

Automatic Hand Sanitizing System Setup Guide

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Build Instructions

This section outlines the process of installing the tools necessary for interacting with the product's microcontroller using Code Composer Studio (CCS). This section also details how to access our project from the GitHub repository and pull it into CCS.

Install CCS

1. Download CCS from <https://www.ti.com/tool/download/CCSTUDIO>
2. Proceed through the installer, when asked to select between full and custom installation, choose custom and click next
3. On 'Select Components' Select 'SimpleLink MSP432 low power + performance MCUs'
4. On the next page, select only 'Spectrum Digital Debug Probes and Boards'
5. Proceed until program is installed

In CCS

1. Go to File > Import
2. Choose Code Composer Studio > CCS Projects
3. Clone/Download the repository and select Hardware > Hand-Sanitizing-System as the search directory
4. Select Hand-Sanitizing-System MSP432 and Finish
5. Hit the hammer icon on the top left bar to build the project (if it is not compiling, ensure that (Active - Debug) appears next to the project name on the project explorer, you can do this by clicking on the project, which 'selects' it as the build target)

Running the Automatic Hand Cleaning System App (Webapp) on a Local Machine

This section outlines the process of running the web application on a local machine. The web application is built upon the MERN stack, so access to NodeJS, React, Express, and Mongo are required.

1. Make sure NodeJS is installed <https://nodejs.org/en/>
2. Download the repository from GitHub using the command: `git clone https://github.com/davidhutchins/Automatic-Sanitizing-System.git`
3. Install dependencies using: `npm i`
4. Open the command prompt and navigate to the folder containing the server.js file:
`cd Automatic-Sanitizing-System/Server/sanitizingsystem/src/server`
5. Enter the command `node server.js` to connect to the MongoDB database
6. In another terminal, navigate to this folder: `cd Automatic-Sanitizing-System/Server/sanitizingsystem/src` and run the application with `npm start`
7. In another terminal, navigate to this folder: `cd Automatic-Sanitizing-System/Server/sanitizingsystem` and enter the command `node exserver.js` to connect to the Express backend