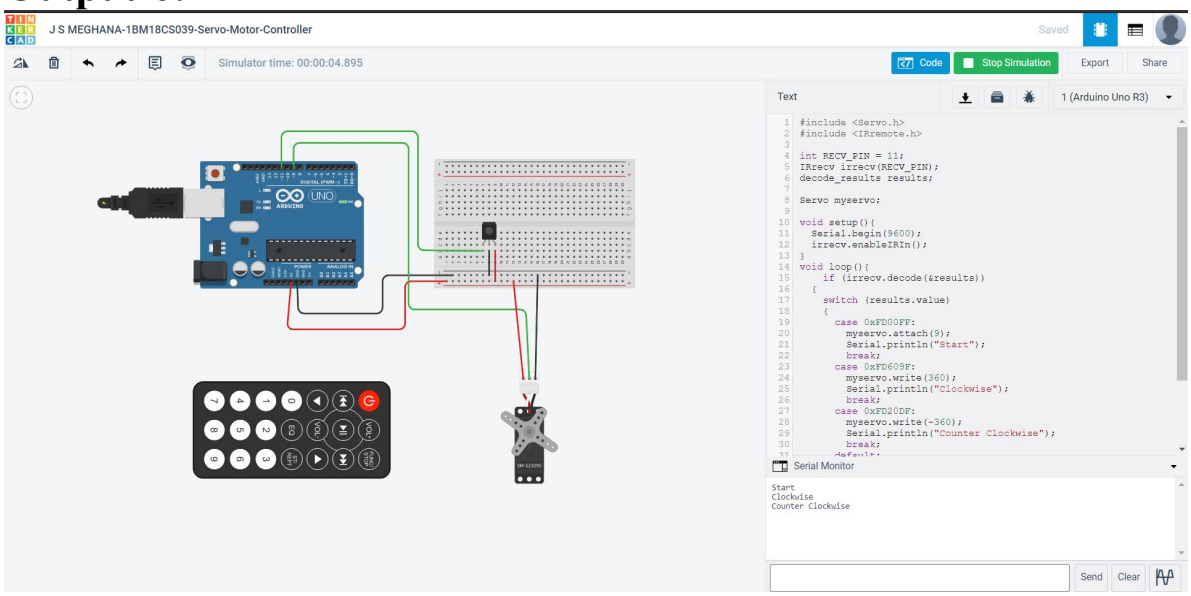
Output-4:



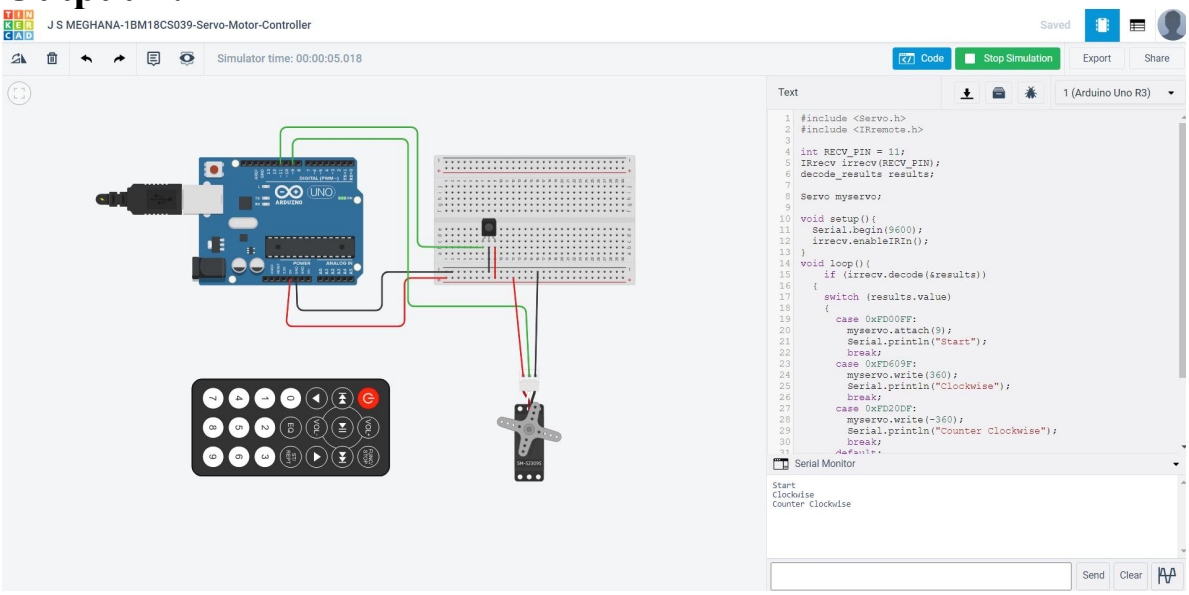
Output-5:



Output-6:



Output-7:


J S MEGHANA-1BM18CS039-Servo-Motor-Controller
Saved
Simulator time: 00:00:05.018
Code
Stop Simulation
Export
Share
Text
1 (Arduino Uno R3)
#include <Servo.h>
#include <IRremote.h>
int RECV_PIN = 11;
IRrecv irrecv(RECV_PIN);
decode_results results;
Servo myservo;
void setup(){
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}
void loop(){
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Serial.println("Clockwise");
break;
case 0xFD20DF:
myservo.write(-360);
Serial.println("Counter Clockwise");
break;
Serial Monitor
Start
Clockwise
Counter Clockwise
Send
Clear