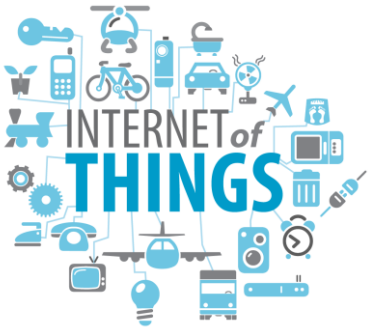
UNIVERSITY OF SCIENCE - VNUHCM
Faculty of Information Technology

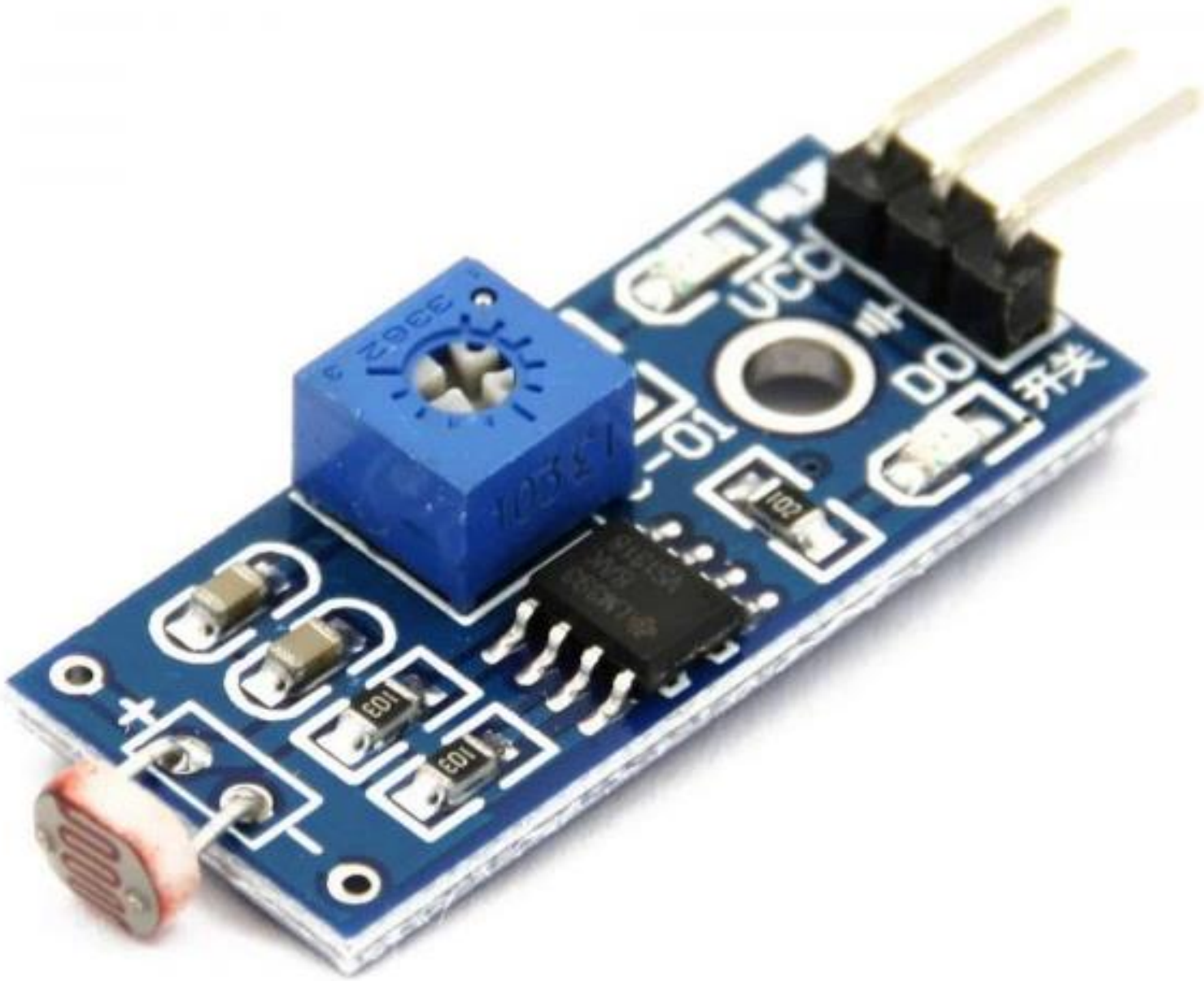
INTERNET OF THINGS

1.7

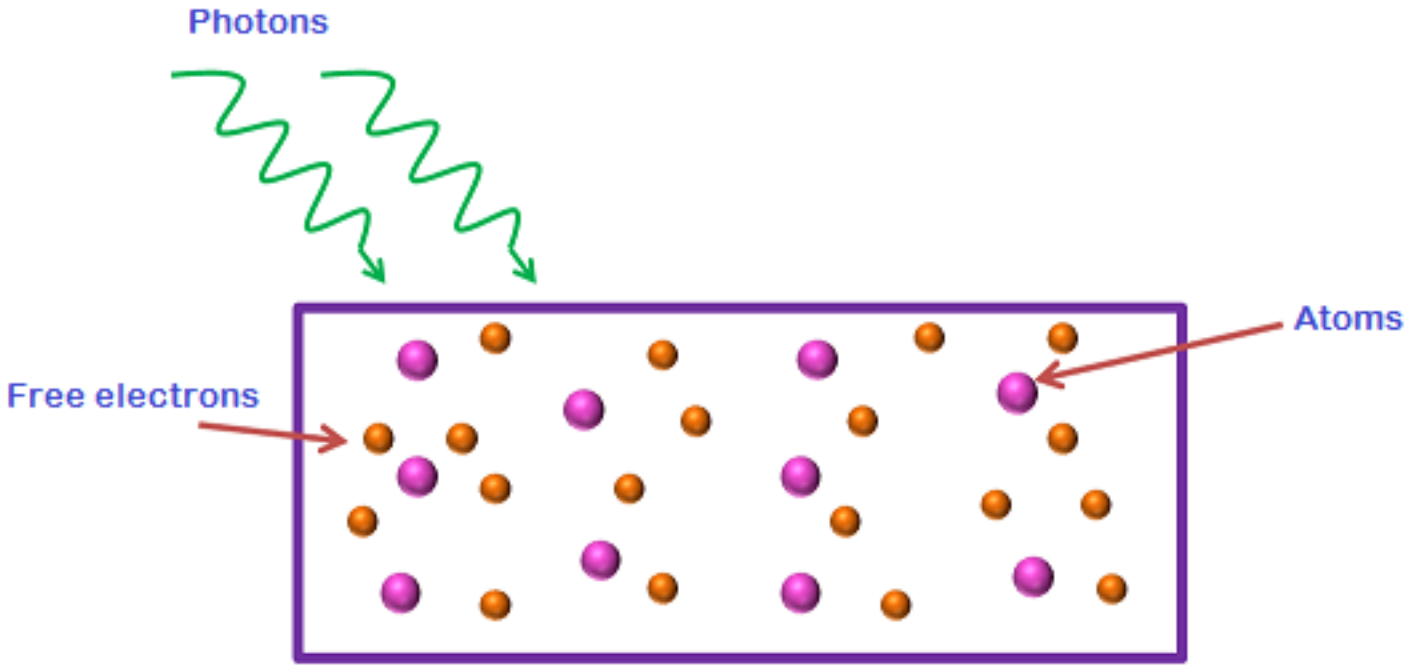
PHOTORESISTOR SENSOR



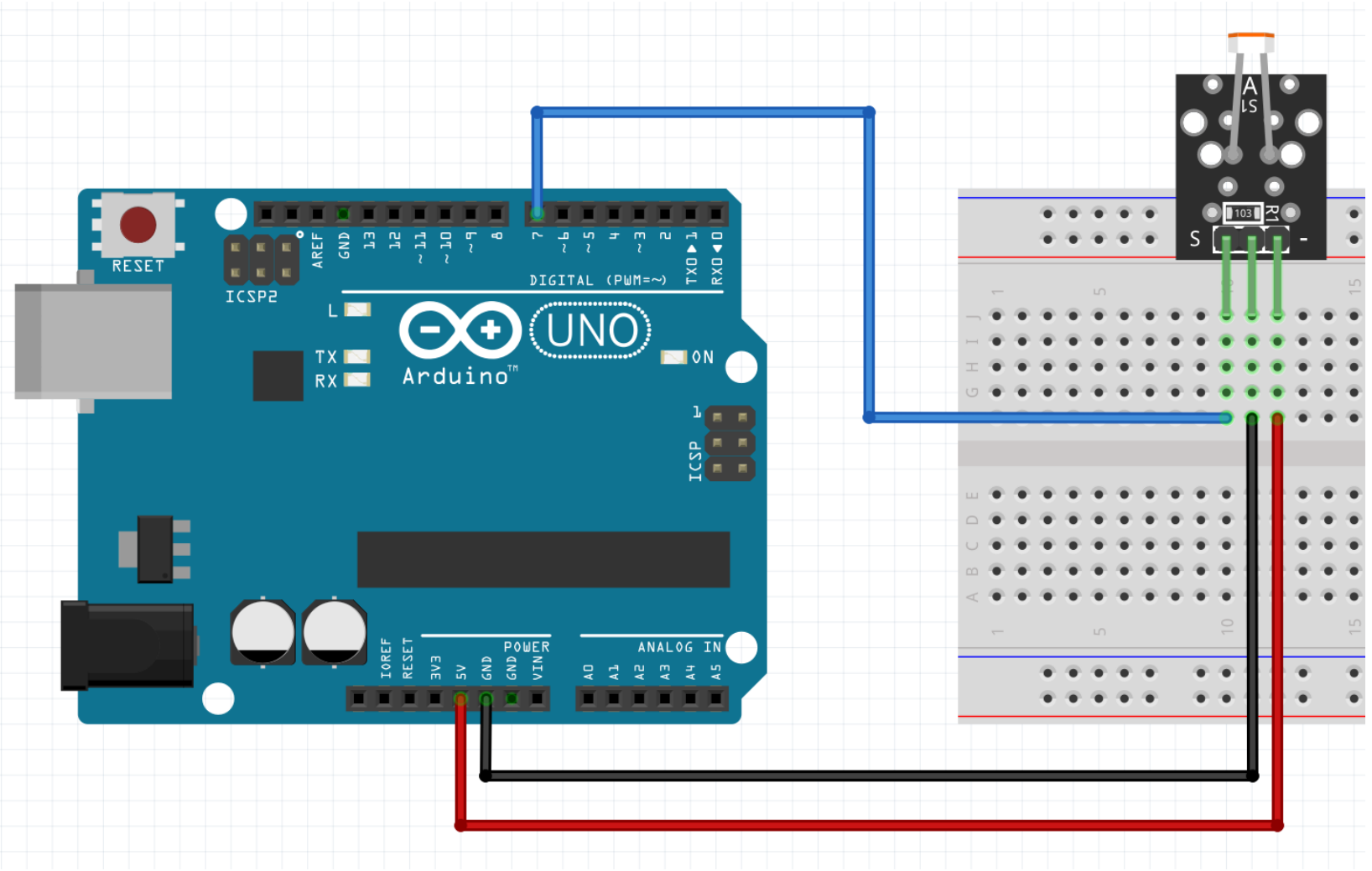
Photoresistor



How photoresistor work?




Light Dependant Resistor
(LDR)
Op-amp LM393
LED ngõ ra digital
Biến trở
LED báo nguồn
A0
D0
GND
VCC

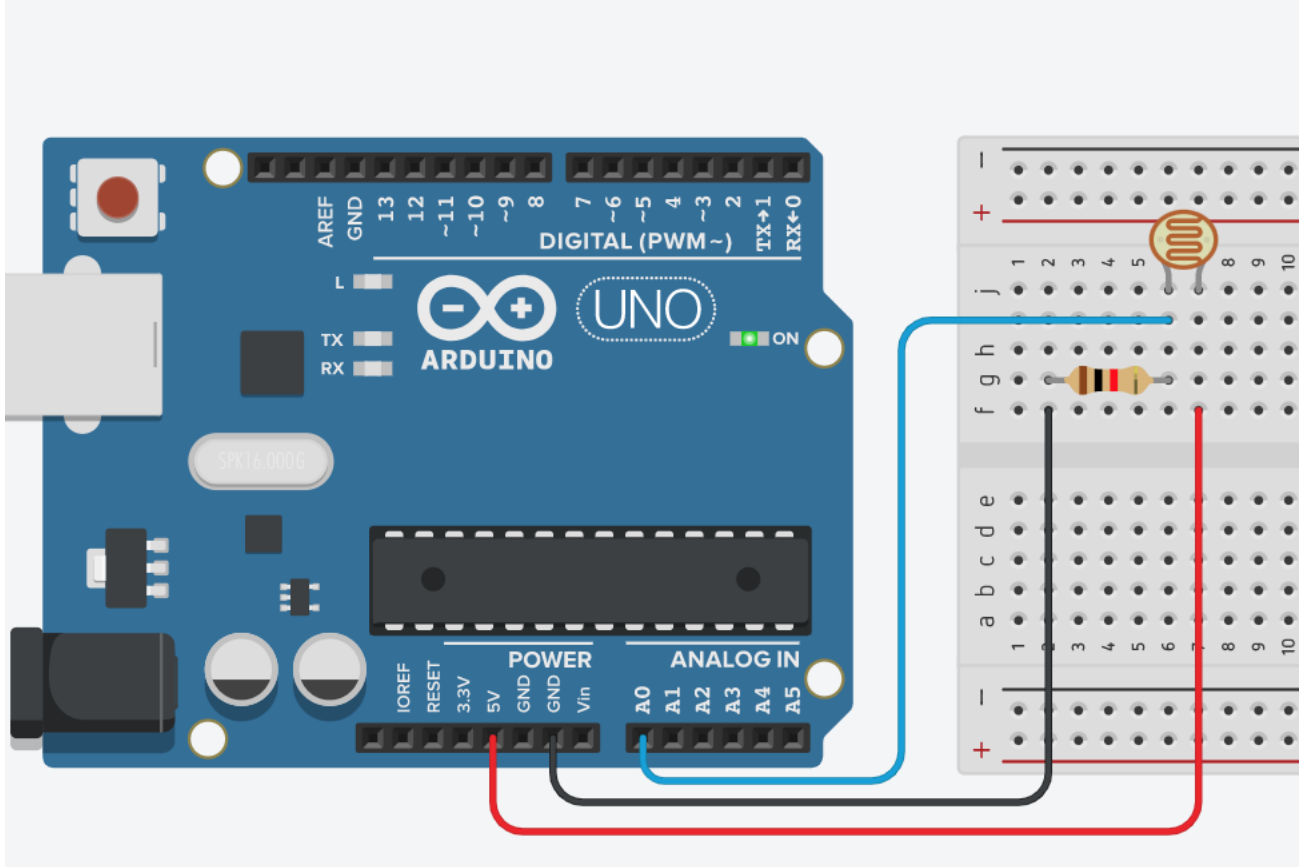


Photoresister	Arduino
VCC	5v
GND	GND
DO	7
AO	

```
int light_pin = 7;

void setup(){
  pinMode(light_pin, INPUT);
  Serial.begin(9600);
}

void loop(){
  int value = digitalRead(light_pin);
  Serial.println(value);
  delay(100);
}
```



Photoresister	Arduino
+	5v
-	GND
-	A0

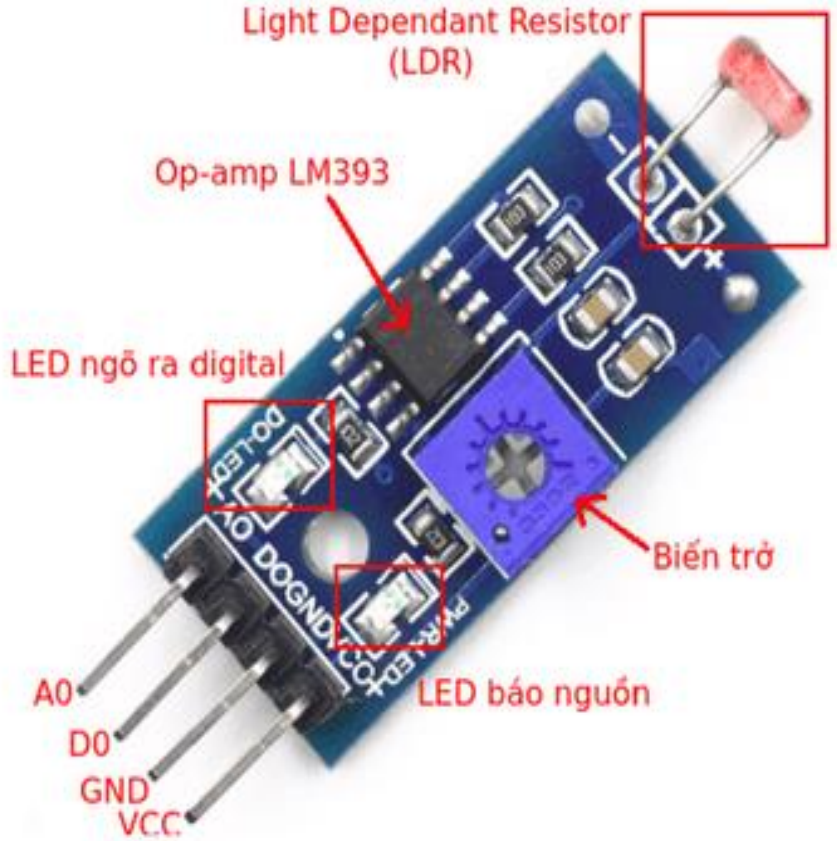
Resistance = 1000 Ω

```
int light_pin = A0;

void setup() {
  Serial.begin(9600);
  pinMode(light_pin, INPUT);
}

void loop() {
  Serial.println(analogRead(light_pin));
  delay(100);
}
```

Turn LED on/off according to light condition



Photocell	Arduino
VCC	5v
GND	GND
DO	
AO	A0

Reading analog signal from A0 pin

The bigger the value, the weaker the light

Fade LED in/out according to the light condition