

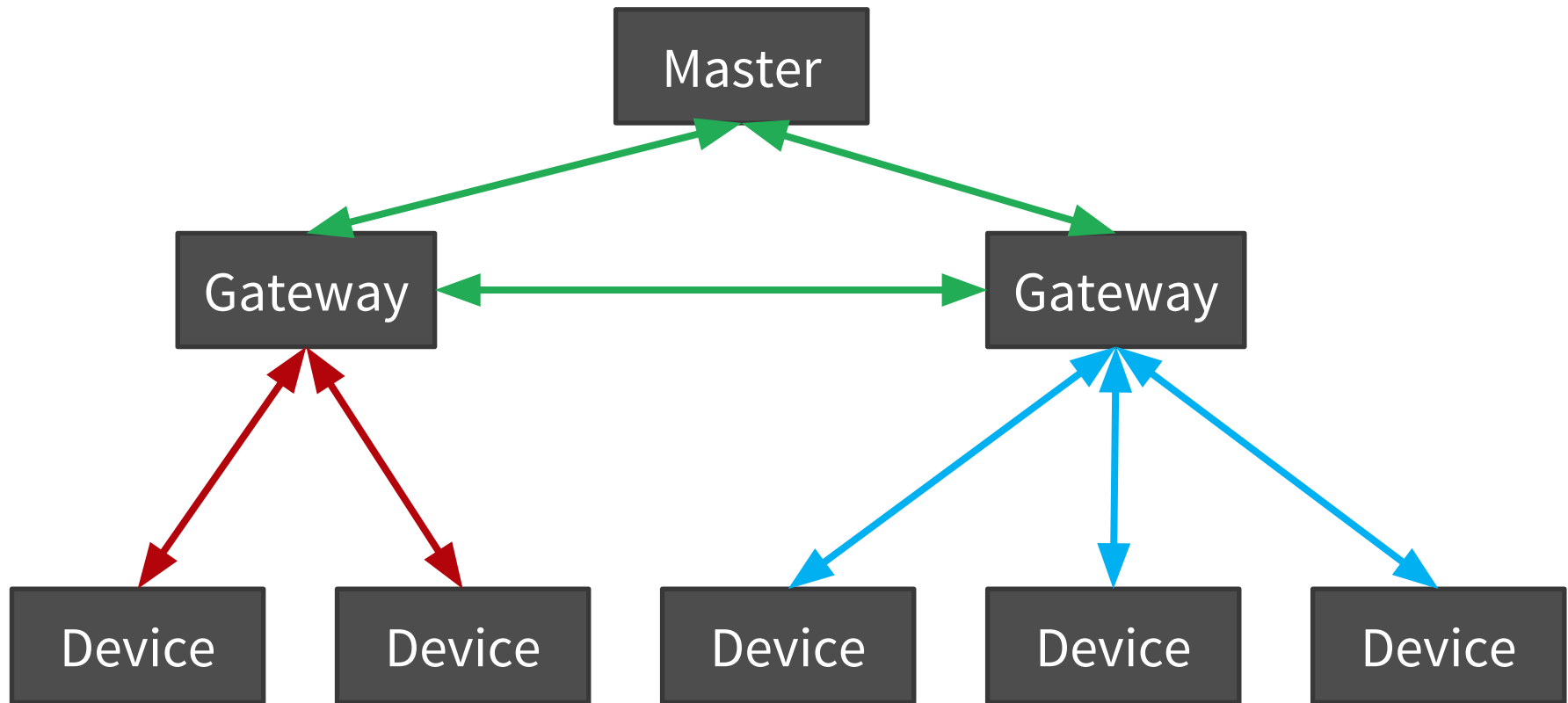


# Lab Week13

▸2016/12/06

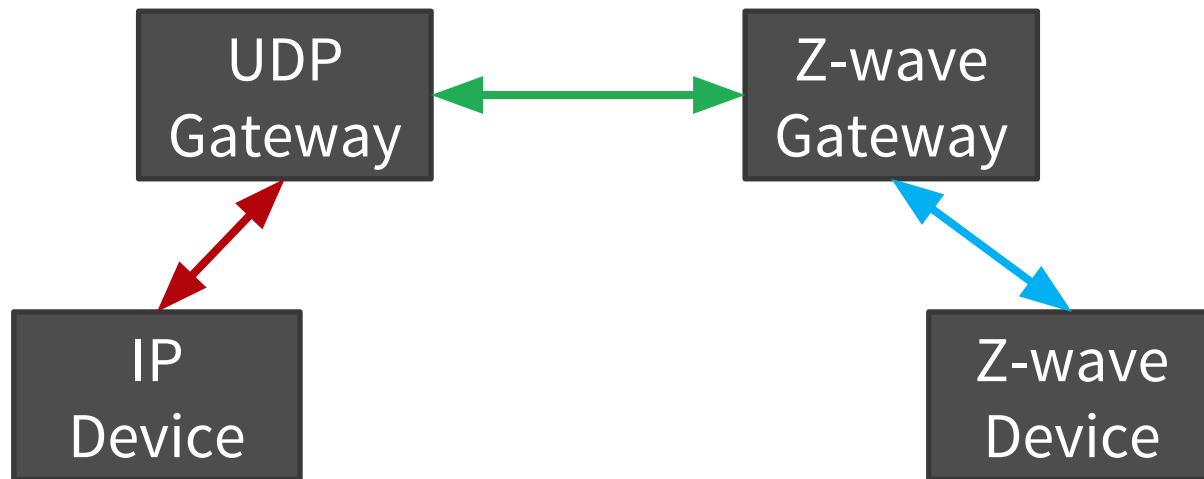
▸周君哲

# WuKong Topolog



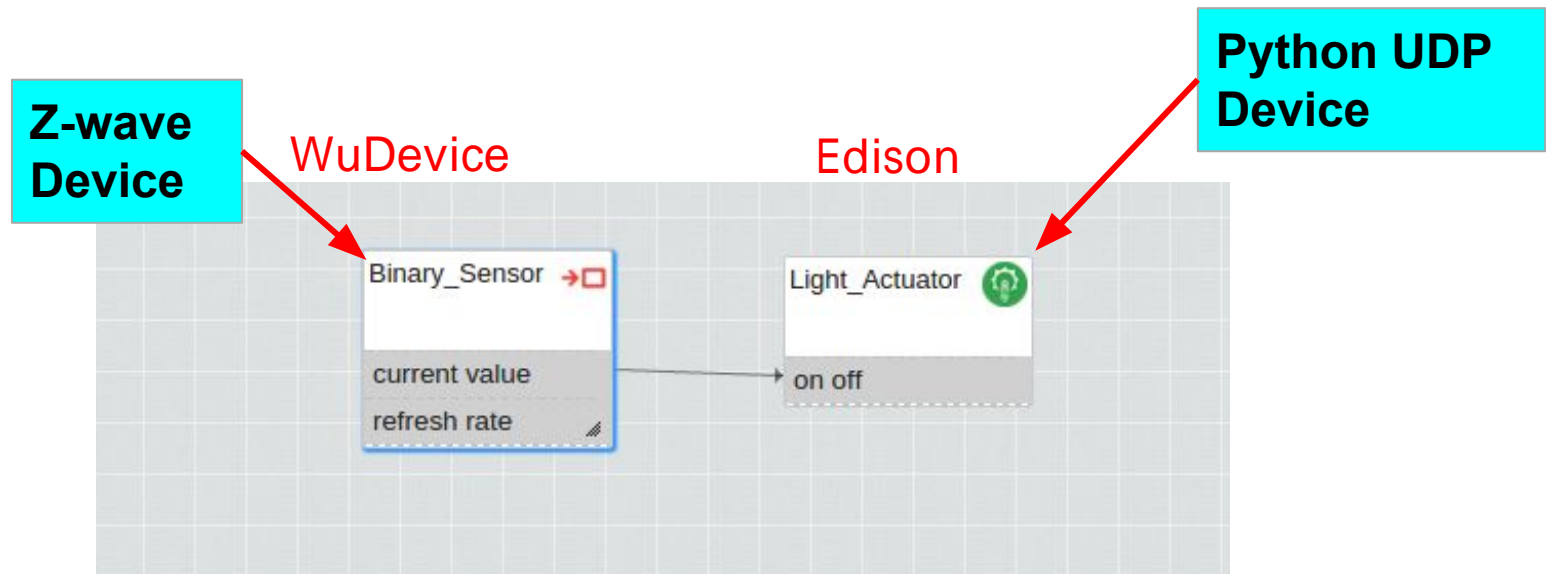
# Communicate Between Different Radio

The message between the devices in different gateway will be transmitted by their gateways.

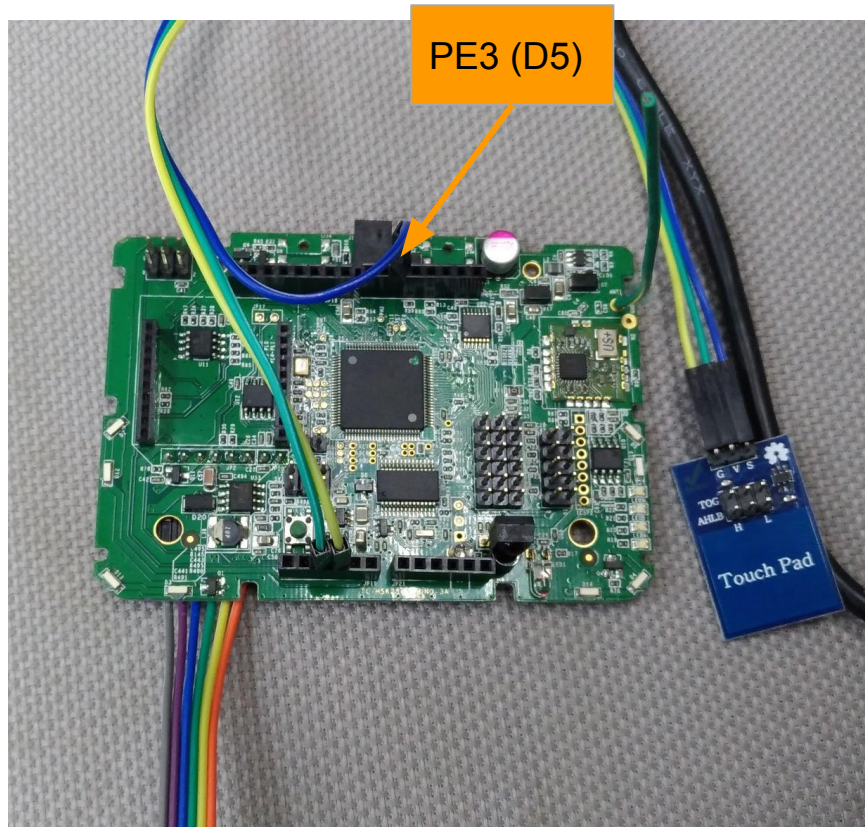


# Goal of This Week

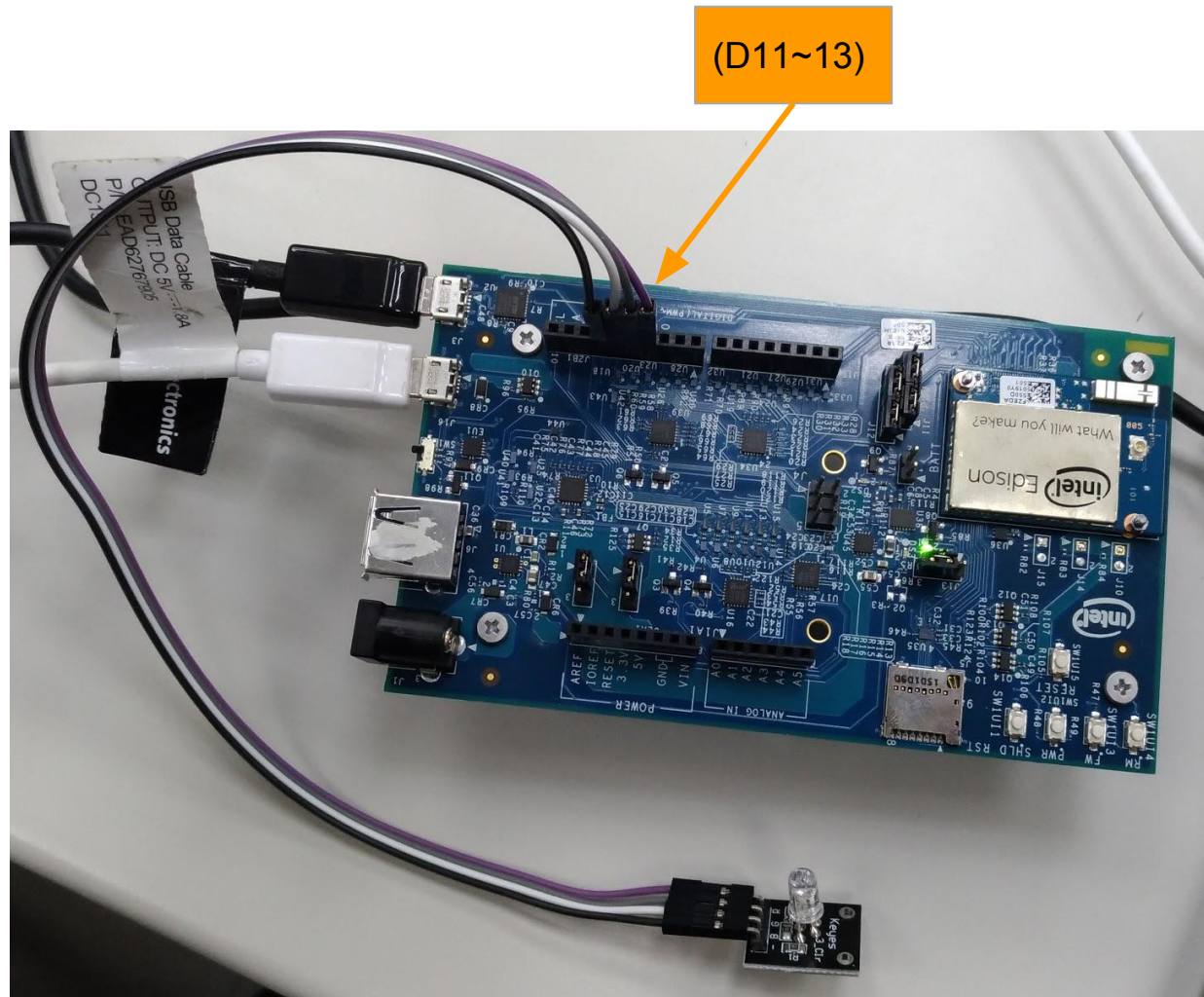
- ▶ Use two gateways with different radio let two devices with different radio can communicate with each other.



# Z-wave Device



# Edison



# Wuclasses for Z-wave Device

```
cd <wkroot>/src/config/wunode
```

```
vim enabled_wuclasses.xml
```

# Fill the wuclasses name we need.

```
<WuKong>
```

```
  <WuClass name="Binary_Sensor" appCanCreateInstances="false">
```

```
    <CreateInstance />
```

```
  </WuClass>
```

```
</WuKong>
```



# Upload Wukong Image

```
cd <wkroot>/src/config/wunode
```

```
gradle -b ../../build.gradle avrdude
```





# Run wukong master

```
cd <wkroot>/wukong/master  
python master_server.py
```



# Run UDP Gateway

```
cd <wkroot>/wukong/gateway  
python start_gateway.py
```



# Run Z-wave Gateway

```
cd <wkroot>/wukong/gateway_zwave
```

```
vim gtwconfig.py
```

因為ZWave dongle接在VM裡面，所以master IP這裡要填VM的IP

```
#MASTER_IP = '<master IP>'
```

這個要從9001改到9002

```
#SELF_TCP_SERVER_PORT = 9002
```

```
python start_gateway.py
```



# Modify the Light Actuator Code

Do the same thing on python code as we did last week. Every time the touch pad has been touch and release, make the light actuator switch to different light



# Add UDP Device

1. Press the “add node” button.
2. Ssh into Edison.
3. `cd <wkroot>/wukong/gateway/udpwkpf`
4. `python udpdevice_light_actuator.py <gateway ip> <self ip>:<port>`
5. Press the stop button



# Add Z-wave Device

1. Press the “add node” button.
2. Press the GND interrupt button on the back side of the Z-wave device to be discovered
3. Press the stop button after it shows “Node is found”
4. It should show a message “Add: done, Node id: 2”
5. Rediscovery and check the detail of Z-wave device



# Run the Result

<https://drive.google.com/open?id=0B7bbdsnbCVsvOVF6SnhhdlZQYjA>



# Hand in (Due: 12/16)

1. A video of your result.
2. Your code of light actuator wuclass.

