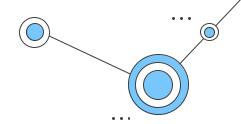
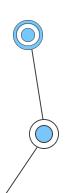


Why Online Labs?



The Reason is as follows:

- 1. Easy to use and handles the essential material used in our sessions.
- 2. Gives the option whether you wanted to have an online simulation or on a practical hardware lab.
- 3. Flexible and Portable tool.
- 4. Integrated with FOTA to be used to test any new feature.





Graphical User Interface

By using Python and tkinter

In Depth

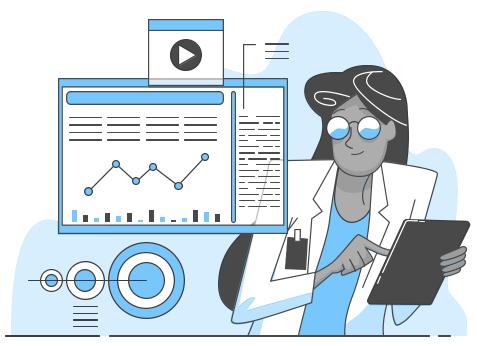


Hosting Site
By using FreeWHA

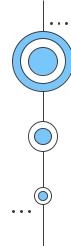


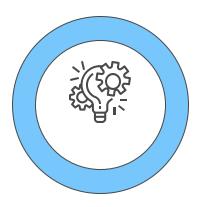
Implementation of FOTA

By using ESP32 with our microcontroller "STM32F401CC"



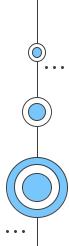






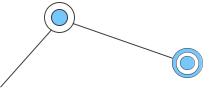
GUI

To provide a user-friendly interface for initiating firmware updates, we have developed a graphical user interface (GUI) using Python and Tkinter. Tkinter is a widely-used GUI toolkit for Python that allows us to create interactive applications. The GUI provides a seamless experience for users to initiate and monitor firmware updates.



Desktop Software







Understanding the Problem





Online Labs



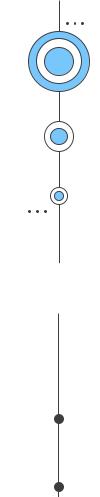
Hardware Labs



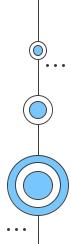
Make your own

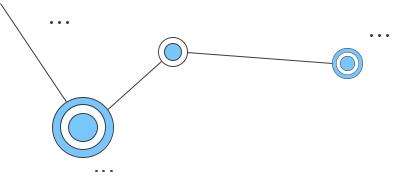


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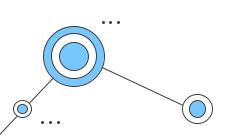
O2Hosting Website





A platform that allows you to effortlessly manage firmware updates for your IoT devices remotely.

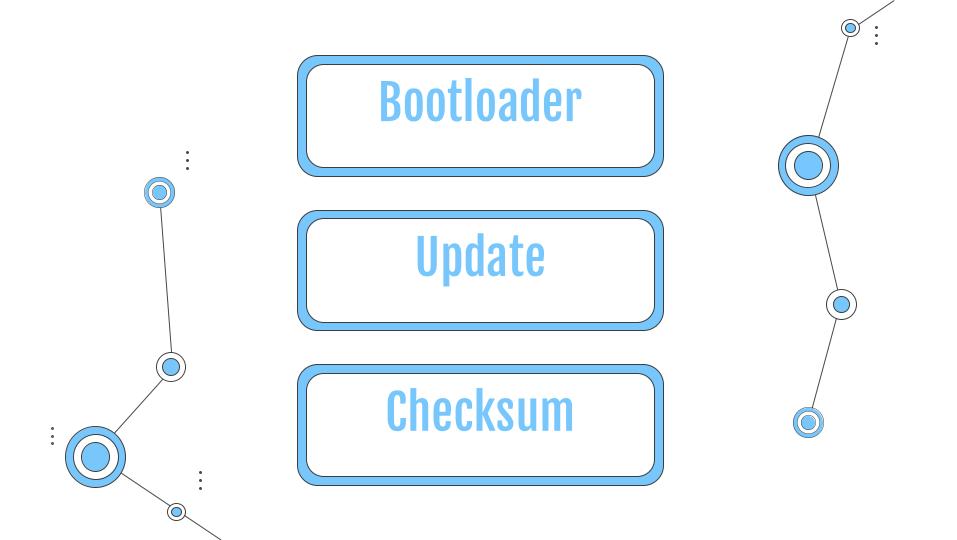
Online Labs Application (eu5.org)





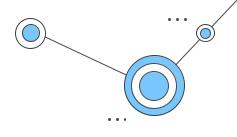










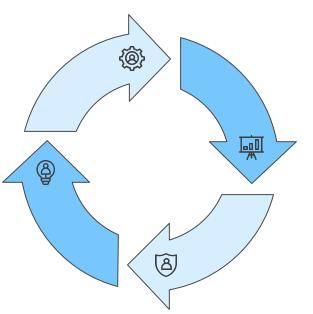


GUI

To choose your update

FOTA

To flash the new update



Update process

By using python converter

Hosting Website

To host the update

