WiFi Indoor Positioning System

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Training Pprocess

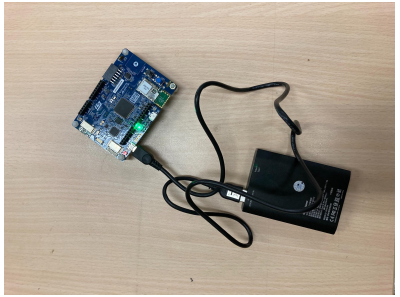
1. STM32 (Raspberry Pi) reading WiFi data (MAC address, RSSI)
2. Send the data to server
3. Label the data manually
4. Select the most k frequent MAC address and the corresponding RSSI to be the feature
5. Train the model (DNN for now)

Testing Process

1. STM32 reading WiFi data (MAC address, RSSI)
2. Send the data to server
3. Feed the data into the model and output the result
4. Visualization the result

Testing Settings

- MD402
- Classroom size: 1200cmx720cm
- Split into 10x6 grids
- Grid size: 120cmx120cm



Testing Result

- Mean L2-distance with ground truth: 1m
- STM32 WiFi reading WiFi slowly (8 sec / data)

Visualization

https://youtu.be/NUC1zSgwCPY