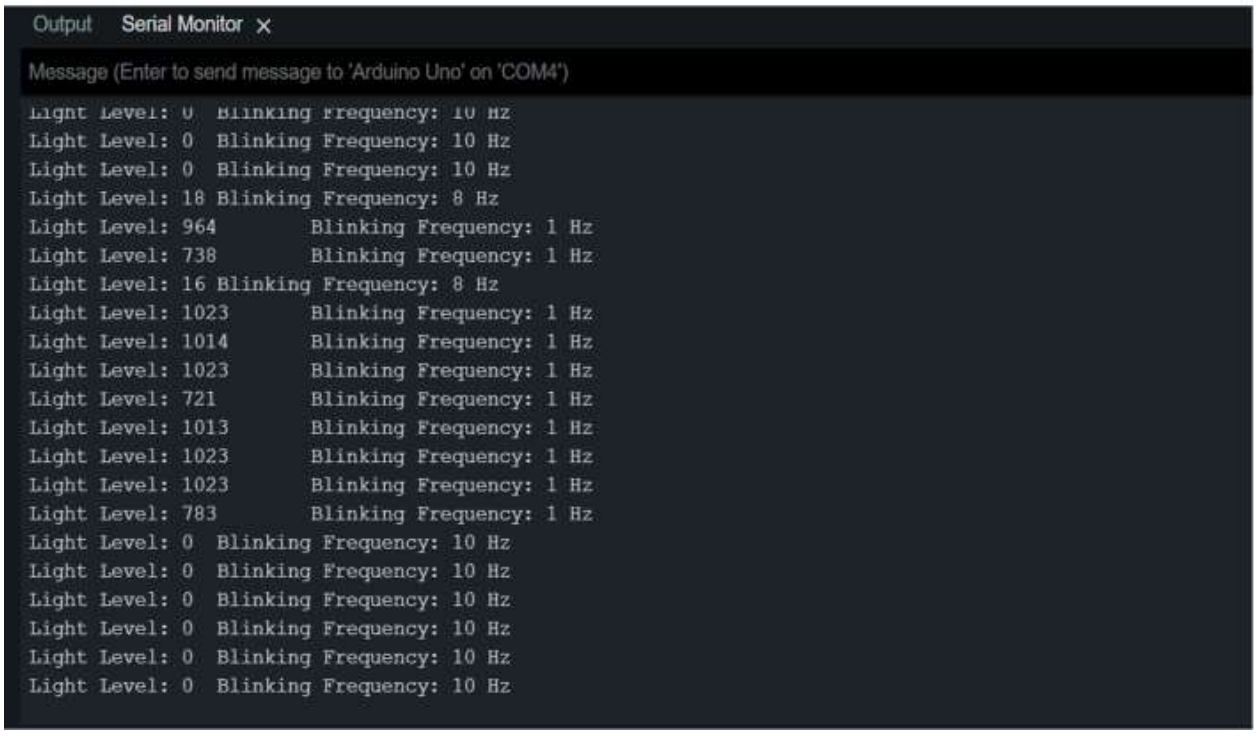
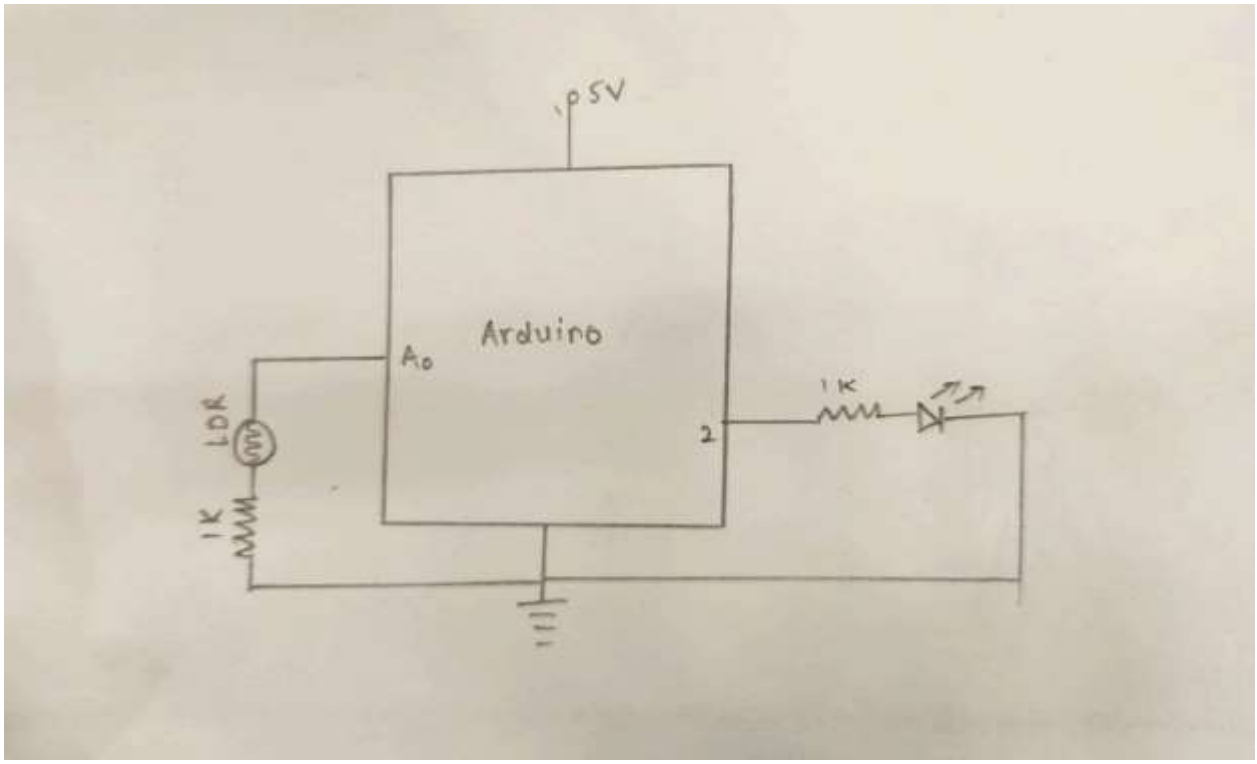
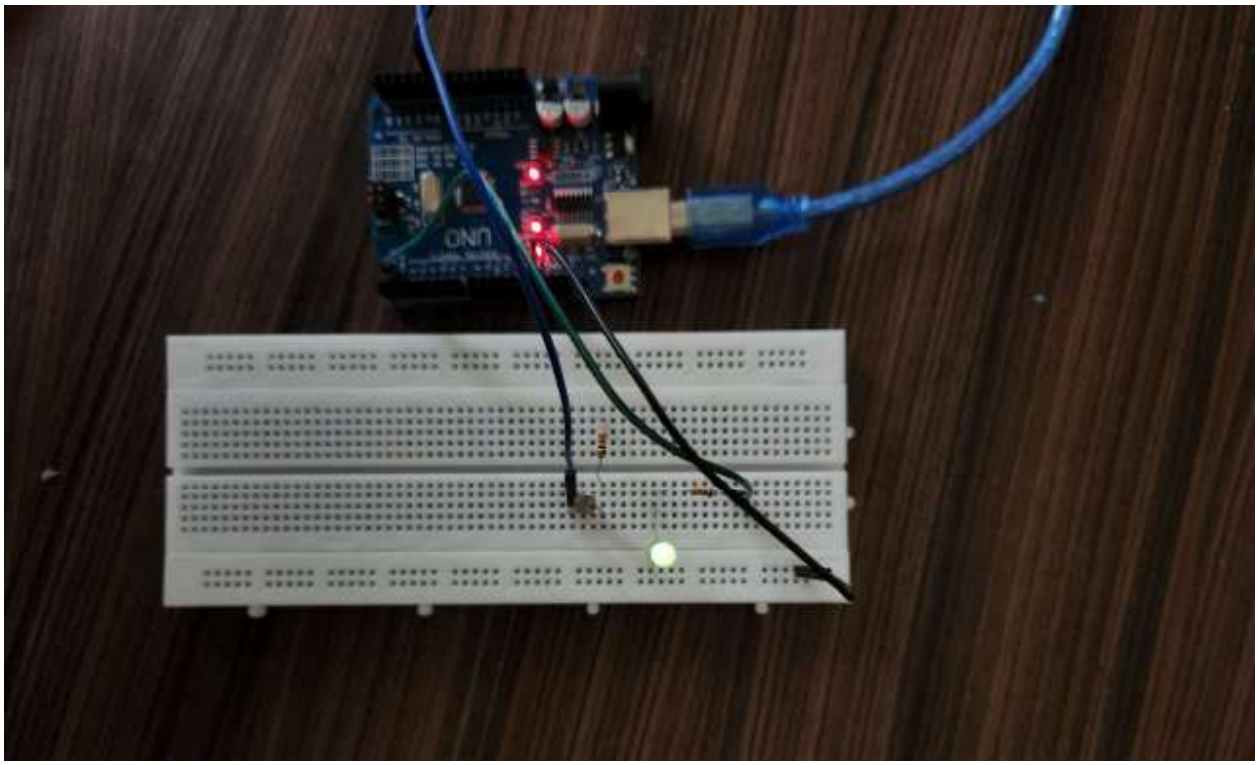
```
/*
Experiment No. :  10
Statement      : Blink an LED in accordance with the brightness.
Blinking frequency increases with increase in brightness.
Date of Exp.   :  xx/xx/xxxx
Author         :  Reva Dhiran (A-10)
*/
```

Code:

```
const int ledPin = 2;           // Pin number for the LED
const int ldrPin = A0;         // Pin number for the ldr

void setup() {
pinMode(ledPin, OUTPUT);
Serial.begin(9600);
}

void loop() {
int lightLevel = analogRead(ldrPin);
// Map the light level to a blinking frequency
int blinkInterval = map(lightLevel, 0, 1023, 100, 1000);
digitalWrite(ledPin, HIGH);           // Turn on the LED
delay(blinkInterval);
```

```
digitalWrite(ledPin, LOW);         // Turn off the LED

delay(blinkInterval);              // Print the light level and
blinking frequency to the serial monitor

Serial.print("Light Level: ");

Serial.print(lightLevel);

Serial.print("\tBlinking Frequency: ");

Serial.print(1000 / blinkInterval);  // Frequency in Hz

Serial.println(" Hz");

}
```




5V
Arduino
A0
LDR
1K
1K
2