IOT LAB - 5th Sem

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Program No : 14

Program Title : IR based SERVO Motor Controller

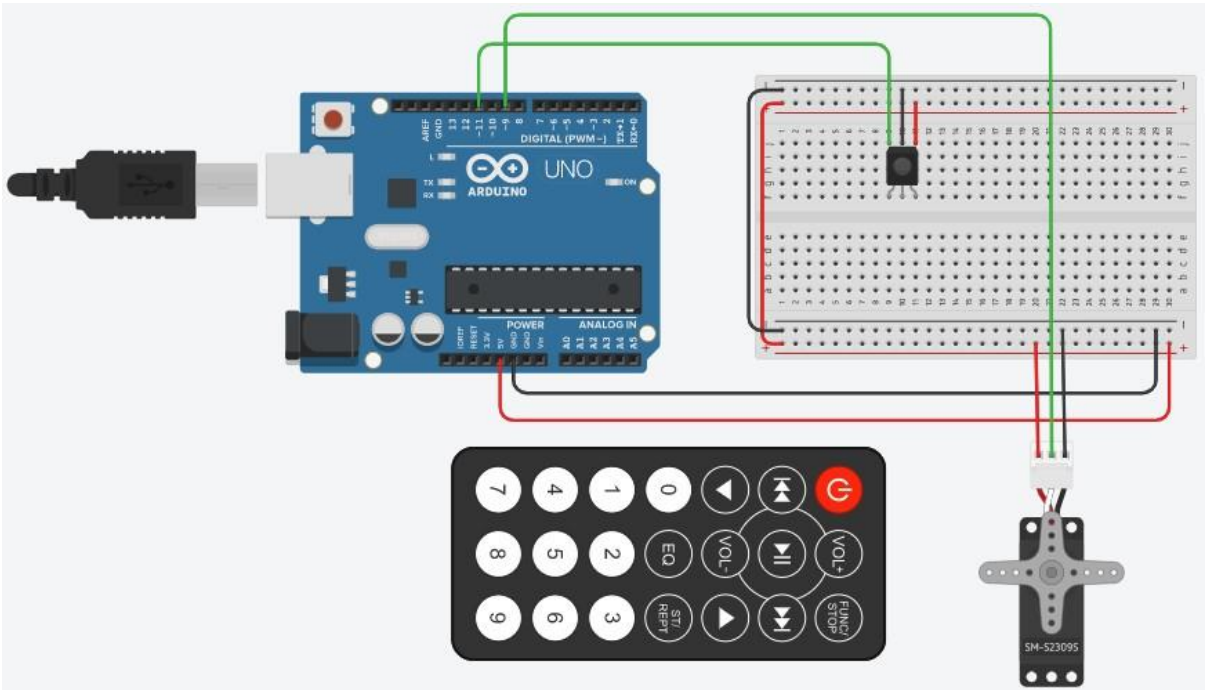
Aim :

To design IR based SERVO motor controller (Clockwise and Counter) using an Arduino Uno board.

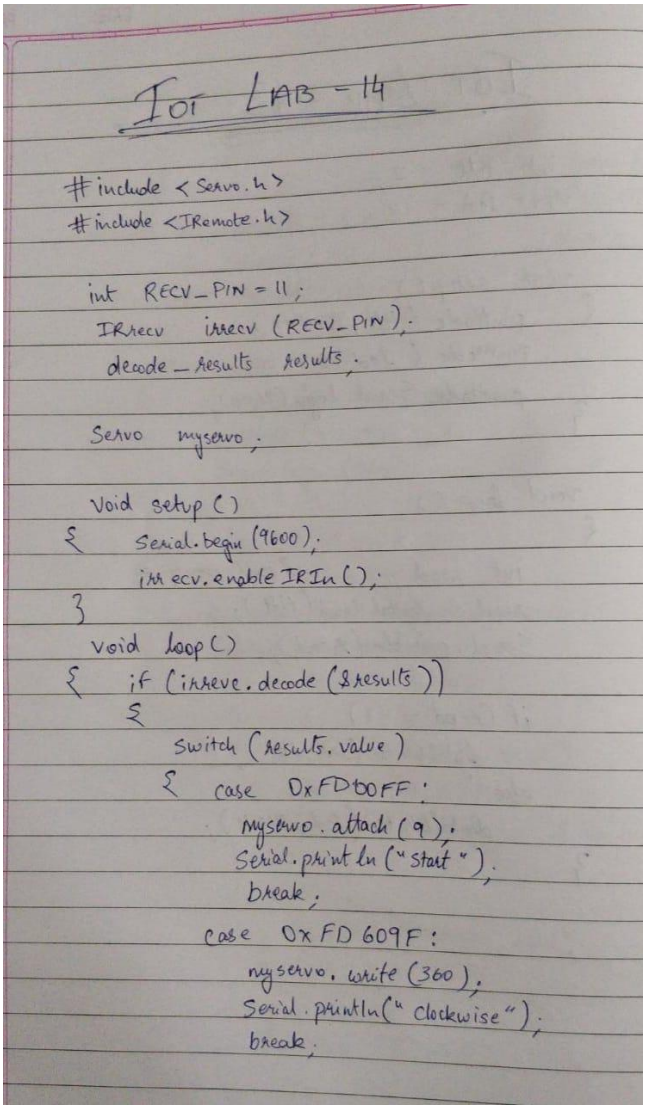
Hardware Required :

- Arduino Uno Board
- IR Sensor
- IR Remote
- Micro Servo

Circuit Diagram :



Written Code :



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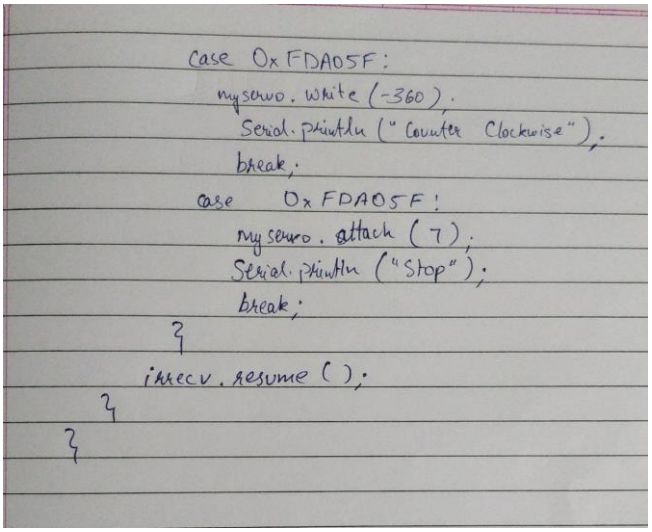
```
#include <Servo.h>
#include <IRremote.h>

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

Servo myservo;

Void setup ()
{   Serial.begin (9600);
    irrecv.enableIRIn ();
}
void loop ()
{   if (irrecve.decode (&results))
    {
        switch (results.value)
        {  case 0xFD00FF:
            myservo.attach (9);
            Serial.println ("start");
            break;
           case 0xFD609F:
            myservo.write (360);
            Serial.println("clockwise");
            break;
```



```
           case 0xFDA05F:
            myservo.write (-360);
            Serial.println ("Counter Clockwise");
            break;
           case 0xFDA05F:
            myservo.attach (7);
            Serial.println ("Stop");
            break;
        }
      irrecv.resume ();
    }
}
```

Observation /Output :

The Servo motor turns clockwise and counter clockwise upon detection of IR signal from the remote.