

Light/dark sensor using BJT

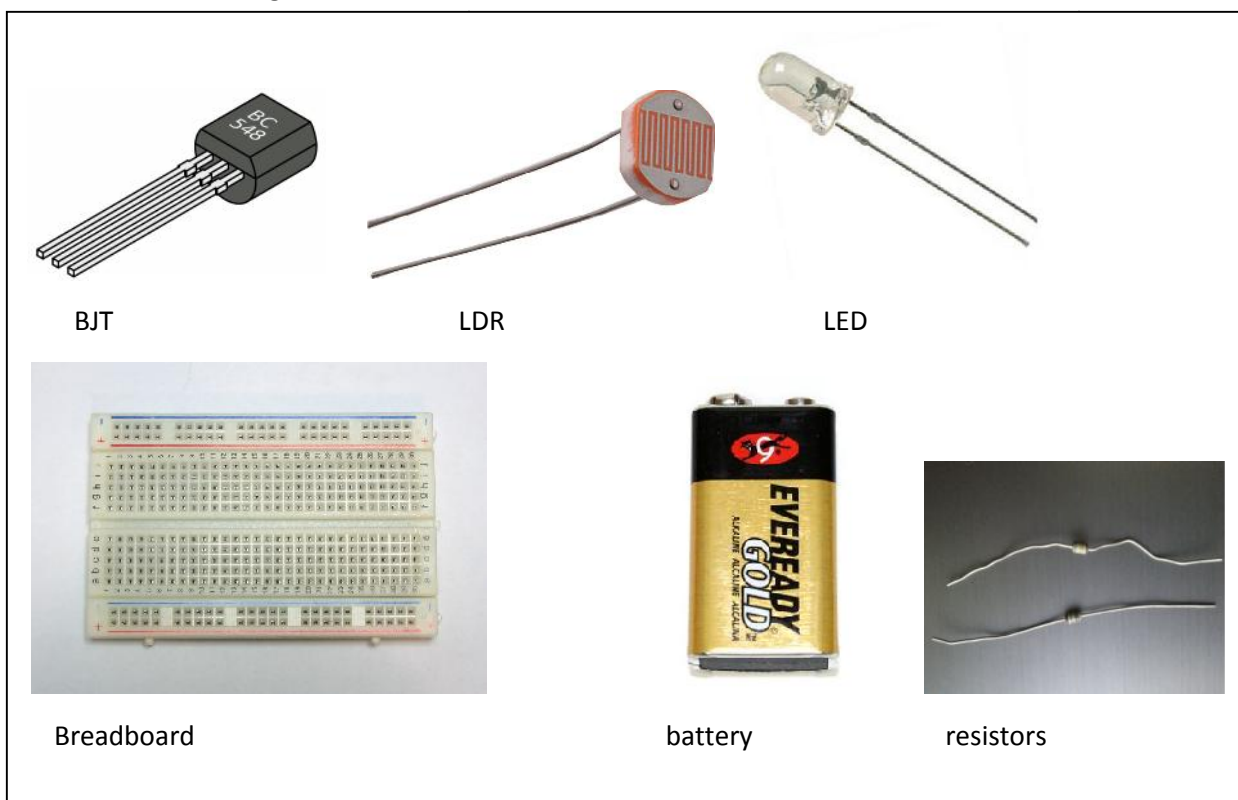
Introduction: led emits light when voltage is applied with correct polarity current through led can be controlled by light.now a days many electrical dvices are controlled using light.when light is present devices works else they will switch off.LDR(light depedent resistor)is used for such type of control.



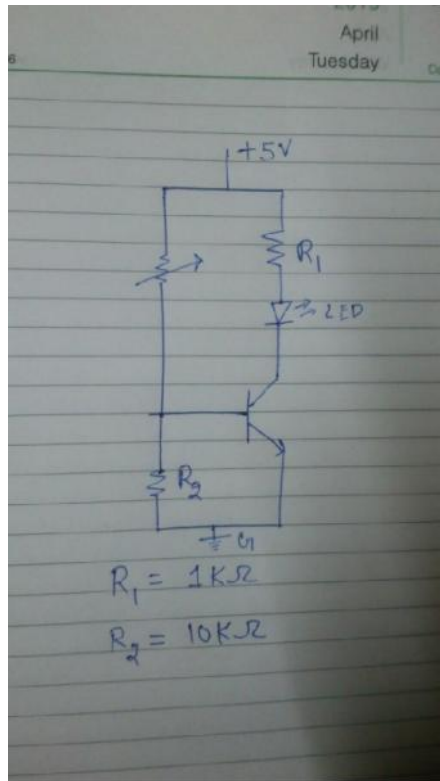
Step1:

Components:

1. LED
2. LDR
3. BJT(BC 548)
4. 5v battery
5. 1kilo ohm and 10 kilo ohm resistor
6. Connecting wires and breadboard



Step 2:
Connecting parts:



In the above image we can see the circuit we will construct. It's a simple electronic circuit and if you know how to do something on a breadboard, you should be able to do that dark sensor.

Step3:

connect everything:



Just do the circuit with components listed above this and all should be working fine

Remember, the LDR resistance depends on the light you have on the room or where you are constructing that. If you have light, the LDR resistance is low so, the LED should be turned off. When you obstruct the light that focus on the LDR, the LED should light up.

If for any reason your LED is always lighted up, try to change the transistor. Switch the Emitter and the Collector. If the problem persist, increase the resistor in the emitter region.

Step 4

Lets do:

Connect the power source you have to the breadboard. Remember the polarity for connecting red and black wire red wire is for positive supply and black is for ground or negative supply

Try your circuit and see what happens.

Happy doing 😊