

Program no: 3

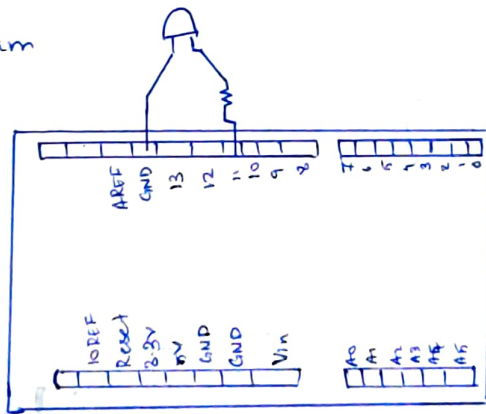
Program Title: LED fading

Aim: To demonstrate LED Fading

Hardware Required

- 1) Arduino Uno board
- 2) LED
- 3) $1K\Omega$ Resistor
- 4) connecting wires

Circuit diagram



Code:

```
int bright = 0;
void setup()
{
  pinMode(11, OUTPUT);
}
void loop()
{
  for (bright = 0; bright <= 255; bright += 5) {
    analogWrite(11, bright);
    delay(30);
  }
  for (bright = 255; bright >= 0; bright -= 5) {
    analogWrite(11, bright);
    delay(30);
  }
}
```

Observation/output:

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The LED turns on and slowly fades off with 30 millisecond intervals.