

Program no 3

Program Title Night light simulation

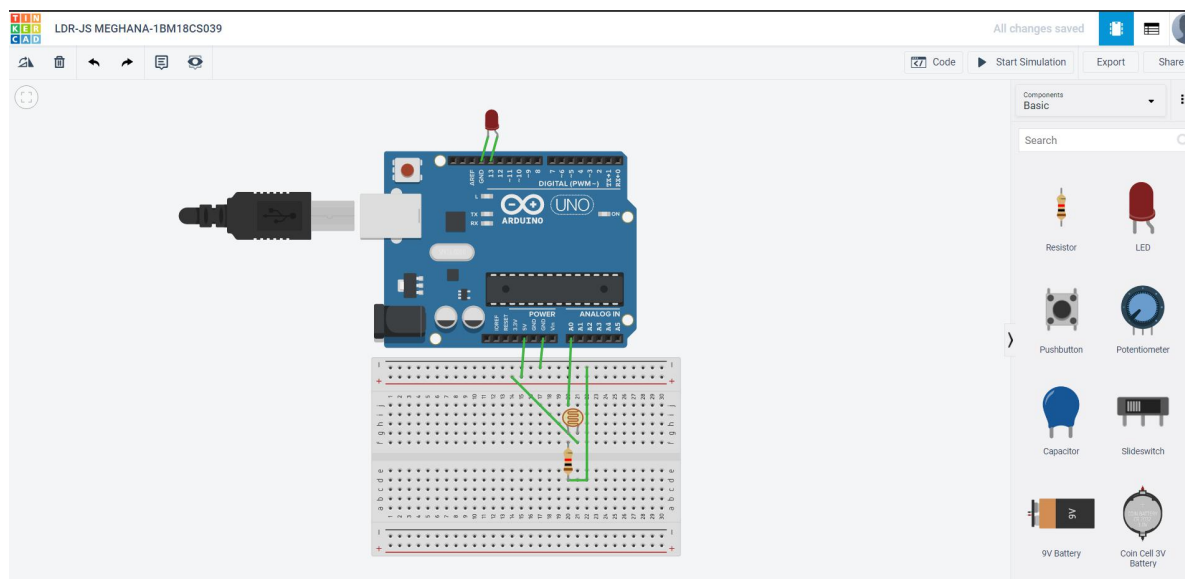
Aim

Demonstrate to show ON/OFF of a LED using LDR- Night Light simulation.

Hardware Required

1. Arduino Uno Board
2. Photoresistor
3. 1K ohm resistor
4. Led

Circuit Diagram



Code:

```
const int ledPin = 13;
const int ldrPin = A0;
void setup()
{
  Serial.begin(9600);
  pinMode(ledPin, OUTPUT);
  pinMode(ldrPin, INPUT);
}
void loop() {
  int ldrStatus = analogRead(ldrPin);
  if (ldrStatus <= 200)
  {
    digitalWrite(ledPin, HIGH);
    Serial.print("Its DARK, Turn on the LED : ");
    Serial.println(ldrStatus);
  }
  else
  {
  }
```

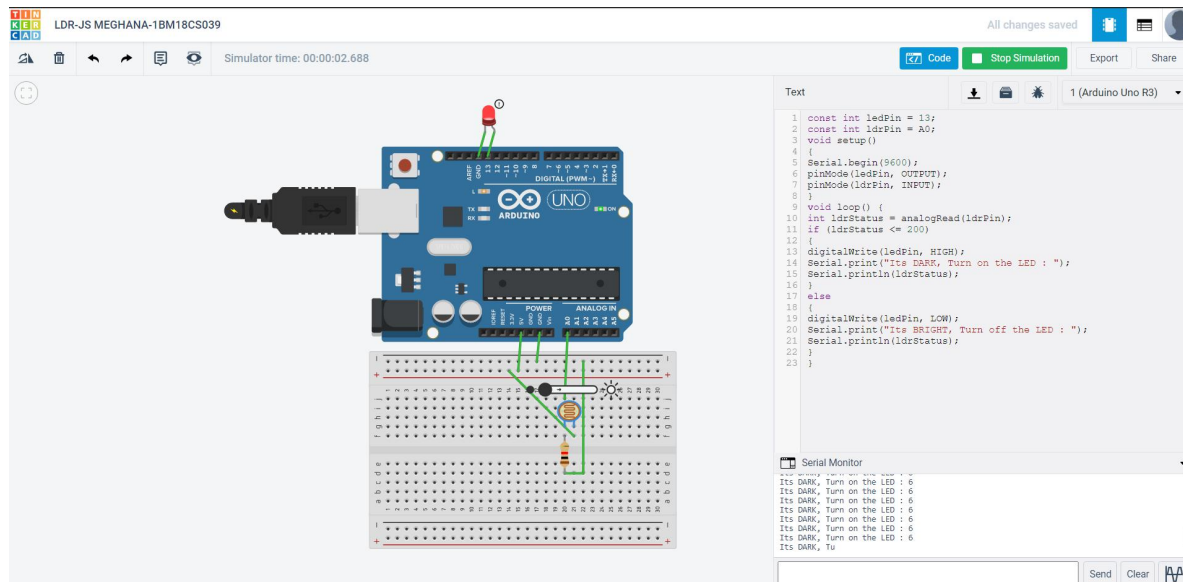
```

digitalWrite(ledPin, LOW);
Serial.print("Its BRIGHT, Turn off the LED : ");
Serial.println(ldrStatus);
}
}

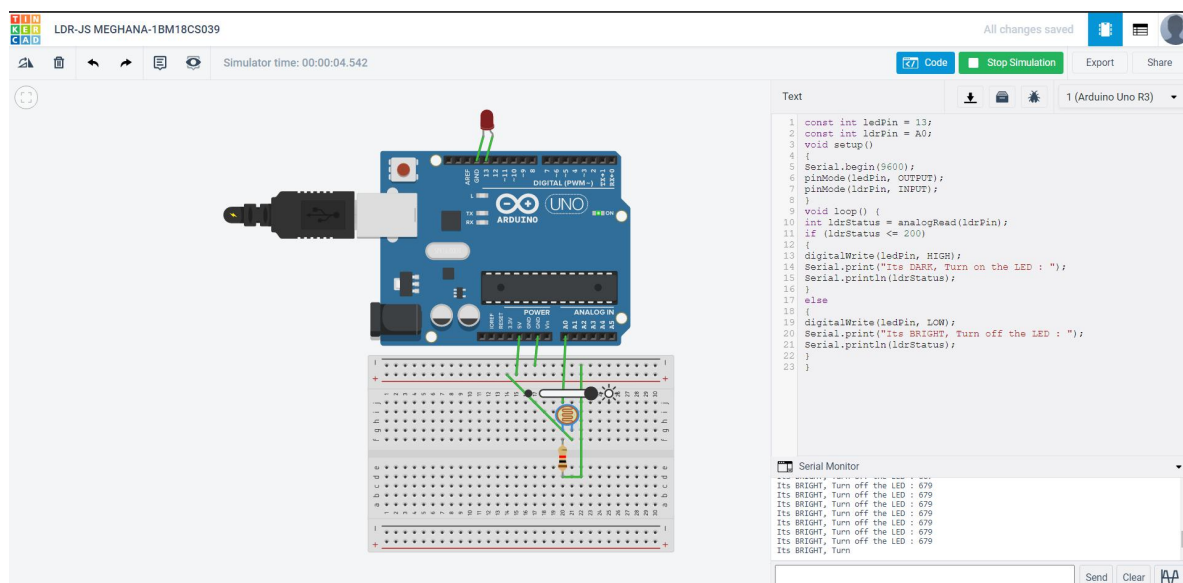
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Observation /Output

Output-1



Output-2



When we change the Photoresistor's resistance from high to low and vice versa we get the above outputs.