

1. Firebase Setup

- ☐ Create Firebase project (Official Website >> "Go to Console" >> Sign in).
- ☐ Initialize firestore and create a collection and a document (e.g. `data/sensor1`). Where `data` is the collection name and `sensor1` is the document name.
- ☐ Wait until the Web API key is generated in Project Setting.
- ☐ Get the latest version of PICO program [here](#).
- ☐ Update the following constants in the program:

```
# firebase information
FIREBASE_API_KEY = "..."
FIREBASE_PROJECT_ID = "..."
FIREBASE_DOCUMENT_PATH = "data/sensor1"
```

- ☐ Upload the modified program to PICO and run.
- ☐ Go to Firestore Database and see if the document is updated successfully (interval ~4 seconds).

2. Flutter SDK Setup

- ☐ SDK Installation:
 - for [Mac](#)
 - for [Windows 10](#)
 - **OR** official manual ([Mac/Win](#))
- ☐ Install [VS Code](#).
- ☐ VS Code extensions install:
 - Flutter
 - Dart (Usually installed along with Flutter extension)

3. App Setup

- ☐ Download the template program [here](#).
- ☐ Unzip the download file.
- ☐ Open the unzipped folder with VS Code.
- ☐ **CMD + J** to open the terminal.

- ☐ Run the following commands

```
flutter pub get
flutter pub run build_runner build --delete-conflicting-outputs
```

- ☐ Download [npm](#).
- ☐ Run the following commands

```
npm install -g firebase-tools
firebase login
```

- ☐ Run the following commands

```
dart pub global activate flutterfire_cli
```

- ☐ Run the following commands

```
firebase init
```

- ☐ Select the platform you want to use (e.g. Android/iOS/MacOS/Web) and press **Enter** to confirm.
- ☐ Use space to select **Firestore** and **Hosting: Configure files for Firebase Hosting** and press **Enter** to confirm.
- ☐ Select **Use an existing project** and press **Enter** to confirm.
- ☐ Use arrow keys to select the project you created in Firebase console and press **Enter** to confirm.
- ☐ Wait until the initialization is done.
- ☐ When asked **What do you want to use as your public directory?**, type **build/web** and press **Enter** to confirm.
- ☐ When asked **Configure as a single-page app (rewrite all urls to /index.html)?**, type **Y** and press **Enter** to confirm.
- ☐ When asked **File build/web/index.html already exists. Overwrite?**, type **Y** and press **Enter** to confirm.
- ☐ Try run the Flutter app.

4. Deploy the App

- ☐ Run the following commands

```
flutter build web  
firebase deploy
```

- ☐ Wait until the deployment is done.
- ☐ Copy the URL of the deployed app and paste it in the browser.
- ☐ You should see the app running.