

# CMSC 437 PATIENT MONITOR MANUAL

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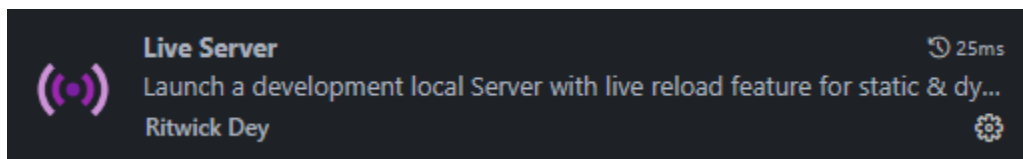
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**INTRODUCTION:**

This user manual is for a prototype patient monitoring GUI. It displays the patient's vitals (heart rate, temperature, blood pressure, etc.). It also displays 4 vital graphs, 2 ECG (Electrocardiogram) graphs, a pulse oxygen saturation graph (PLETH), and a respiration rate graph (CAPNO). The top of the screen contains a header that displays a clock, network connection status, and the current user's name. Next to the user name are 2 buttons labeled “Check Patient Details” and “Change Patient”. Check Patient Details displays all the user information (Name, Age, prescribed drugs, and Incident) with an option to edit and save new user information. Change Patient allows the user of the monitor to create a new patient profile and change the currently active patient.

**INITIAL SETUP:**

The initial setup for the patient monitor prototype is simple, all frameworks that are used (React and Bootstrap) are included by CDN links in index.html. This allows you to run the prototype with minimal dependency installs. To run the prototype through Visual Studio Code, install the Live Server extension through the extensions side menu. Following the installation of live server, simply select the index.html in the file menu and click the go live button in the bottom right corner to launch the GUI.



**Figure 1: Live Server Extension Listing**

## POWERING ON THE DEVICE:

Upon launching the live server page, the user will be presented with the home monitoring page, this page will have some active components such as the header containing network status, the clock, and the current patient name (Defaulted to Joe Schmo). To activate all the monitoring functions, the user will need to click/tap on the power button in the bottom left corner. Following the button being pressed, all monitoring functions (Vitals and Vital Graphs) will activate.

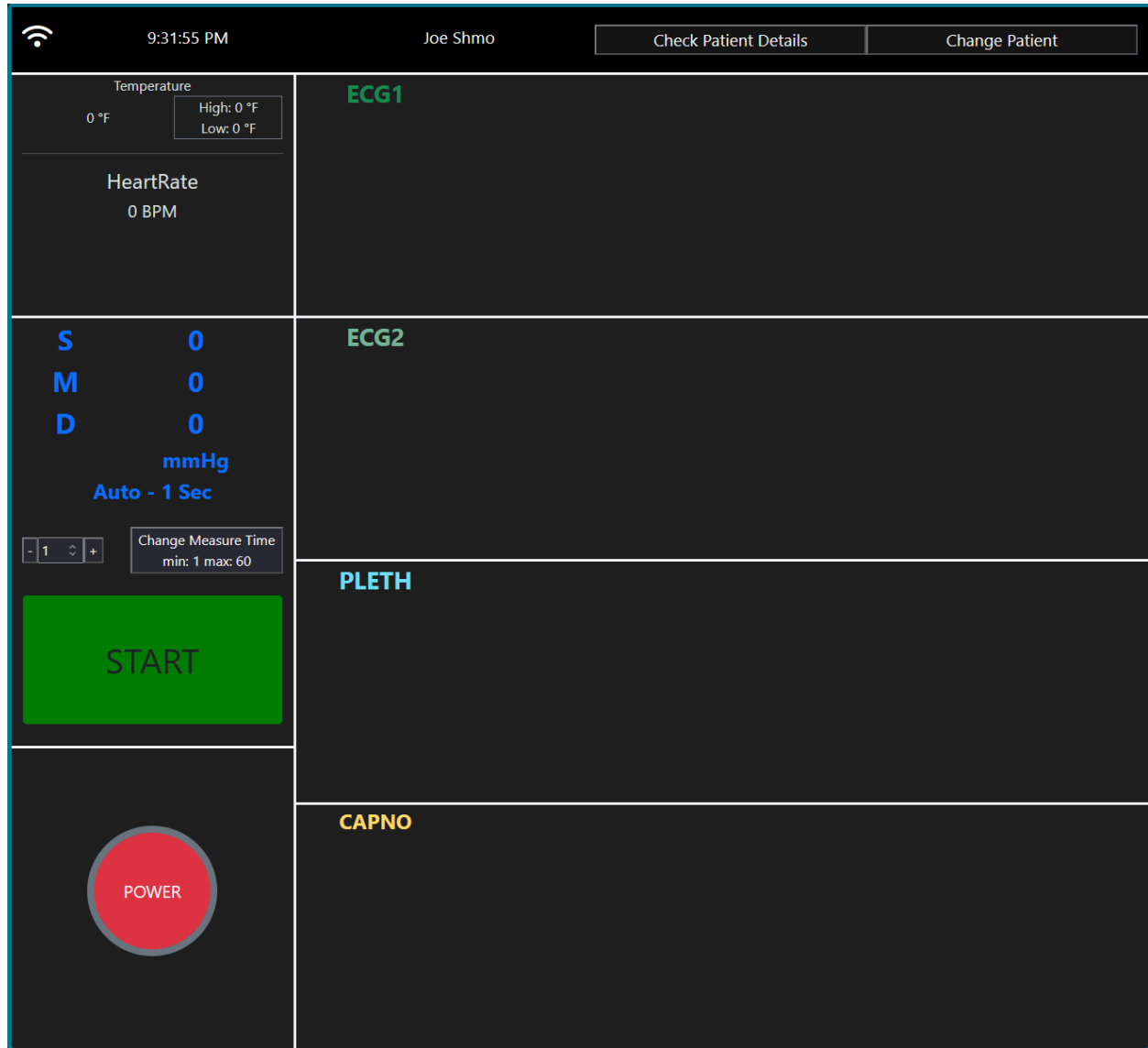


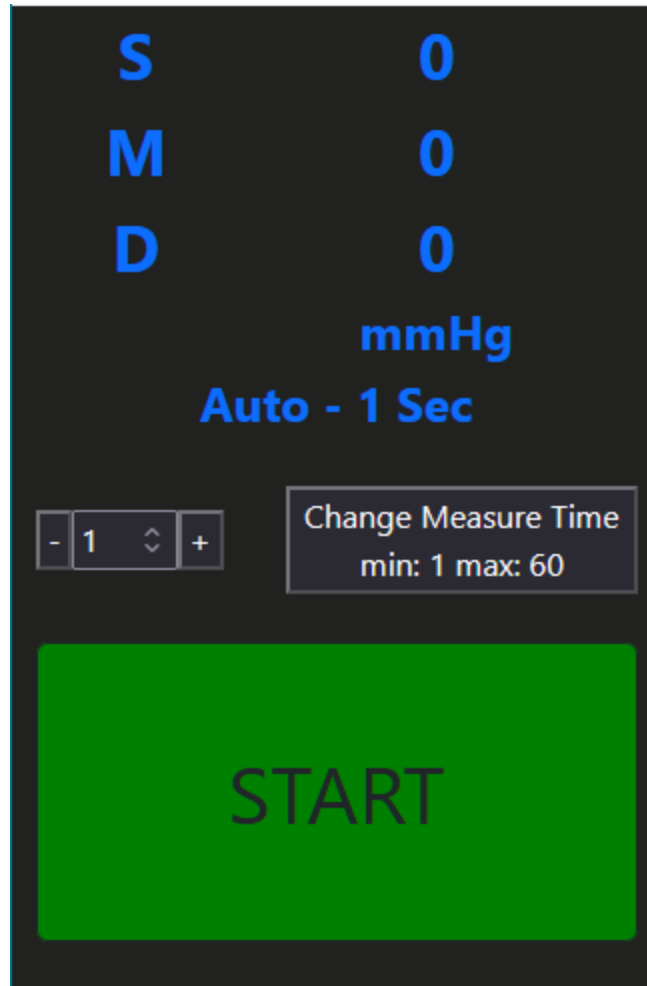
Figure 2: Home Page Before Power On



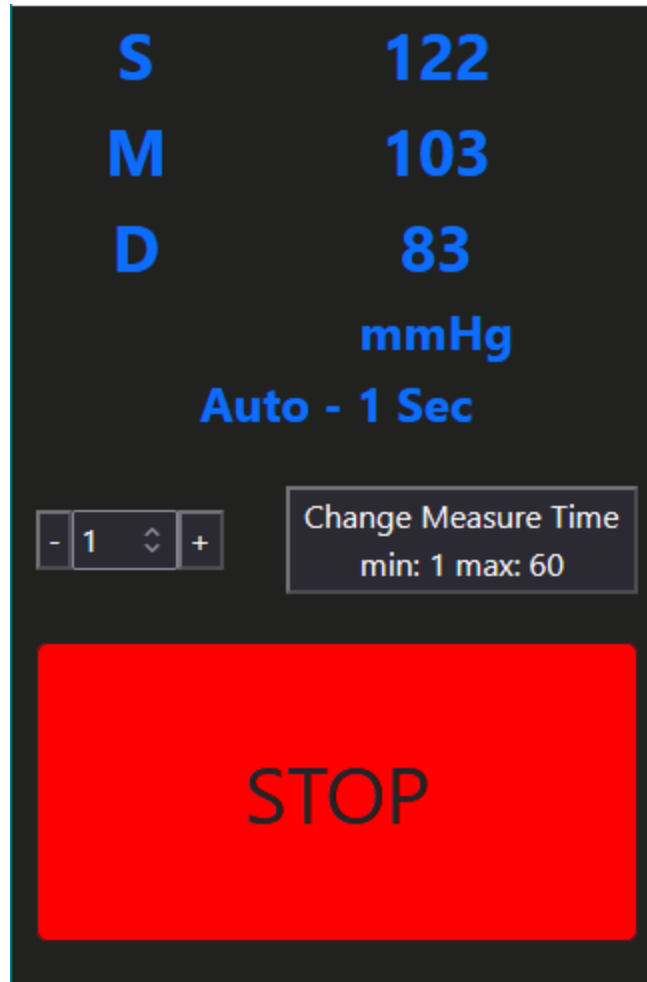
Figure 3: Home Page After Power On

### USING BLOOD PRESSURE MONITORING:

While all the monitoring functions are now active following power on, the blood pressure monitoring function requires additional configuration. The blood pressure panel sits above the power button panel in the middle left of the home monitoring page. Before active monitoring occurs for the patient's blood pressure, the time interval for data collection must be set or left at the default of collecting every second. Once the interval is set, you can hit the start button to begin blood pressure data collection.



**Figure 4: Blood Pressure Before Start**

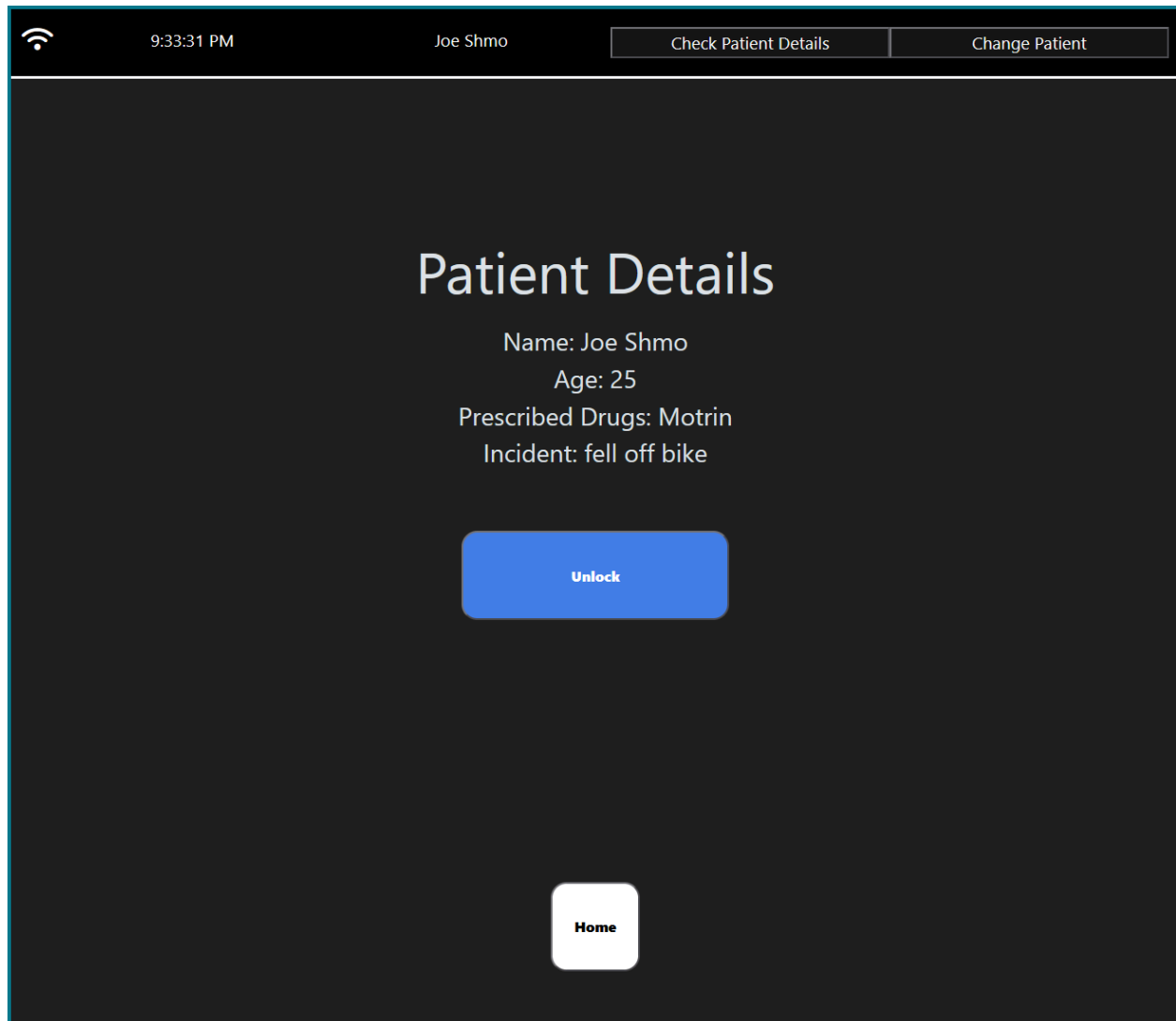


**Figure 5: Blood Pressure After Start**

**CHECKING PATIENT DETAILS:**

All patient information (besides the name in the header) is stored on another page. This page is accessed by clicking the “Check Patient Details” button. This page stores all the patient info in an easy-to-view format. All these patient info fields can be edited by clicking the Edit Lock button. **EDITS ARE NOT SAVED BY THE APPLICATION UNTIL THE EDIT**

**LOCK IS PRESSED AGAIN.**



**Figure 6: Check Patient Details Locked**

9:33:47 PM Joe Shmo Check Patient Details Change Patient

## Patient Details

Name: Joe Shmo

Age: 25

Prescribed Drugs: Motrin

Incident: fell off bike

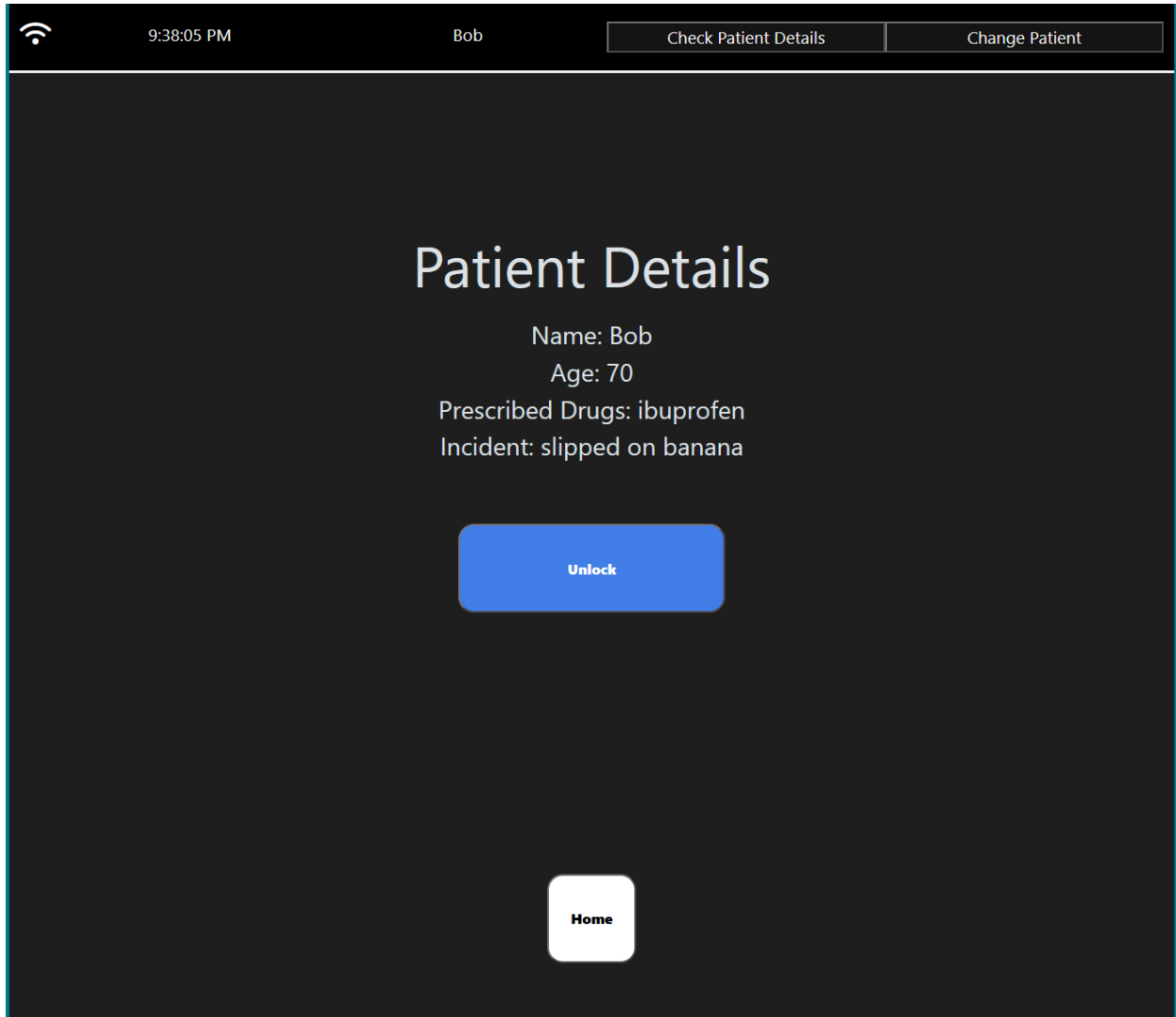
Lock

Home

**Figure 7: Check Patient Details Unlocked**

### **ADDING NEW PATIENT AND CHANGING PATIENT:**

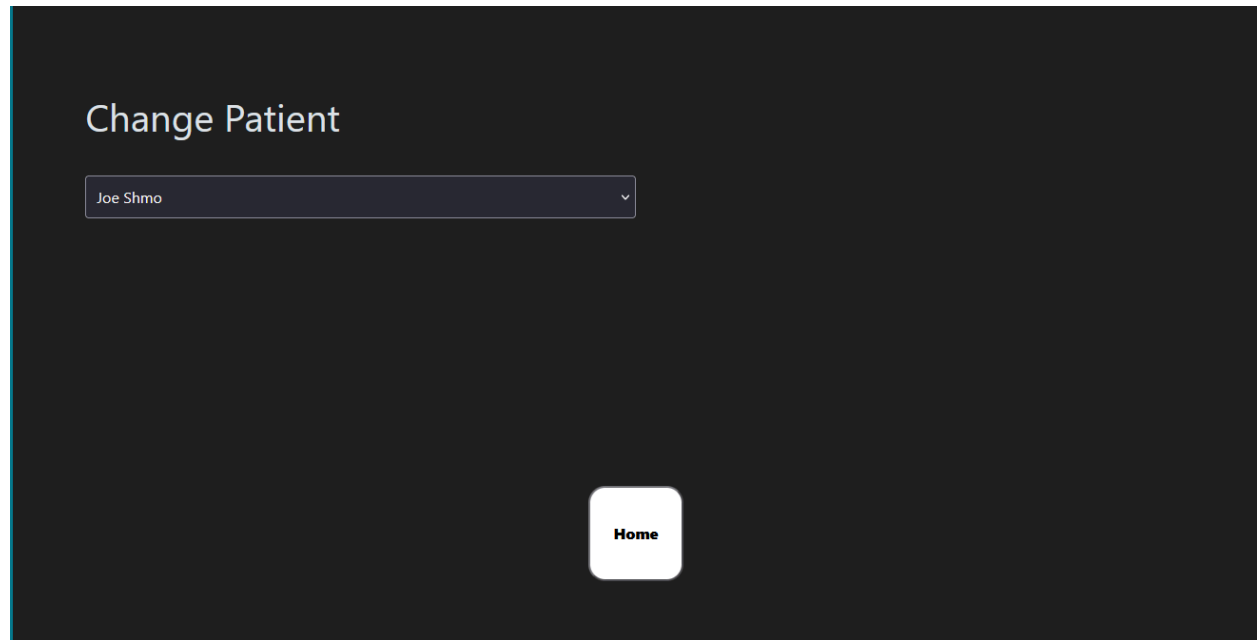
Changing the currently active patient and adding a new patient is contained on the same page. This page is accessed through the “Change Patient” button. The upper section of the page is dedicated to adding a new patient. The user enters all the fields and clicks the submit button to save the new patient. Once this button is pressed the GUI returns to the home screen with the new active patient loaded.



**Figure 8: Add new Patient Before**

Changing the active patient is achieved through a drop-down menu under the Create New Patient Profile section. Once a new patient in the menu is selected, the GUI will return to the home page with the selected patient active.





**Figure 9: Add new Patient After**