## **Step 1: Install socat**

```
sudo apt-get install -y socat
Step 2:
socat -d -d pty,raw,echo=0 pty,raw,echo=0
```

The output:

```
quandinh10@DESKTOP-88V13N4:/mnt/c/Users/dinhq/Desktop/IOT_LAB$ socat -d -
d pty,raw,echo=0 pty,raw,echo=0
2024/02/28 07:05:26 socat[654] N PTY is /dev/pts/3
2024/02/28 07:05:26 socat[654] N PTY is /dev/pts/4
2024/02/28 07:05:26 socat[654] N starting data transfer loop with FDs [5,
5] and [7,7]
```

**Step 3: Specify port to the Python gateway** 

```
def getPort():
    ports = serial.tools.list_ports.comports()
    N = len(ports)
    commPort = "None"
    for i in range(0, N):
        port = ports[i]
        strPort = str(port)
        if "USB Serial Device" in strPort:
            splitPort = strPort.split(" ")
            commPort = (splitPort[0])
# return commPort
# return "COM9"
    return "/dev/pts/4"
```

- Open another terminal in WSL, run file above to connect to port

## **The output:**

```
quandinh10@DESKTOP-88V13N4:/mnt/c/Users/dinhq/Desktop/IOT_LAB$
python3 main.py
Serial<id=0x7f2b7dfcebf0, open=True>(port='/dev/pts/4', baudra
te=115200, bytesize=8, parity='N', stopbits=1, timeout=None, x
onxoff=False, rtscts=False, dsrdtr=False)
```

## Step 4: To send message, open another terminal and write:

echo "Test" > /dev/pts/3

## The output:

quandinh10@DESKTOP-88V13N4:/mnt/c/Use
rs/dinhq/Desktop/IOT\_LAB\$ python3 mai
n.py
Serial<id=0x7f2b7dfcebf0, open=True>(
port='/dev/pts/4', baudrate=115200, b
ytesize=8, parity='N', stopbits=1, ti
meout=None, xonxoff=False, rtscts=Fal
se, dsrdtr=False)
Connected to Adafruit IO!
Connected ...
Subscribeb to led
Subscribeb to pipe
hihihaha

quandinh10@DESKTOP-88V13N4:/mnt/c/Users/dinhq/Desktop
/IOT\_LAB\$ echo "hihihaha" > /dev/pts/3
quandinh10@DESKTOP-88V13N4:/mnt/c/Users/dinhq/Desktop
/IOT\_LAB\$ echo "hihihaha" > /dev/pts/4
/IOT\_LAB\$ echo "hihihaha" > /dev/