IFN649

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Assignment1

Devices & Applications

- My laptop: MacBook M1
- Raspberry Pi 4
- Arduino UNO Board
- Bluetooth Module (HC-05)
- Temperature and Humidity Sensor (DHT-11)
- (Bluetooth Analyzer ,Windows)

C++: Communication with Sensor & Teensy board

- DHT-11
- Setup() activate the program: initialize variables, pin modes, start using libraries etc.
- Loop() is called repeatedly
- Delay() function is used to pause the execution

Python: Bluetooth

- import serial
- import time
- import string
- ser = serial.Serial("/dev/rfcomm0", 9600)
- ser.write(str.encode('Start\r\n'))
- while True:

    if ser.in_waiting > 0:

    rawserial = ser.readline()

    cookedserial = rawserial.decode('utf-8').strip('\r\n’)

    print(cookedserial)

MQTT on AWS

- MQTT
  - *Communication between machines*
  - *Transmission data within a IoT network efficiently*
- MQTT with Cloud Computing
  - *Remote developing, connection, and managing*
- AWS EC2
  - *Various of Virtual Machine (Instance)*