

## Project Configurability

- Code modularity, with each subsystem being separated into a separate file.
- NRF52840, M5Core and Thingy:52 can all be reprogrammed in C/C++. The GUI is written in Python. Thus, everything is written in a popular programming language, making it easy for further development.
- All Python libraries used can be installed using pip: pyserial, Tensorflow, matplotlib, keyboard, numpy, customtkinter, PIL, mqtt, pandas

## Field Deploying Plan

To deploy the system:

- Flash Thingy:52 with code under mycode/apps/ibeacon
- Flash NRF52840 with code under mycode/apps/central\_hr
- Flash M5Core2 with code in the home folder name m5core2.ino
- To open the GUI, run main.py

The plan/next steps:

- Make the ML model more generalized by collecting more data
- Thinking of turning this into a Fitbit with a cloud service
- Thingy:52 and M5Core combine into the Fitbit. The PC GUI access the info via the cloud server.

To help non-project members understand the code:

- Code documentations: block diagram, message protocol diagrams. It is under the documentations folder on GitHub.
- The code has useful comments.