Plug in router to power,

Router WAN to UCL network

Router LAN to computers  
access router by going to <http://tplinkwifi.net/> or 192.168.0.1

192.168.0,.1 is the default gateway, can confirm with ‘ipconfig’ in command prompt

A screenshot of a computer

Description automatically generated

Presented with this

Password to enter the router is ‘Ryuji69’.

Can change the poassword under ‘adminstration’ in System Tool.

A screenshot of a computer

Description automatically generated

Click advanced at the top to see this

A screenshot of a computer

Description automatically generated

Important things to note:

A screenshot of a computer

Description automatically generatedwe use router mode

Go on wireless settings to see the wifi password and SSID A screenshot of a computer

Description automatically generated

Click network and make sure the static ip is set (to get you internet via ucl network, not necessary for private network without internet)

A screenshot of a computer

Description automatically generated

Important for when you add new ESP32’s to the network, and you want the assigned IP to be static.

Click DHCP under the network tab to see this

A screenshot of a computer

Description automatically generated

Use case: you have a new device you want to connect to the wifi: go find PickMe SSID, connect, password: 31642576

If possible, use the device to retrieve the IP address, otherwise go to the Status page and click ‘wireless clients’:

On the ESP32, my firmware tells you the IP when you begin communication:

Connecting to WiFi network: PickMe

Waiting for WIFI connection...

WiFi connected! IP address: 192.168.0.218 (example)

The best and preferred way to find the IP of your devices is to go into the status page and clicking wireless clients which will show your currently connected devices.

These devices have a dynamic IP assigned, but you want to make them static, so you need to go to Network->DHCP server.

You need to know these IPs so the server sends data to the right locations, and you want these Ips reserved so your server doesn’t constantly need refreshed IP.

To reserve IP addresses that were allocated through DHCP, go to DHCP server and look under address reservation, click ‘add’ A screenshot of a computer

Description automatically generated

Then click’ scan’

A screenshot of a computer

Description automatically generatedclick ‘choose’ on the item you want to reserve

A screenshot of a computer

Description automatically generatedcheck ‘enable this entry’

A screenshot of a computer

Description automatically generated

Click save

Now you can address your modules with their Ips in your C++ application and you can be sure the IP will remain static.

The console server is located here

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generatedudp listener client is a windows client (mimics the esp32)

A screenshot of a computer

Description automatically generatedthe esp32 firwmare is here