Setting up development environment

Get the Flutter SDK

1. Download the flutter_windows_1.22.3-stable.zip installer package to get the latest stable version of the Flutter SDK:
2. Extract the zip file and place the contained flutter in the desired installation location for the Flutter SDK.
3. You can now execute the Flutter commands in the Flutter console.

Update the path

To run Flutter commands in the standard Windows console, follow these steps to add Flutter to the PATH environment variable:

1. In the home search bar, enter "environmental" and select Edit environmental variable for your account.
2. Path of user variables:
   - If there is an entry, add the full path to flutter \ bin using; As a separator for existing values.
   - If the entry does not exist, create a new user variable named Path with a full path to flutter \ bin as the value.

Android Studio setup

1. Download and install Android Studio.
2. Start Android Studio,
   - Go through the ‘Android Studio Setup Wizard’. It installs the latest Android SDK, Android SDK Command-line Tools, and Android SDK Build-Tools.

Install the Flutter and Dart plugins on Android platform

1) After launching Android Studio, open the plugin's preferences (Configure -> Plugins).
2) Select the Flutter plugin and click Install.
3) When prompted to install the Dart plugin, click Yes.
4) When prompted, click Restart.

To prepare to run and test the Flutter app, you must need an Android device or an Android emulator.

1) Set up the Android emulator

1. Enable VM acceleration for the machine.
2. Launch Android Studio, click the AVD Manager icon and select Create Virtual Device
3. Select a device definition and select Next.
4. Select one or more system images to emulate the Android version.
5. Select Hardware - GLES 2.0 to enable hardware acceleration.
6. Make sure the AVD settings are correct and select Finish.
7. In Android Virtual Device Manager, click Run on the toolbar. Then the emulator starts up.

2) Set up Android device

1. Enable device development options and USB debugging.
2. Connect the phone to the computer using a USB cable.

Install the Arduino Ide and build the Arduino system.

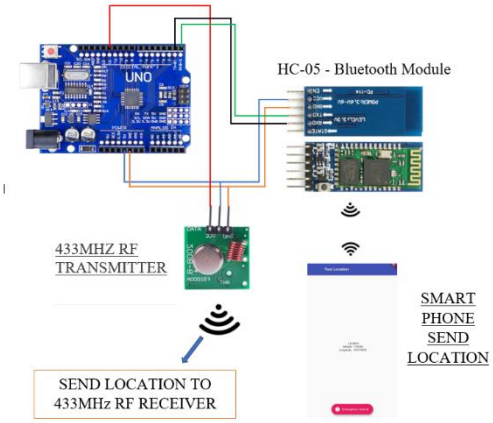

Fig 01: Transmitter

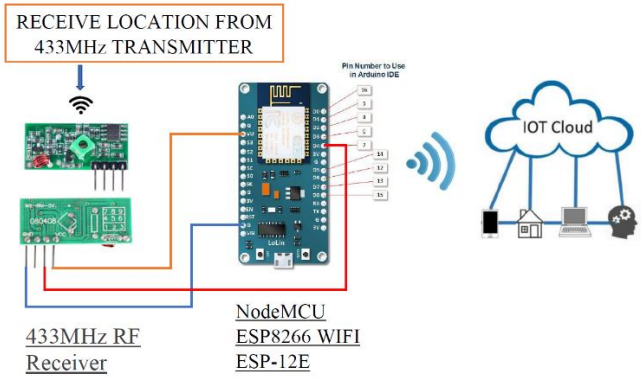

Fig 02: Receiver