

BLINKING AN LED

1 AIM

TO BLINK AN LED USING POWER SOURCE(ARDUINO)

2 PARTS

Components required for making the circuit are-

- 1.LED(Light Emitting Diode)
- 2.POWER SOURCE(Arduino)
- 3.RESISTOR
- 4.JUMPER WIRES
- 5.BREADBOARD

3 Arduino program for blinking the LED

```
void setup()
{
  pinMode(13,OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  digitalWrite(13, HIGH);
  delay(1000);
  digitalWrite(13, LOW);
  delay(1000);
}
```

4 Hardware connections:

- Most Arduinos already have an LED connected to pin 13, so you may not need any additional circuitry.

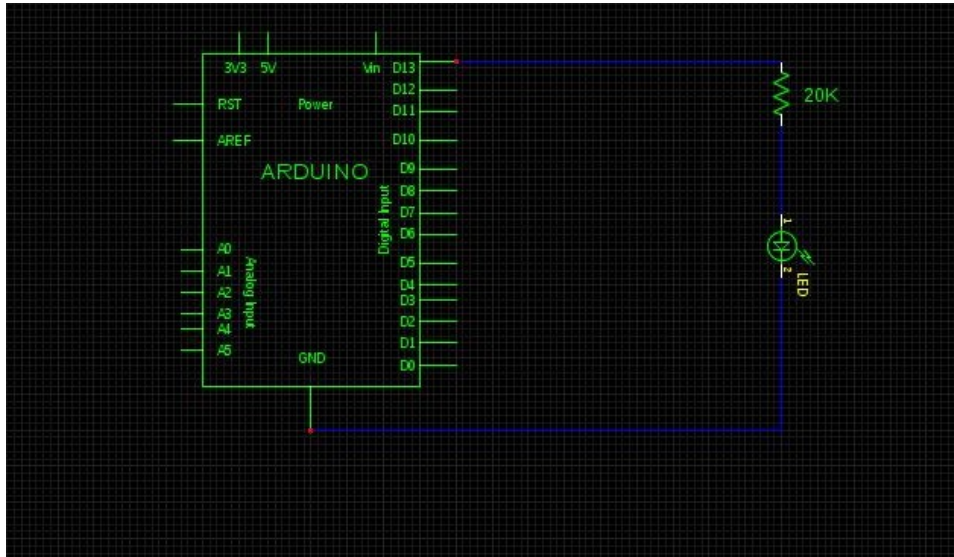


Figure 1: LED BLINKING



Figure 2: ARDUINO DATASHEET

- But if you'd like to connect a second LED to pin 13, or use a different pin, follow these steps:

- Connect the positive side of your LED (longer leg) to Arduino digital pin 13 (or another digital pin, don't forget to change the code to match).
- Connect the negative side of your LED (shorter leg) to a 20K Ohm resistor. Connect the other side of the resistor to ground.
- We always use resistors between the Arduino and LEDs to keep the LEDs from burning out due to too much current.
- Upload your code to arduino and the led starts blinking.