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CS-350

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Milestone 2

import RPi.GPIO as GPIO

import serial

import time

GPIO.setmode(GPIO.BCM)

GPIO.setwarnings(False)

LED\_PIN = 18

GPIO.setup(LED\_PIN, GPIO.OUT)

ser = serial.Serial("/dev/ttyS0", 9600, timeout=1)

ser.flush()

def handle\_command(command):

cmd = command.strip().upper()

if cmd == "ON":

GPIO.output(LED\_PIN, GPIO.HIGH)

print("LED turned ON")

elif cmd == "OFF":

GPIO.output(LED\_PIN, GPIO.LOW)

print("LED turned OFF")

elif cmd in ["EXIT", "QUIT"]:

print("Exiting program")

return False

else:

print(f"Unknown command: {cmd}")

return True

try:

print("Listening for commands over UART...")

running = True

while running:

if ser.in\_waiting > 0:

line = ser.readline().decode("utf-8").strip()

if line:

print(f"Received: {line}")

running = handle\_command(line)

except KeyboardInterrupt:

print("Interrupted by user.")

finally:

GPIO.cleanup()

print("GPIO cleaned up. Program ended.")