

# Setting up WiFi connectivity

WiFi connectivity from the Technion

- Create a hotspot on mobile phone, setting up the compatibility frequency 2.4 GHz

WiFi connectivity via laptop, dual connectivity

- Dual connectivity – the laptop is connected to WiFi and additionally serves as a hotspot.
- Note that most of the WiFi devices support one mode at a time. In other words, if the WiFi adapter is currently connected to a network, it might not be able to create the hotspot.
- Workaround for Linux using Terminal:
  - `sudo add-apt-repository ppa:lakindukash/lwh`
  - `sudo apt update`
  - `sudo apt upgrade`
  - `sudo apt install linux-wifi-hotspot`
  - `reboot`
  - Run the software (WiFi Hotspot) and configure a hotspot. In advanced settings set to 2.4 GHz. Press “Create hotspot” for start.
- Configure secrets.h with the SSID and PASSWORD used for WiFi, upload the code.

```
Init WiFi...
Connecting to DCIOT..
WiFi connected!
Local IP address: 192.168.12.46

Init local DNS...
Browse either http://audio-recorder.local or via IP address
* The .local extension is essential when using the host-name.
```

- Go back to the Hotspot app and check the connections, press on Refresh button:

The screenshot shows the 'Wi Hotspot' application interface. At the top, there's a header with a menu icon and the title 'Wi Hotspot'. Below this, there are input fields for 'SSID' (containing 'DCIOT') and 'Password' (with an 'Open' checkbox). There are also dropdown menus for 'Wifi interface' (showing 'wlp0s20f3') and 'Internet interface'. A section titled 'Advanced' is expanded, showing 'Connected devices'. This section contains a table with columns 'Number', 'Hostname', and 'IP'. One device is listed with Number '1', Hostname 'esp32-DE9668', and IP '192.168.12.46'. Below the table is a 'Refresh' button. At the bottom of the app, there are buttons for 'About' and 'Open QR'.

Number	Hostname	IP
1	esp32-DE9668	192.168.12.46