**Lesson\_3\_Notes\_and\_Journal**

**2024.04.23**

* Look at Code
* Look at Circuit
* Draw Circuit
* Build Circuit
* Start Lesson

**Code**

* Glance at Code

import machine

import time

# Define LED Pin

LED\_PIN = 17

led = machine.Pin(LED\_PIN, machine.Pin.OUT)

# Define ADC Pin for LDR

ADC\_PIN = 26

adc = machine.ADC(machine.Pin(ADC\_PIN))

# Define a threshold for the LDR reading below which the LED should turn ON

LIGHT\_THRESHOLD = 50000 # This might need adjustment based on your LDR and environment

def night\_light():

while True:

light\_value = adc.read\_u16()

print(light\_value)

# If the reading is below the threshold, turn the LED on. Otherwise, turn it off.

if light\_value < LIGHT\_THRESHOLD:

led.value(1)

else:

led.value(0)

time.sleep(0.5) # Check every half second

night\_light()

**Circuit**

* Theirs

A circuit board with wires and a printed circuit board

Description automatically generated

A close up of a device

Description automatically generated

Red--2

Red--2

Black-0

Black--0

Silver ± 10%

220 Ω

A close up of a device

Description automatically generated

Brown --1

Black--0

Black--0

Red--00

Silver ± 10%

10,000 Ω 🡪 10K Ω

* Mine

A computer screen shot of a circuit board

Description automatically generated

* As built in video

A circuit board with wires

Description automatically generated

4/25/24 Rewired to video

Now on when bright – Numerical Value is 17xxx to 20xxx

And off when I cover it with my finger -- 59xxx to 62xxx

Room light on vs off doesn’t change values!

Reversed code from < to >