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Development of a Natural Light Alarm Clock System

“Rise and Shine” For College Students



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ABSTRACT

This study aimed to address a prevalent issue among college students - oversleeping. Research indicates that abrupt awakenings can negatively impact health, while gradual waking is preferable. Inspired by natural waking patterns, our methodology focuses on using light to gently rouse individuals. Throughout history, humans woke naturally with the sunrise, a concept we apply to modern students. Our product, tailored for Northwestern State University students, integrates a Flame motif and gradually increases light intensity to emulate sunrise.

INTRODUCTION

Many college students struggle with oversleeping, often leading to missed classes or work commitments. They require a solution that doesn't rely on jarring phone alarms. The challenge was to devise a method of waking students gently yet effectively. Late attendance and grogginess are prevalent issues among students today. To address this, we've surveyed the NSU students to identify their demands, and based on that we introduced a natural light cycle to facilitate a peaceful awakening, contrasting with traditional alarms' harsh sounds that can result in grogginess and a rough start to the day.

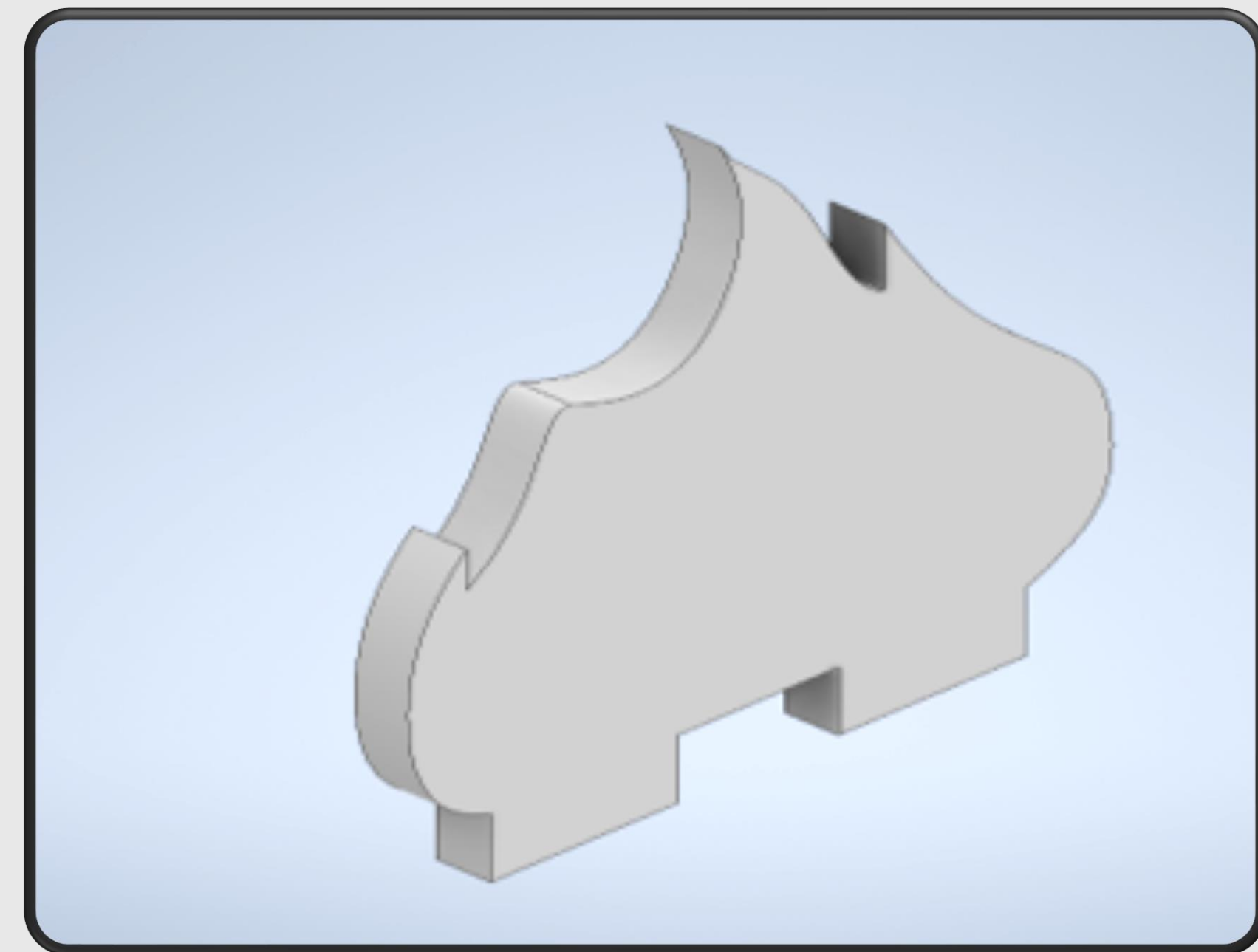


Fig. 1: The Flame piece of the clock that relates to NSU.

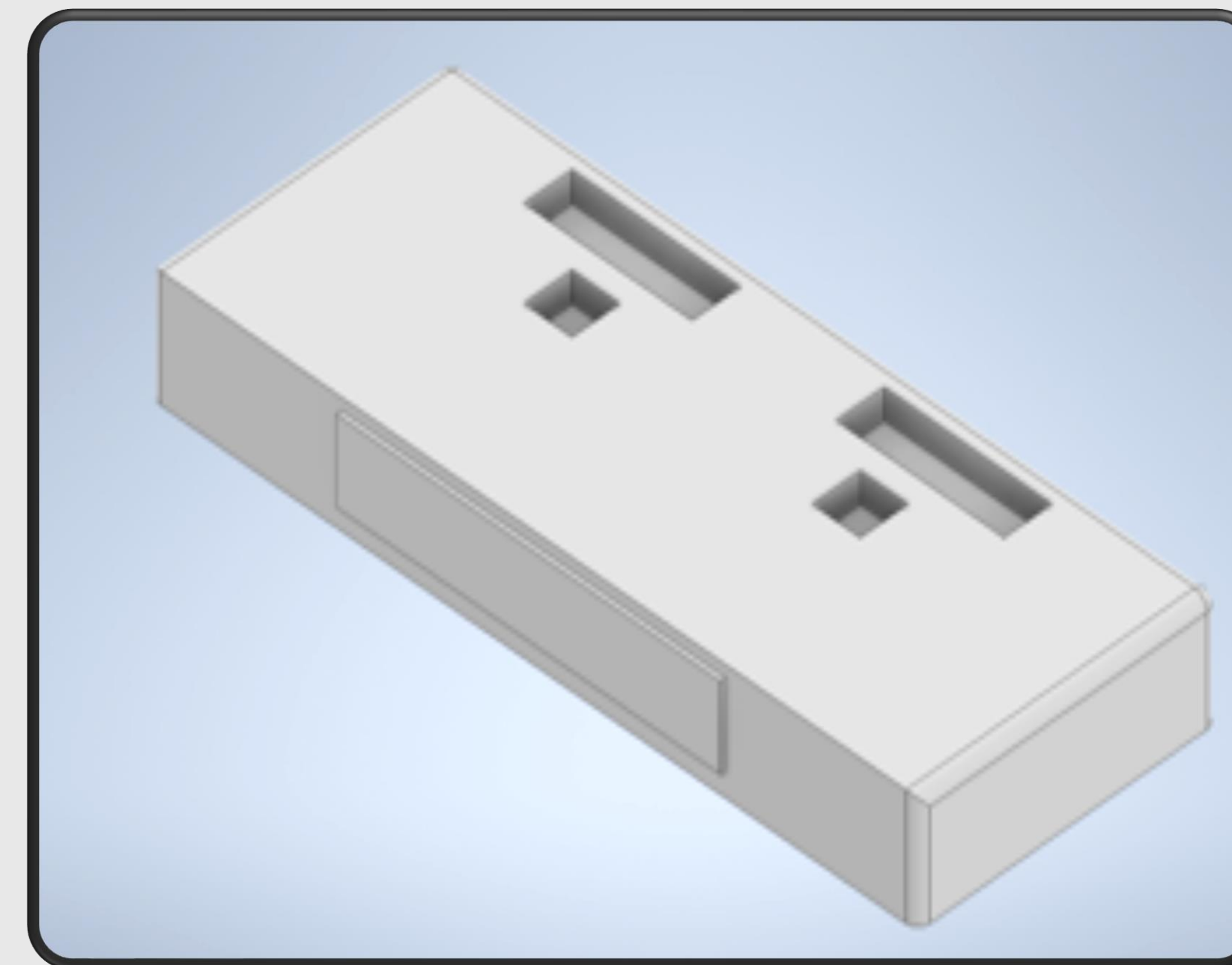


Fig. 2: Foundational component that houses the flame feature and encases circuitry.

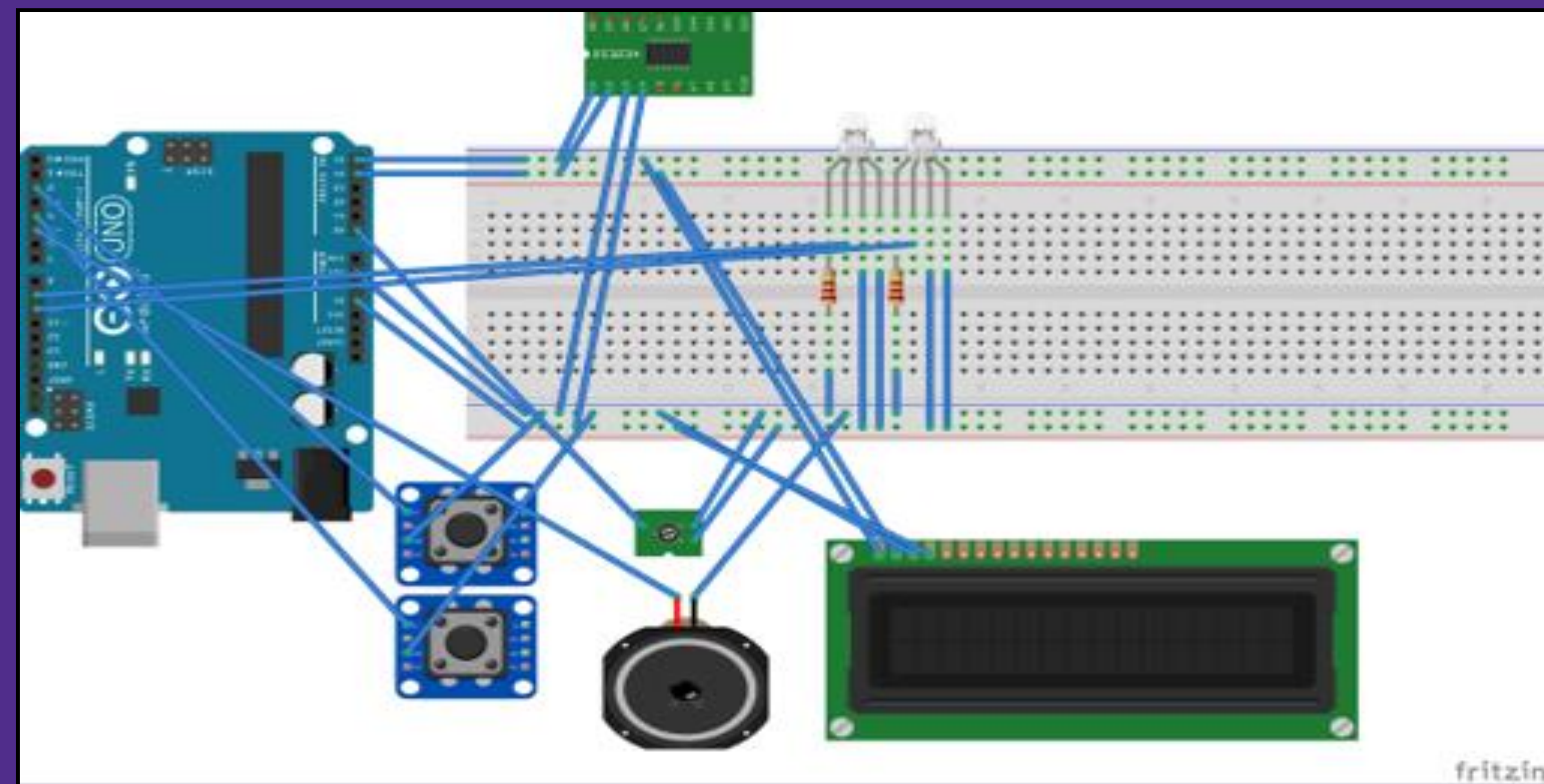


Fig. 3. Circuit Diagram with Arduino

FURTHER INFORMATION

Please scan the QR code to fill out a quick survey asking about your thoughts on natural alarm clocks.



CONCLUSIONS

- LED color alarm clock with a gradual wake-up feature emerges as a superior alternative to traditional alarm clocks.
- Natural light simulation has been found to Promote improved sleep quality and a heightened sense of morning alertness.
- LED color alarm clock stands out as a modern solution that harmonizes technology with the principles of natural human physiology.

ACKNOWLEDGMENTS

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REFERENCES

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