

Raspberry pi Code

```
import RPi.GPIO as GPIO
from bleak import BleakClient, BleakScanner
import asyncio

GPIO.setwarnings(False)
GPIO.setmode(GPIO.BOARD)
BLUE_LED_PIN = 13
RED_LED_PIN = 11
GPIO.setup(BLUE_LED_PIN, GPIO.OUT)
GPIO.setup(RED_LED_PIN, GPIO.OUT)
GPIO.output(BLUE_LED_PIN, GPIO.HIGH) #Blue LED on by default

BLE_ADDRESS = ""
THRESHOLD = 5000 # threshold for lux value (scaled by 100)

async def run(address):
    print("Scanning for devices...")
    devices = await BleakScanner.discover()
    for device in devices:
        print(f"Found device: {device.name}, {device.address}")

    async with BleakClient(address, timeout=60.0) as client:
        print("Connected to Parking Sensor")

        while True:
            try:
                value = await client.read_gatt_char("2A6E")
                lux_value = int.from_bytes(value, byteorder='little') / 100.0
                print(f"Light Sensor Value (lux): {lux_value}")

                if lux_value < (THRESHOLD / 100.0):
                    GPIO.output(RED_LED_PIN, GPIO.HIGH) #RED ON when the car is close to wall
                    GPIO.output(BLUE_LED_PIN, GPIO.LOW)
                else:
                    GPIO.output(RED_LED_PIN, GPIO.LOW)
                    GPIO.output(BLUE_LED_PIN, GPIO.HIGH) #Else BLUE ON

                await asyncio.sleep(2)
            except Exception as e:
                print(f"Error: {e}")
                await asyncio.sleep(5)
                continue

loop = asyncio.get_event_loop()
loop.run_until_complete(run(BLE_ADDRESS))
```