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Program Title = LED FADING (using Potentiometer)

Aim = To demonstrate LED fading using potentio
-meter

Hardware Required
Arduino Board
LED
Potentiometer.

CODE =

```
int LED_PIN = 9;
void setup()
{ serial begin (9600);
  Pinmode (LED_PIN, OUTPUT);
}
void loop()
{ int analogvalue = analogRead [A0];
  int brightness = map (analogvalue, 0, 1023, 0, 255);
  analogwrite ( LED_PIN, brightness).
  Serialprint ("Analog:   ").
  serialprint (" Brightness: ").
  serial pintln (brightness).
  delay [100];
}
```

Circuit diagram.

3V3  5V          VIN

RST

AREF          D13
              D12
              D11
              D10
Arduino        D9
               D8
               D7
               D6
A0             D5
A1             D4
A2             D3
A3             D2
A4             D1
A5             D0

              LED

GND