



# Thinker1 Light Sensor

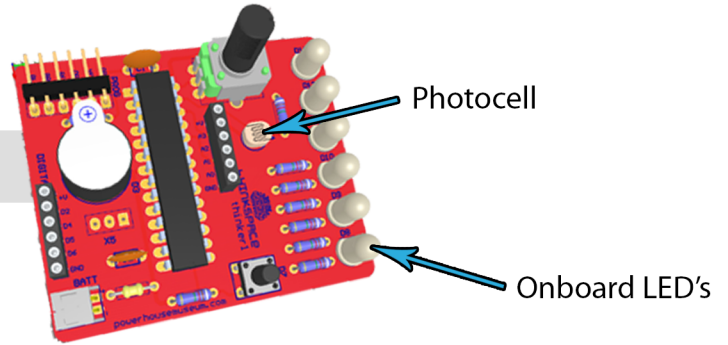
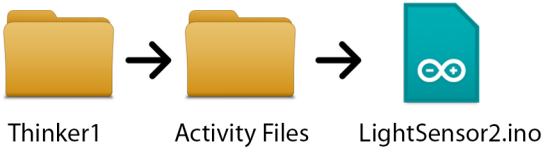
Activity Two

## What are we doing?

Create a night light using a photocell (light sensor) and an LED.

## What parts of the board will you be using?

## What files will we be using?



## Instructions

### Step 1

Open the file:  LightSensor2.ino

### Step 2

First we need to determine the range of the light sensor, this will always be different depending on the lighting conditions. Upload your program and then open the serial monitor by clicking the magnifying glass icon in the top right corner. *Make sure the baud value is set to 115200.*

Try to find the highest and lowest value that the light sensor will produce, you can retrieve the lowest value by covering the photocell with your finger.

### Step 3

Look for the comment `//map the values` and insert this code underneath;

```
value = map(value, 362, 845, 0, 2);
```

Make sure you adjust the numbers above to represent your own high and low values.

### Step 4

Look for the comment `//use conditional statement to turn LEDs on and off` and insert this code underneath;

```

if (value == 1)
{
  digitalWrite(led1Pin, HIGH);
}
else
{
  digitalWrite(led1Pin, LOW);
}
  
```

After uploading your program, the LED should switch on when the light sensor detects darkness.

