

Project Onyx Developer Guide

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Introduction

1.1 Project Source Code

1.1.1 Project Onyx Server Edition

1.1.2 Project Onyx Web App (SPA)

1.1.3 Project Onyx Apple Watch Edition

1.2 Volcano Version

All information in this document is under the context of Volcano firmware version V01.03.0 and Volcano BLE firmware version V01.00.00.00

Bluetooth Low Energy

2.1 Characteristics

Friend	Description	UUID
Heat Off	Write a value of 0 to turn the heating element off	10110010-5354-4f52-5a26-4249434b454c
Heat On	Write a value of 0 to turn the heating element on	1011000f-5354-4f52-5a26-4249434b454c

2.2 Known Issues

- The characteristics for reading temperatures and receiving temperature updates all round to the nearest $^{\circ}C$

This means we cannot fully support all temperatures in $^{\circ}F$

- A successful write update to the Volcano's screen brightness sometimes results in the Volcano not updating its brightness
- The Volcano sometimes doesn't free up its Bluetooth connection. This can be fixed by power cycling the Volcano's Bluetooth by holding down the “-” button and the “AIR” button at the same time.

Web Application

3.1 Technologies

- React
- Redux
- Styled Components
- React Snowfall
- React Range
- Lodash
- Bootstrap
- React DND
- React Router
- Create React App as a base
- Node LTS (20.11.0)

3.2 Supported Web Browsers

- iOS
 - Web BLE *my personal recommendation. I have no affiliation with this app
 - Bluefy
 - Path Browser (Unofficially supported)
- Windows/Mac OS/Android
 - Google Chrome

Other web browsers that support web BLE may also work

3.3 Running the App Locally

1. Clone the repository
2. Navigate to the root directory of the repository
3. Run the command “**npm install**”
4. Run the command “**npm start**”

3.4 CI/CD Pipeline

3.5 Design Guide