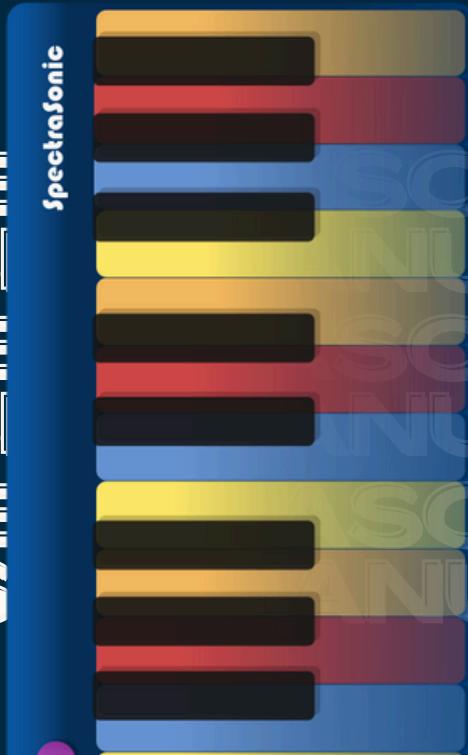




CMSC 161 B2L GROUP 5

# SPECTRASONIC USER MANUAL

SPE  
USI  
SPE  
USI  
SPE  
USI



# TABLE OF CONTENTS

**02**

Overview and Features

**03**

Technology Used

**04**

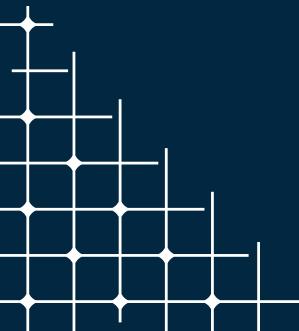
The Website

**06**

How to Navigate the Website

**08**

How to Use the Demo Page



# OVERVIEW AND FEATURES



The website is designed to showcase a cutting-edge keyboard through engaging and interactive visual content. Users can view the keyboard from multiple angles, and the interactive demo allows users to play the colored keys and hear the keyboard's sounds.

The interactive elements are powered by WebGL (Web Graphics Library), a JavaScript API that enables the creation of interactive 2D and 3D graphics within any compatible web browser, eliminating the need for additional plug-ins. This project is part of a learning initiative focused on integrating interactive graphics into websites.

# TECHNOLOGY USED



**Blender**, renowned for its versatility and accessibility as a free and open-source 3D creation suite under the GNU General Public License, offers an extensive range of features spanning from modeling and rigging to animation, simulation, rendering, compositing, motion tracking, video editing, and game creation. Throughout this project, Blender was employed as the primary tool for crafting the keyboard model and generating the essential points and line segments integral to the WebGL code.

**WebGL**, a dynamic JavaScript API enabling the seamless integration of 2D and 3D graphics into web environments, was the designated interface for designing and showcasing the visual components on the website. Complementing this, HTML/CSS/JavaScript was used to construct the front-end interface.

Moreover, **Python** facilitated the development of a script tailored for extracting vertices, normals, and indices from the crafted models within Blender, thereby enriching the project's technical depth and functionality.

# THE WEBSITE

The screenshot shows the homepage of the SpectraSonic website. At the top, there's a purple navigation bar with links for Home, Keys, Connectivity, and Versatility, followed by a 'Meet A Team' button. The main title 'SPECTRASONIC' is prominently displayed in large white letters, with the subtitle 'your interactive keyboard companion in creating vibrant musical worlds' underneath. Below the text is a large image of a colorful keyboard with RGB lighting, set against a background of a blue planet and a mountain range. A secondary image below shows a modern building with a grid pattern, with a keyboard overlay featuring a pink-to-purple gradient. The overall design is clean and modern, emphasizing technology and creativity.

SPECTRASONIC

your interactive keyboard companion in creating vibrant musical worlds

SpectraSonic

Home Keys Connectivity Versatility Meet A Team

SpectraSonic

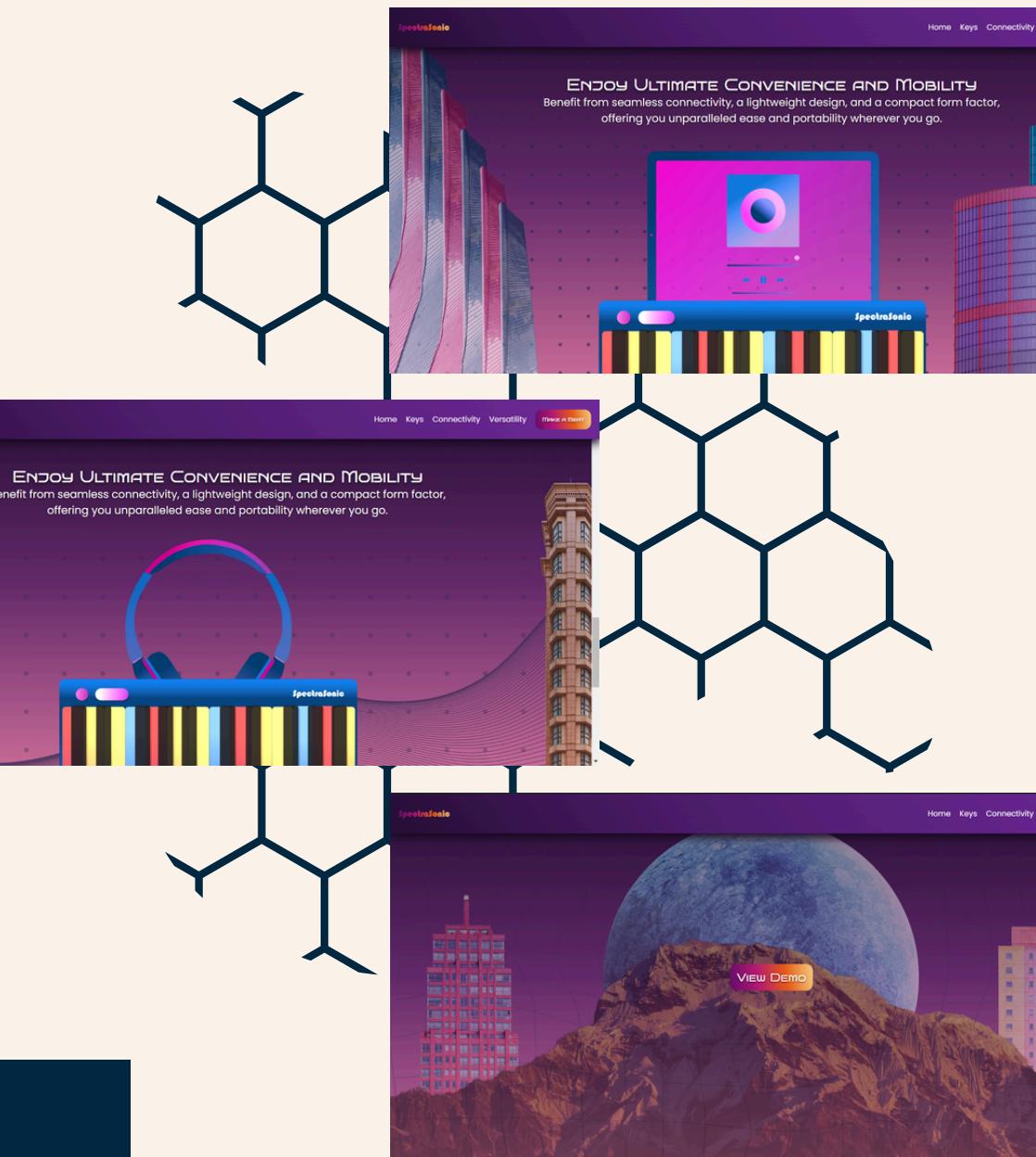
EXPERIENCE UNMATCHED SATISFACTION WITH EVERY KEY

Discover the joy of typing with our ultra-responsive soft keys and vibrant RGB lighting designed to elevate your typing experience to a whole new level.

SpectraSonic

SpectraSonic

# THE WEBSITE



# HOW TO NAVIGATE THE WEBSITE

Try clicking the  
unhighlighted buttons!

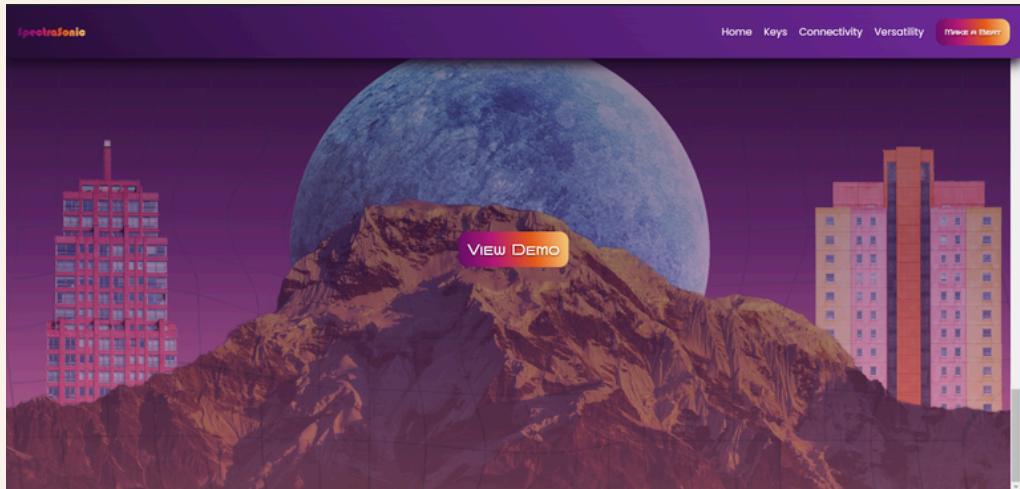
Clicking on **unhighlighted links** in the **navigation bar** will redirect you to different sections of the website, each of which describes the **features** of the physical product.



As you can see, there's a single **button** in the navigation bar. Clicking this button will redirect you to the **demo page**. Yay!

But wait, **there's more!**

# AT THE END OF THE WEBSITE...



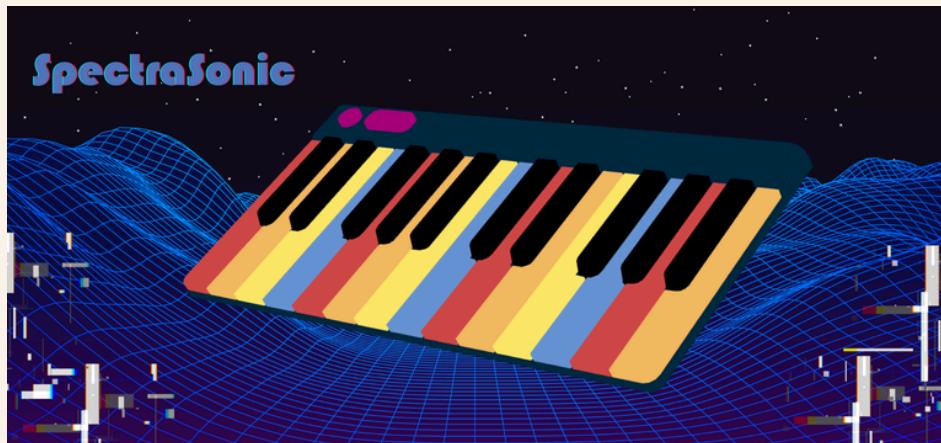
If you reach the end of the website, you'll see **another button**. Yay!

This button also redirects you to the **demo page**, which is the most interactive and interesting part of the website.

# HOW TO NAVIGATE THE DEMO PAGE

To play the keyboard, just press the keys on your physical keyboard.

Clicking the **1, Q, W, E, R, T, Y, U, I, O, P, [, ], and \ keys** on your keyboard will play **specific notes** on the demo keyboard. Additionally, **left-clicking and dragging** the demo keyboard will allow you to **view** it from **different angles**.



This is what you will see in the demo page. Enjoy!



ζεεεταζουνιε

# SPECTRASONIC SPECTRASONIC SPECTRASONIC

**SUBMITTED BY:**

DIANA KATHLYN CABRERA  
SAMANTHA SHANE DOLLESIN  
ANDREA KRISTINE PONGCO  
LINO JOSEPH REYES

**SUBMITTED TO:**

JAMLECH IRAM N. GOJO CRUZ

**CMSC 161 B2L**

A.Y. 2023-2024