PROGRAM NO.:-6 – ON/OFF Using LDR

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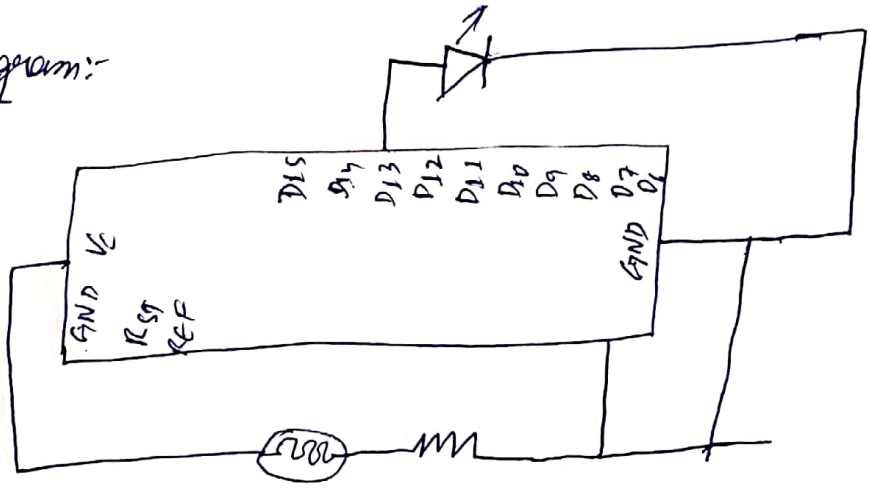
1BM18CS140

AIM:- Demonstrate to show ON/OFF of a LED using LDR – NIGHT LIGHT SIMULATOR.

HARDWARE Requirements:- Arduino board led, breadboard, resistor, connecting wire, photoresistor.

Circuit Diagram:-



Code:-

```
const int ledPin = 6;
const int ldrPin = A0;
void setup()
{ Serial.begin(9600);
  pinMode(ledPin, OUTPUT);
  pinMode(ldrPin, INPUT);
}
void loop()
  { int ldrstatus = analogRead(ldrPin);
    Serial.println(ldrStatus);
  if (ldrStatus <= 10)
  { digitalWrite(ledPin, HIGH);
    Serial.println("LDR is dark, LED is ON");}

else { digitalWrite(ledPin, LOW);
  Serial.println("-----:");
}}
```

PROGRAM No. 7 → PIR SENSOR

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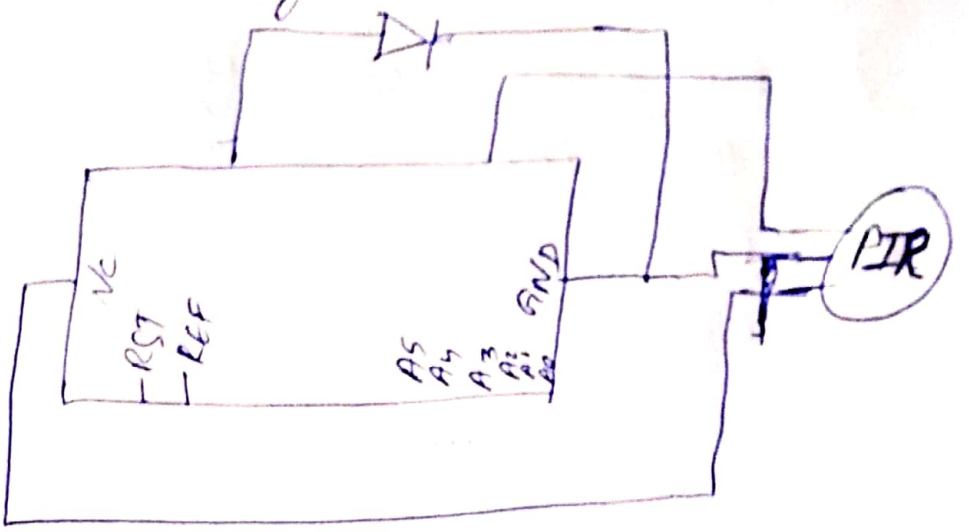
Aim:- Demonstrate the working of a passive infrared sensor.

Hardware Requirements:- Arduino board, LED, resistor, bread board, connecting wires, PIR sensor

Circuit Diagram:-



CODE:-

```
int led = 13;
  int sensor = 6;
int state = LOW;
int val = 0;
void setup()
{  pinMode (led, OUTPUT);
   pinMode (sensor, INPUT);
   serial.begin (9600); }

void loop()
{   val = digitalRead (sensor);
    if ( val == HIGH)
    { digitalWrite ( led, HIGH);
      delay (10);
    if ( state == LOW)
    { serial println ("Motion detected!");
      state HIGH; }}
```

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```
else {
    digitalWrite(led, LOW);
    delay(10); }
if(state == HIGH)
{  Serial.println("Motion stopped");
    state = LOW;
}}}
```


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