Program no 03

Program Title: POTENTIOMETER-LED

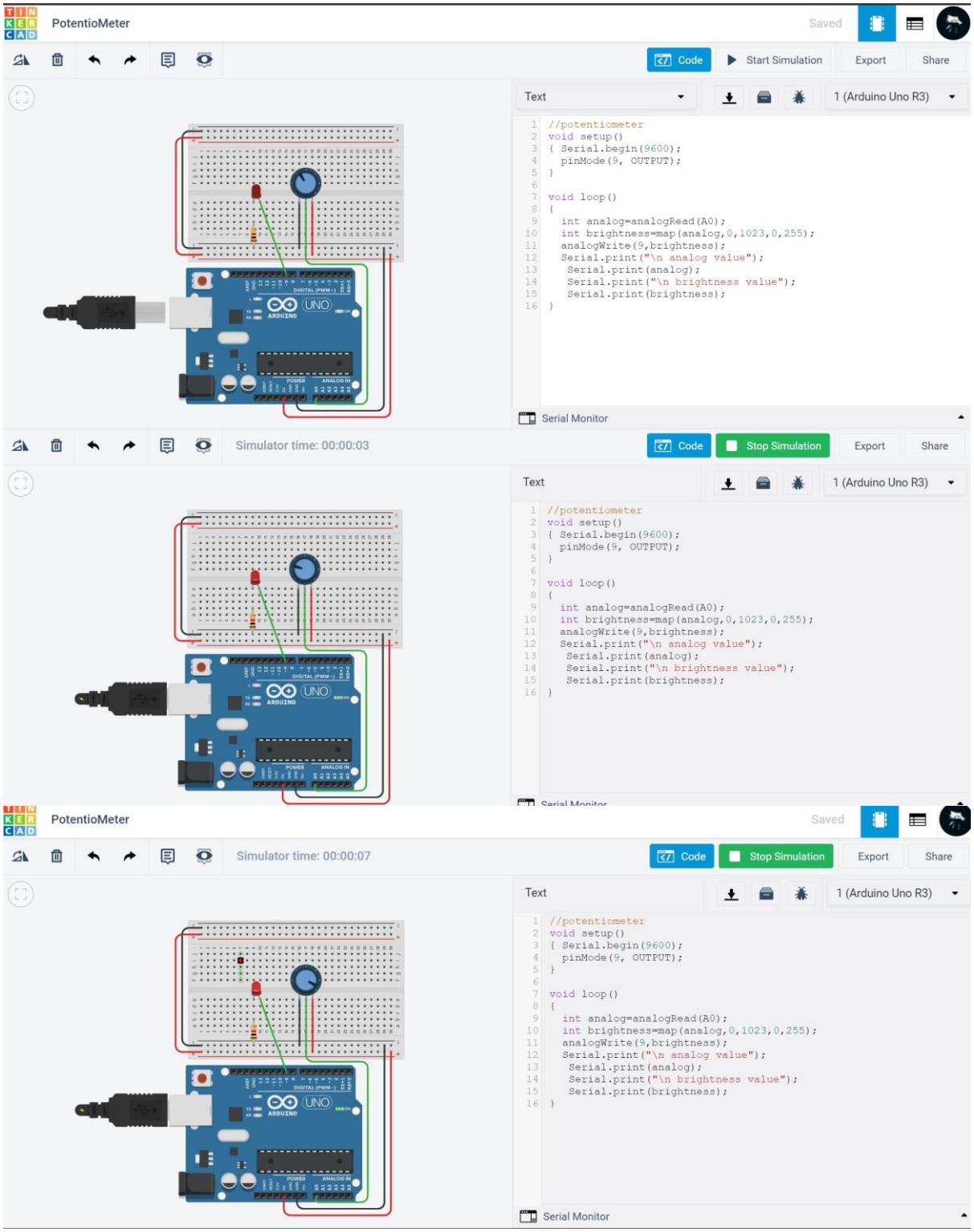
Aim

To demonstrate brightness of LED according to Potentiometer resistance

Hardware Required

- Arduino Board
- Led Light
- 1 ohm resistor
- 1 Potentiometer

Circuit Diagram -



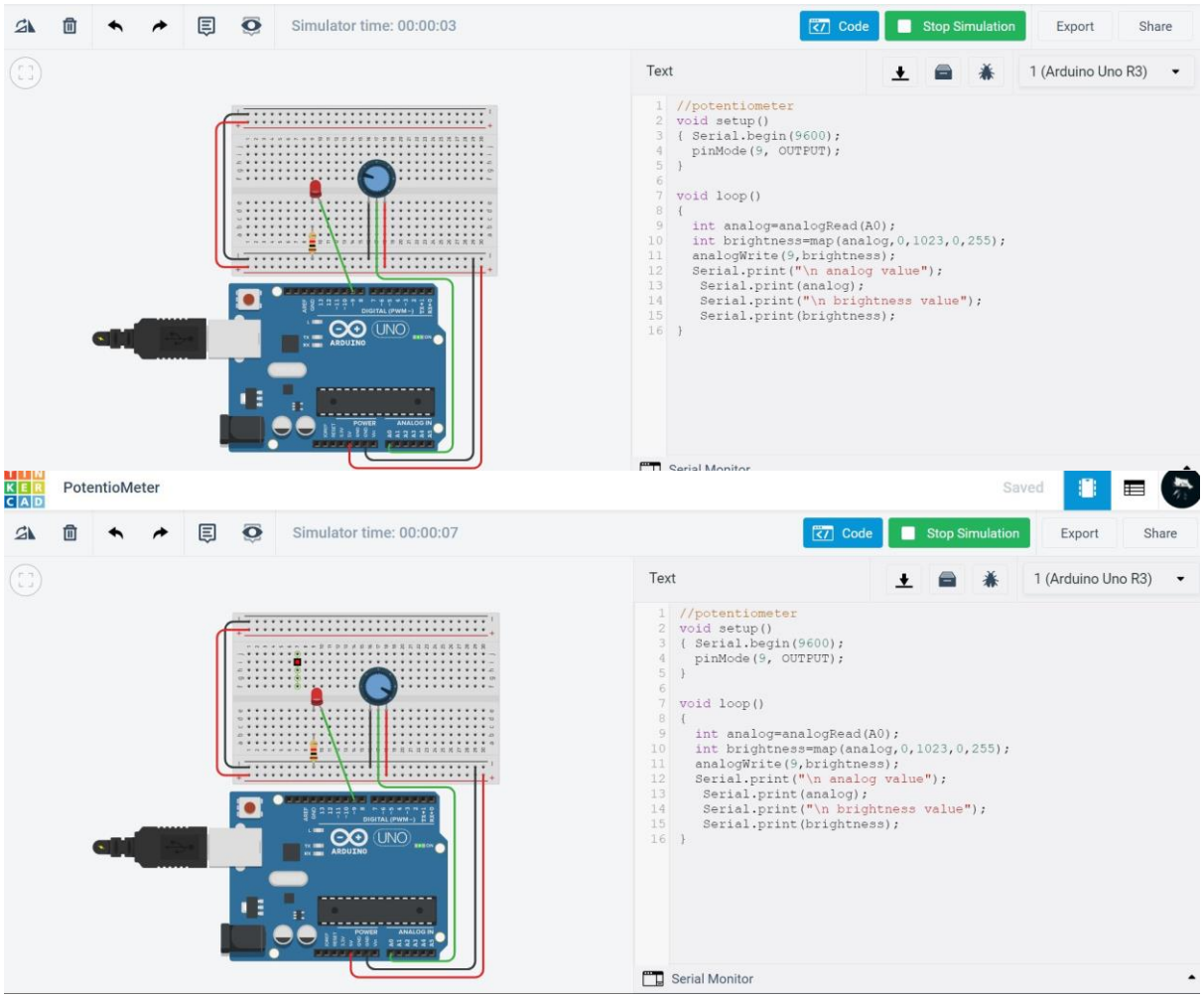
Code:

//potentiometer

```
void setup()
{ Serial.begin(9600);
  pinMode(9, OUTPUT);
}

void loop()
{
  int analog=analogRead(A0);
  int brightness=map(analog,0,1023,0,255);
  analogWrite(9,brightness);
  Serial.print("\n analog value");
   Serial.print(analog);
   Serial.print("\n brightness value");
   Serial.print(brightness);
}
```

Observation /Output:


Simulator time: 00:00:03
Code
Stop Simulation
Export
Share
Text
1 (Arduino Uno R3)
//potentiometer
void setup()
{ Serial.begin(9600);
pinMode(9, OUTPUT);
}
void loop()
{
int analog=analogRead(A0);
int brightness=map(analog,0,1023,0,255);
analogWrite(9,brightness);
Serial.print("\n analog value");
Serial.print(analog);
Serial.print("\n brightness value");
Serial.print(brightness);
}
PotentioMeter
Saved
Simulator time: 00:00:07
Code
Stop Simulation
Export
Share
Text
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Serial.print("\n analog value");
Serial.print(analog);
Serial.print("\n brightness value");
Serial.print(brightness);
}
Serial Monitor