

# IOT Lab - 5th Sem

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**Program No : 03**

**Program Title : LED Fading Program**

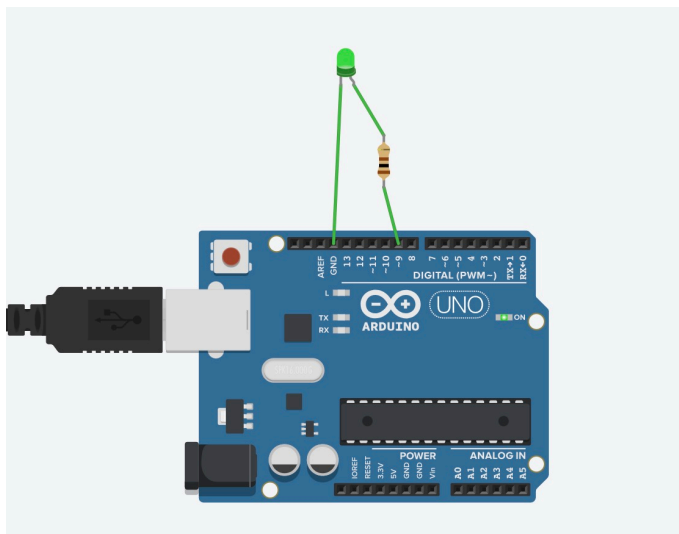
## **Aim :**

To fade a led bulb on & off using an Arduino Uno board.

## **Hardware Required :**

- Arduino Uno Board
- Led Bulb
- Resistors - 100 ohm

## **Circuit Diagram :**



## Written Code :

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### Fading Program code :

```
int led = 9;
int brightness = 0;
int fadeAmount = 5;

void setup() {
  pinMode(led, OUTPUT);
}

void loop() {
  analogWrite(led, brightness);
  brightness = brightness + fadeAmount;
  if (brightness == 0 || brightness == 255) {
    fadeAmount = -fadeAmount;
  }
  delay(30);
}
```



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## Observation / Output :

The LED bulb was faded on and off with a delay of 30ms