Who to email to:
Check the website for tech house scili, as they have a list of supporters that includes a lot of the ppl we would want to email.

To: rashid_zia@brown.edu
Subject: Scili Tetris Games Proposal

Hello my name is Kazen, a junior studying Computer Science. Over the past summer, a fellow student and I have been thinking a lot about a past project here at Brown University - the SciLi Tetris project. In case you're not familiar, it was a large-scale display made by the Technology House that utilized the Sciences Library to make the world's largest Tetris display at that time (http://bastilleweb.techhouse.org/index.html). This has been an inspiration for us ever since coming to Brown.

Since it has been over 20 years since the project was initially done, we feel that now would be a great time for this project to be done again, as there have been significant upgrades to the kind of technology used for this kind of project. We believe these changes will allow us to make more additions to the original project and add our own twist.

While the original project used one color, our plan is to create a system that can do multiple colors, along with more games than just Tetris.

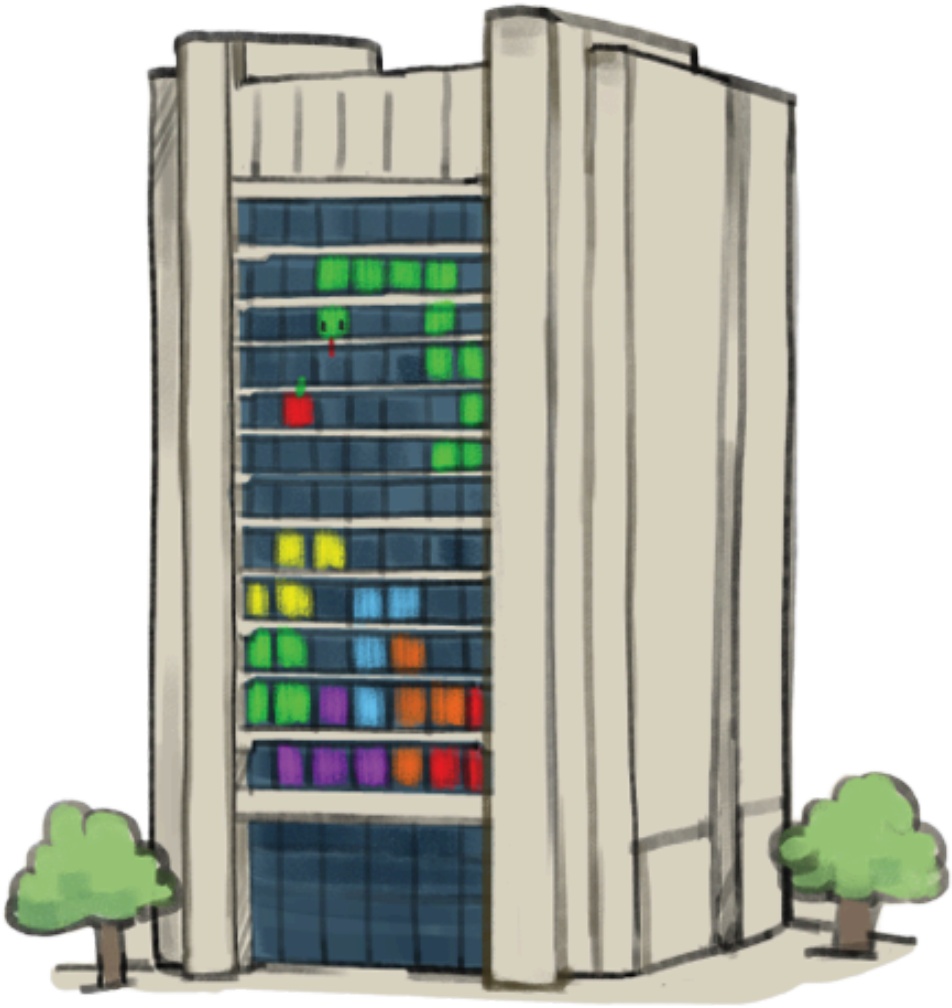
Attached is a pdf that will be split into several sections including covering our **proposal**, **plans**, **team**, and **timeline** if given permission.

We send this email because while we believe we can engineer the technology involved in the project, we understand there are many logistical administration complexities that would have to be addressed, and so we were hoping to find guidance on how to handle those aspects. Please give this document your consideration and let us know the feasibility of this proposal.

Thank you for reading, and have a great day!
Kazen Gallman, and David Chen

Scili Tetris/Games

Kazen Gallman ‘24
David Chen ‘24



1 Objective/Proposal

Our idea is to create a modernized version of the original scili tetris game (where lights were put in scili windows to effectively create pixels) which when running was the largest functional tetris game in the world. The goal is to update the technology used in the original version by Technology House, which would allow us to create a more robust version of the display. Here is the link to the source of our inspiration: http://bastilleweb.techhouse.org/.

Listed below includes a bulleted description on some benefits and considerations for the project:

- We would push towards designing a reproducible system that could be deployed for years to come for different kinds of events. (For example, at events like ADOCH it could be a great attraction, especially considering Brown's old scili tetris inspired many including myself to apply to Brown).

- Similar to the original project, we believe it would cause many news outlets to take note, so it could also become a widespread advertisement for the university.

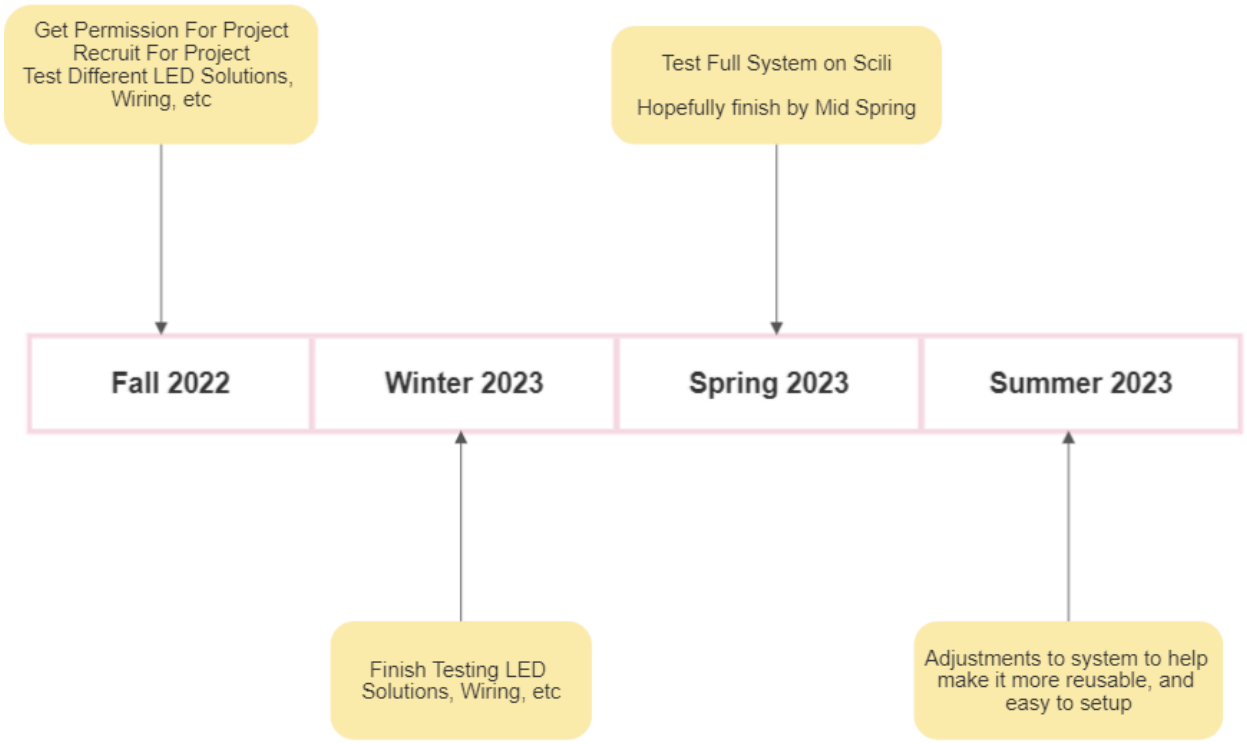
- In addition to upgrading the original technology, we believe adding more games than tetris could help differentiate itself from the original project. This could include games like Snake, or Pong.

We believe that this would be a worthwhile undertaking during our time here at Brown. This document is meant to be the first step towards obtaining approval for this project. We understand that this process would require permission & coordination from several people at Brown, including Fire Safety Officers, Building Managers, Facilities Management, Deans, and more. Our hope is to not only obtain permission for this project but to also gain insight into how to make this project logistically possible.

Financially, we would start the project by paying out of pocket, and as we get near a working system we would look for outside support from sponsors depending on the estimated costs it would take to buy the rest of the materials. (We are not asking for financial support, but if the project does become something successful, financial assistance would be helpful).

2 Timeline

The timeline would be as follows:



The goal here is to have a working version of the project by the middle of Spring Semester so that It could be ready for events like ADOCH if needed.

3 Logistics

Planning:
An important part of this project will be coordinating with the Scili staff and other management. As of now, we currently do not have a clear idea on what this process may involve. We do have documentation from Technology House from 20 years ago, but it is likely that most of it is outdated.

Our current plan is to seek initial approval, and then from there ask management to help us flesh out more of the details on how this process will go.

Team:
The team as of now will consist of some of the members from the SBUDNIC satellite team. This team was involved in launching a satellite into orbit with a 1.5 year turn around time after being given a spot on a Summer 2022 SpaceX launch, becoming one of the fastests sketch-to-launch CubeSats.

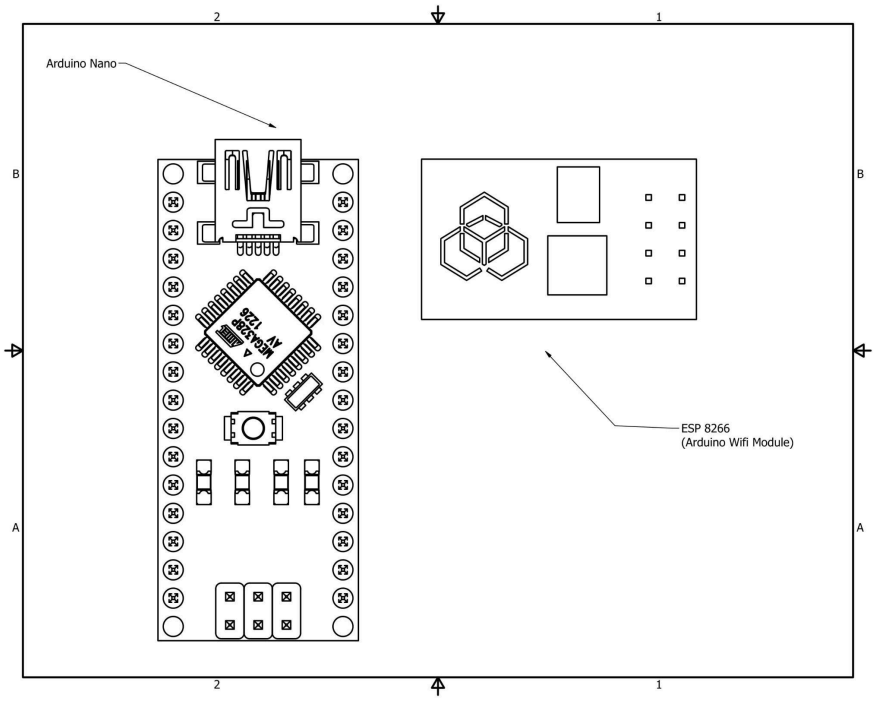
Given the group's experience with circuitry and a fast turn around time, we believe they will be a great fit for this project. If there is more demand for members in the future, we will recruit more members as needed.

4 Preliminary Designs

This design includes 2 main components

- Electronics Package
- LED Structure

The Electronics Package will connect to the LED's and take commands remotely via wifi. We plan to use an Arduino Nano and a ESP 8266 Wifi Module to accomplish this.



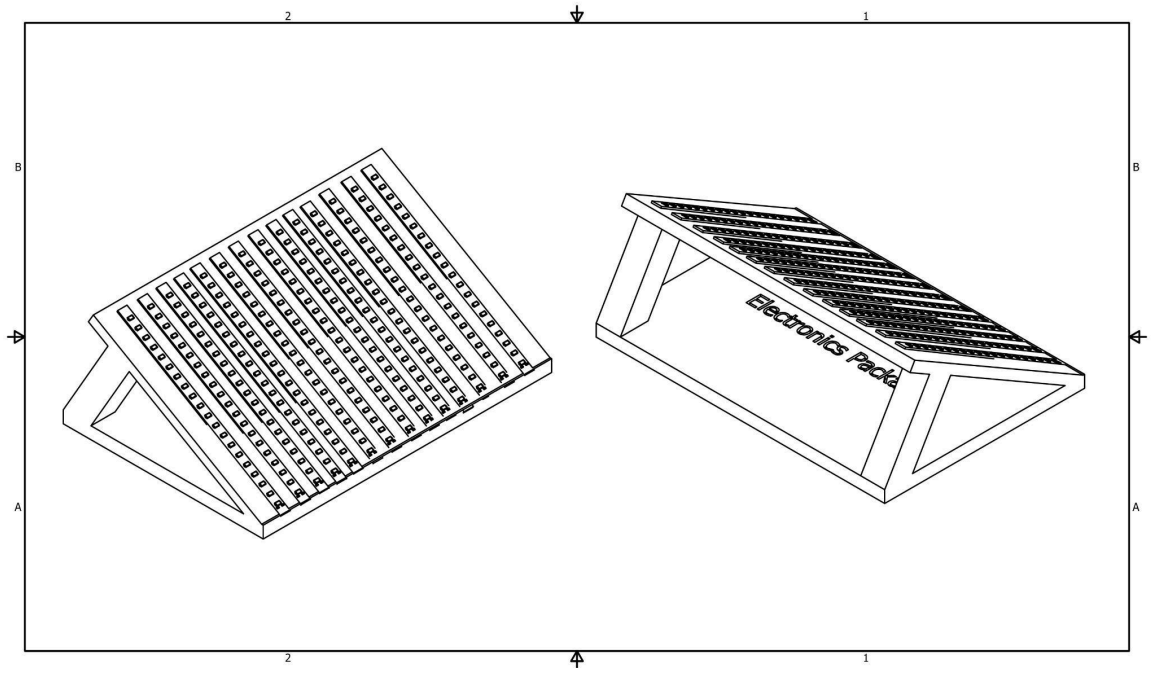
The LED Structure is more prone to heavy changes, since this process will take a fair bit of Research and Development. Our overall goal is to find cost effective LEDs that are strong enough for Scili use. The combined structure should be

- Compact
- Easy to set up
- Bright
- Low Diffusion (between adjacent windows)

While it may not be possible to develop a system that accomplishes all of these tasks, we will try to make one that covers as many as possible.

One example design is shown below, but it will most likely be changed heavily.

This design uses a slanted surface to hold several column of LED strips, which then connect to all the electrical components below



5 Conclusion

We hope that this document has provided you with a good understanding of what the project will entail. In truth, none of the team fully understands what future obstacles may come our way, but in our opinions, the uncertainty is exactly what makes this project worth doing. This is a passion project born out of our curiosity and yearning for innovation. We have spent a lot of time planning this project and prototyping potential engineering solutions; this is something that we want to take seriously. Hopefully, this project will serve as our successful first step in creating a lasting mark during our time here at Brown.

Sincerely,

Kazen Gallman ‘24
David Chen ‘24