Now, the LED will flash more frequently when there is a lot of light, less frequently when the room is dimmer.

Attach a 9 volt battery to the battery clip.

Insert a 100μF capacitor connecting the negative lead to the switch, as shown. Jumper the other lead to 555 pin 2.

The photoresistor is connected to pin 7 and 8.

Attach the momentary switch to ground at the top of the board.

Attach the battery clip.

Attach a 1K resistor across the IC, bridging pins 2 and 7. Trim and bend component leads, as you go, to keep everything compact.

Here is the schematic.

First put the 555 timer IC across the trench right in the middle of the board.

Connect the LED’s anode to the transistor’s emitter, and its cathode to the collector. Connect a 220(Ohm) resistor across the emitter and 555 pin 4.

Insert jumpers to power and ground.

Insert these jumpers as shown.

Place the NPN Transistor beneath the IC. Put a 1K resistor between pin 3 and the transistor base.

We’re going to build a simple photometer using a photoresistor and an LED. The more light falls on the photoresistor, the faster the LED flashes.

ATTACH A 1K RESISTOR ACROSS THE IC, BRIDGING/PINS 2 AND 7. TRIM AND BEND COMPONENT LEADS, AS YOU GO, TO KEEP EVERYTHING COMPACT.