

### Communicating Nodes:

Wifi2 -> wifi3

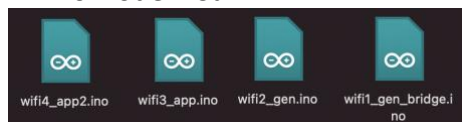
Wifi4 -> ble2

Wifi2 -> xbee1

Ble1 -> xbee2

### Files to flash

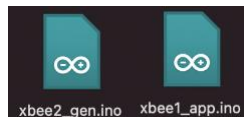
#### 1. To NodeMCu



#### 2. To ESP32



#### 3. To Xbee



- Libraries to install in rpi1 and rpi2: paho-mqtt
- Run a mosquito broker on rpi1 and install node-red
- **To configure wifi nodes**

- Change external wifi ssid and password for bridge node (wifi1)
    - Change channel in all the nodes. It should be same as the channel of external wifi.
  - **To connect ble devices**
    - Power both the nodes
    - Now reset ble server(node2) then reset ble client (node1)
    - They will automatically connect to each other
  - **To configure Xbee modules**
    - Use XCTU
    - Set the same PAN ID for both the nodes
    - Set xbee1 as coordinator
    - Set xbee2 as endnode
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- Connect Arduino 1(xbee1) to rpi2 via serial
  - Change the serial port of for the xbee1 in *file\_rpi2.py*
  - Run *file\_rpi2.py* in rpi2
  - Run *central\_rpi1.py* in central rpi