Heltec halow gateway + board setup and example

Official github repo: https://github.com/HelTecAutomation/ESP_HaLow

Updated July 2025

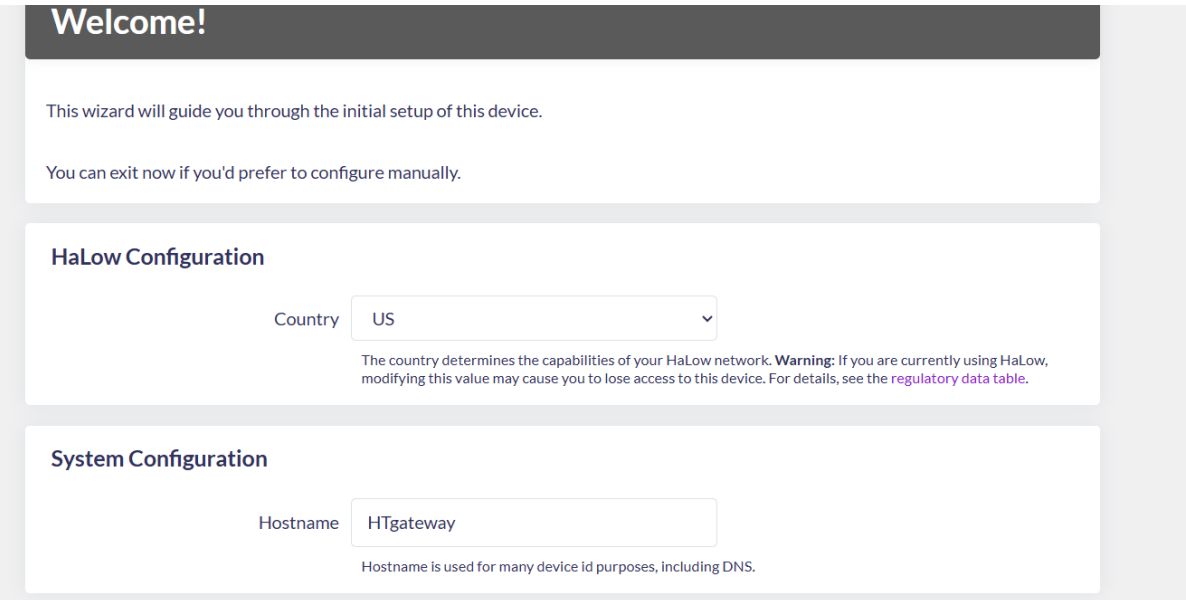
Halow Gateway setup

Image from Heltec HT-H7608 Datasheet.

1. **Power on the gateway and connect it to your laptop through the ethernet.**

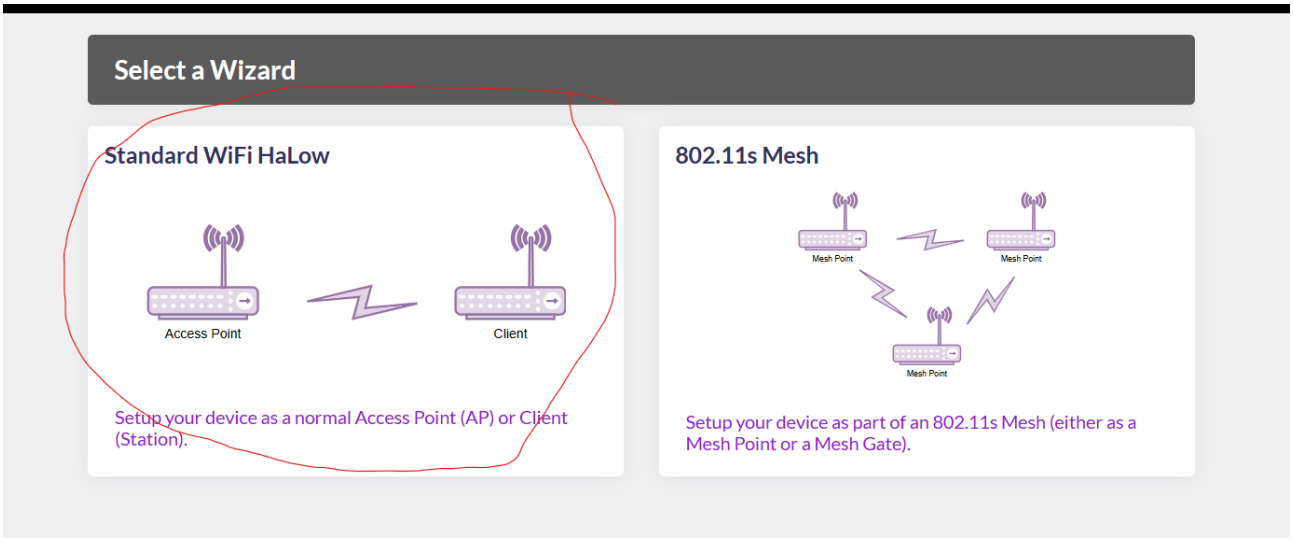
The red light once powered on means its booting up. The first time it booting up the light will turn yellow; configuration mode.

2. **Go to http://10.42.0.1/ (configuration side) and login User: Root, PASSWORD: heltec.org**

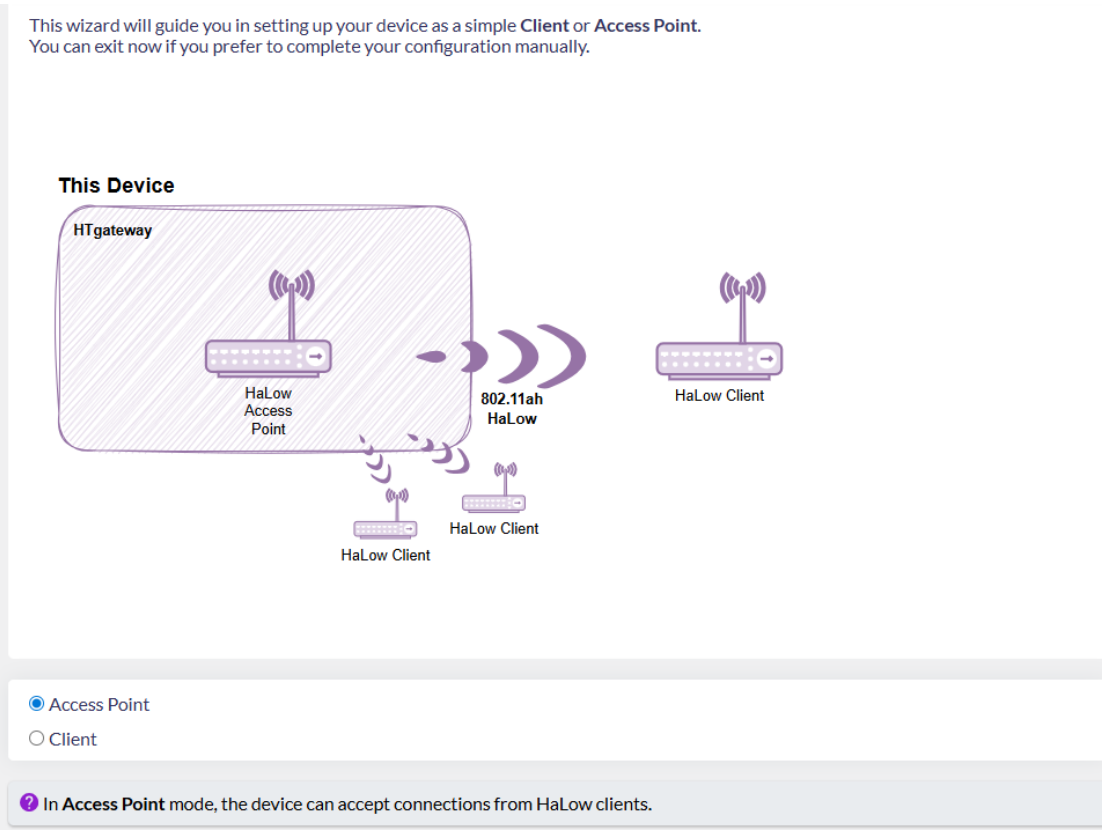


keep it on **Country: US** and change the hostname

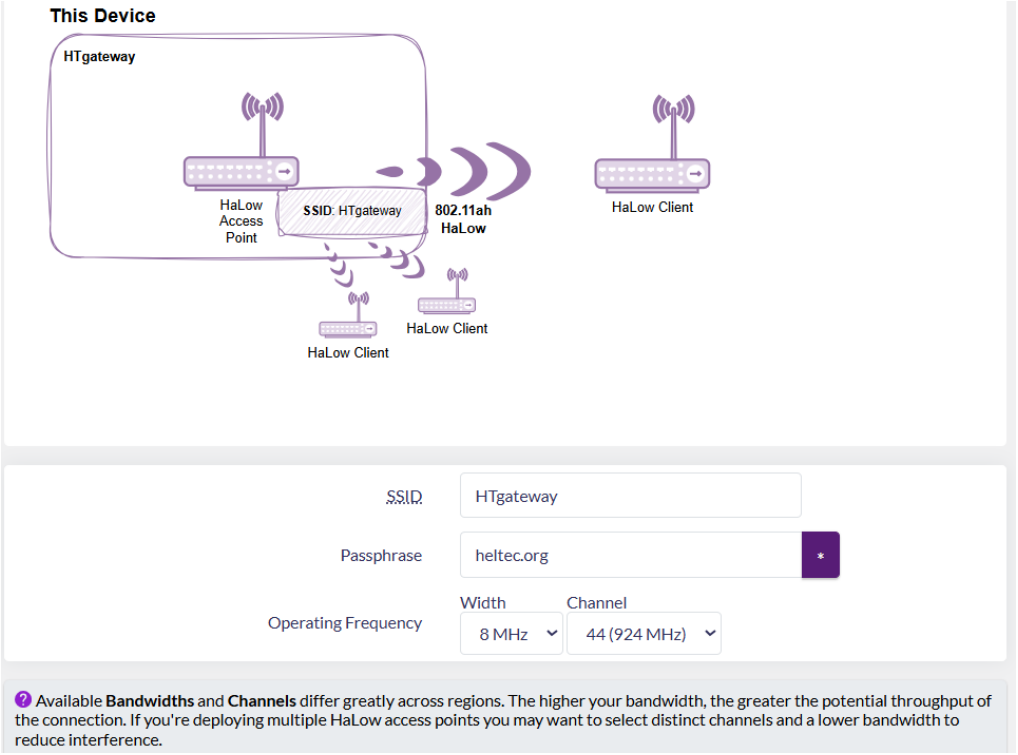
3. Select Standard WiFi HaLow



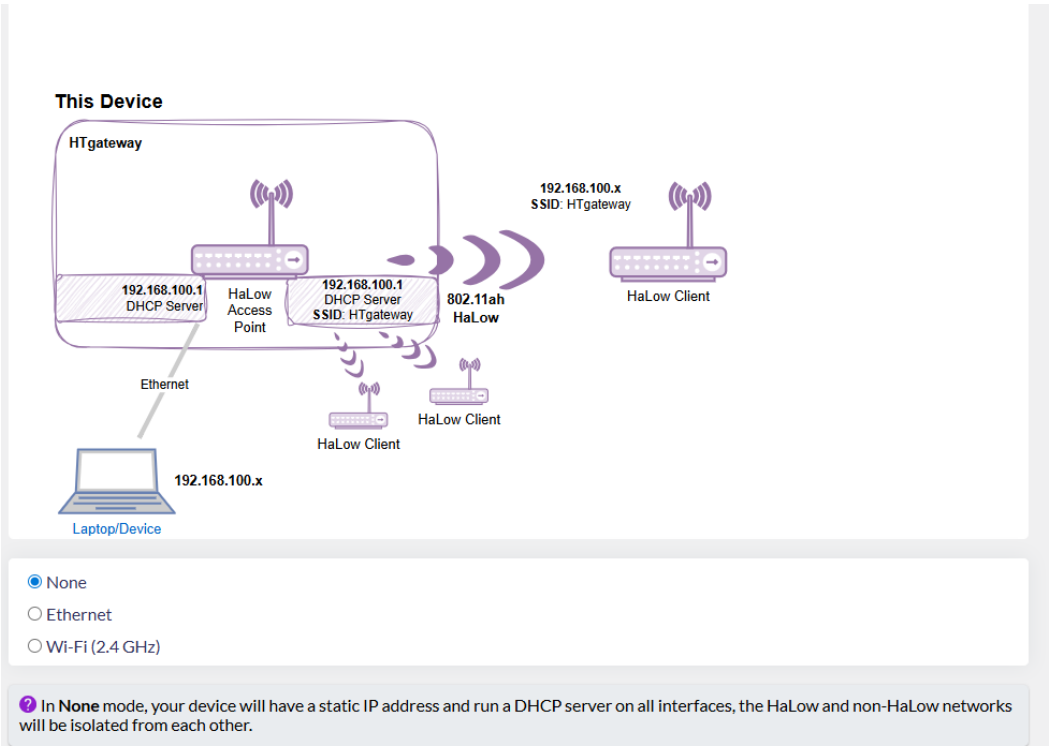
4. Choose Access Point



5. Configure the frequency, bandwidth, SSID and password

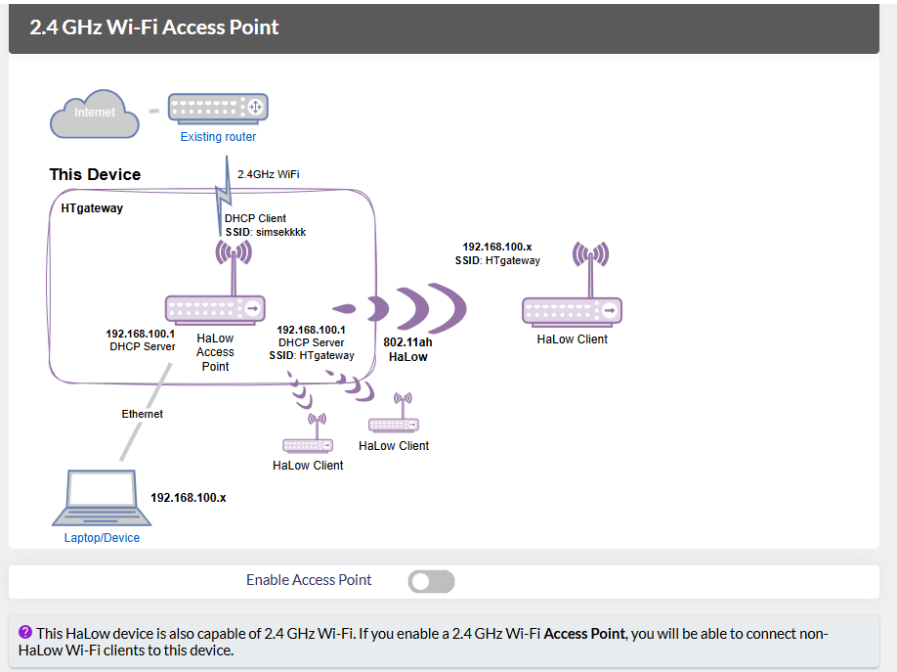


6. Choose Upstream network



For now, choose None, for only halow devices. If you are planning on working with non halow devices with the Halow devices, choose one of the other two.

7. **Skip this for now**



8. **Press Apply and now you are ready.**

If later on you want to change some settings, use a sim needle to hold on the button for 4 seconds, till the light turns yellow. What the different colours mean, can be seen here:

Color	Status	Description
Red	Always on/Blinking	System booting
Green	Blinking	Getting IP address（AP/Mesh-gateway，@RJ45） HaLow connecting(STA/Mesh-Point, @RJ45)
	Always on①	Getted IP address（AP/Mesh-gateway，@ RJ45） Halow connected(STA/Mesh-Point, @RJ45)
Blue	Blinking	Getting IP address（AP/Mesh-gateway，@USB） HaLow connecting(STA/Mesh-Point, @USB)

	Always on[2]	Getted IP address（AP/Mesh-gateway , @ USB） Halow connected(STA/Mesh-Point, @USB)
Yellow	Light up and release	Enter Configuration mode
White	Light up and release	Factory reset
Yellow-Green	Alternate flicker	Configuration mode
Yellow-Blue	Alternate flicker	Configuration mode
Purple	Blinking	Button pressed

Button press:

Status	Description
Single press	Switch network connection mode. The switch is green when connected to RJ45, blue when connected to USB
Long press 3 seconds	Yellow light is on, the device enters configuration mode
Long press 10 seconds	White light is on, factory reset

Images from Heltec HT-H7608 Datasheet.

More information about the gateway can be found here:
https://docs.heltec.org/en/wifi_halow/ht-h7608/index.html

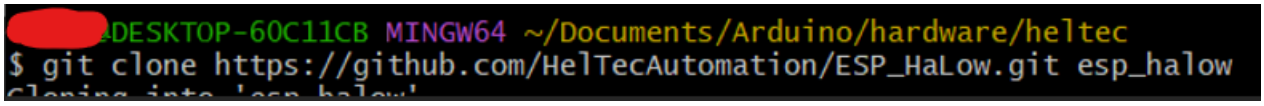
Heltec Halow board setup

Setup for windows

1. Install Arduino ide and git’

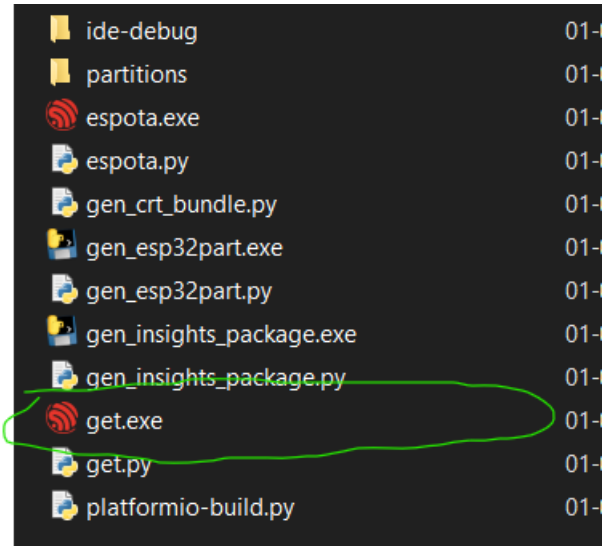
2. Create a folder called “hardware” inside “USER/Documents/Arduino” and create a folder “heltec” inside that

3. Open a git bash and point it to USER/Documents/Arduino/hardware/heltec and run “**git clone https://github.com/HelTecAutomation/ESP_HaLow.git esp_halow**”



4. Once installed now “**cd esp_halow”** and run “**git submodule update --init –recursive**”

5. Open up the esp_halow folder, go to **tools** and run “**get.exe**”



It will close once it’s done.

6. Open up Arduino ide, choose **HT-HC33** in Tools -> Board

7. Install “basicparameters” from https://github.com/Simssek210/T-halowtest
   And change the SSID and password to the gateway has and upload the sketch.
   (If you are uploading the first time, it might need to hold the USER button while uploading)

Heltec has a few of ready-made sketches for WiFi Halow that can be found in

File -> Examples -> HT-HC33 -> WiFi Halow

More information about the board and Halow modem can be found in

https://github.com/Simssek210/T-halowtest or on https://resource.heltec.cn/download/HT-HC33 and https://docs.heltec.org/en/wifi_halow/ht-hc32/index.html