

SQUIDISH
GAMES

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ABOUT THE GAME

- Menu screen
 - **Start**
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 - **Meet Team**
 - **Quit**
- Four mini-games (randomized order) each with a corresponding bomb component
 - **Tic Tac Toe**
 - **Hopscotch**
 - **Simon Says**
 - **Red Light, Green Light**

MAKING THE GAME OURS



Incorporated each of the bomb's hardware components:

- **Keypad** for Tic Tac Toe
- **Toggles** for Hopscotch
- **Button** for Red Light, Green Light
- **Wires** for Simon Says

GROUP DYNAMICS

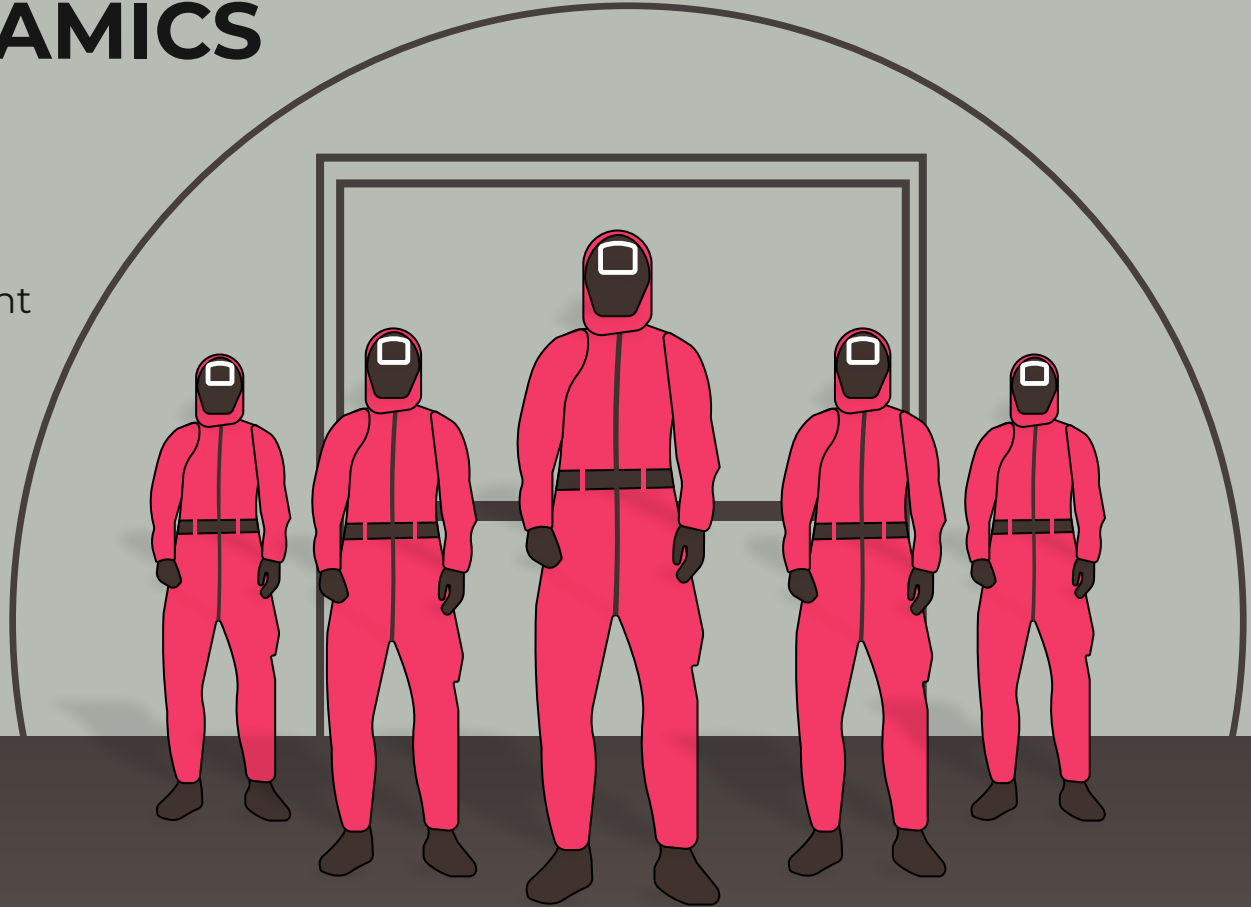
Responsibilities:

Megan - Hopscotch/Tic Tac Toe

Khalil - Simon Says

Matthew - Red Light Green Light

Christa-Marie - GUI/Tic Tac Toe



Tic Tac Toe



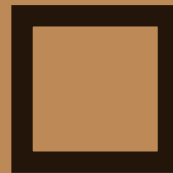
ABOUT

The player must face off against an AI opponent in a fast-paced game of Tic Tac Toe. The game simulates a bomb keypad input where each square on the 3x3 board corresponds to a number key (1–9). Quick decision-making and pattern recognition are key to survival.



OBJECTIVE

Win or tie against the AI. A loss causes the bomb to explode. The game continues playing until either the user or AI reaches three wins.



MECHANICS

The game board is a 3x3 grid. Player inputs are collected via a hardware numeric keypad or mapped keyboard keys (1–9). The player uses numbers to select grid positions. After each move, the AI selects an open tile using basic logic to block or win.

Hopscotch

About:

Hopscotch is a suspenseful mini-game inspired by games of chance. Players must flip one of four toggle switches—each representing a panel—to “step” safely forward. Only two panels are randomly marked as safe each round.

Objective:

Choose the correct toggle to advance through the 10 levels.. If you pick wrong, you're eliminated and sent back to level one (you have 10 lives)

Mechanics:

Toggle inputs are mapped to on-screen panels. The safe panels are determined using `random.choice()` and change with each level. The player must react quickly and strategically to progress.

001

456

Background:

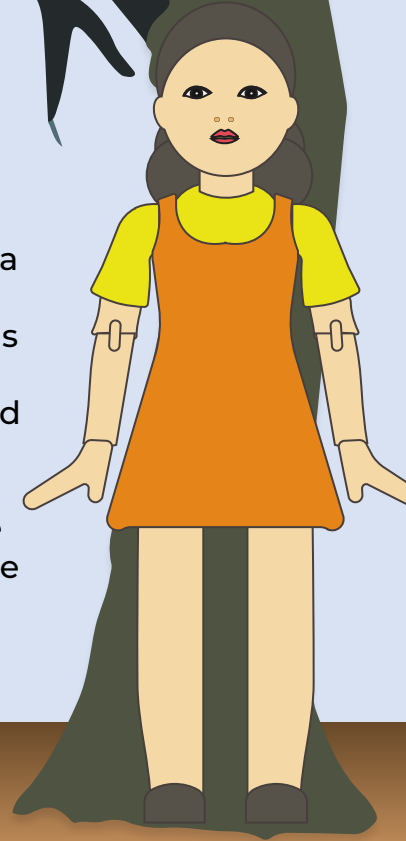
Red Light, Green Light, is a childhood game where the rules are very simple – only move on green, or you are eliminated. The doll turns her head towards the field when the light is red, to catch anybody breaking the rules, and if she catches you, you are eliminated.

How to Play:

Whenever the doll says “green light”, the green light is illuminated on the button, and you are free to move as much as desired by pressing the button. Whenever the doll says “red light”, the red light is illuminated on the button, and moving results in elimination.

Game Logic, Simplified:

The game starts on a red light, then after a random number of seconds, it will turn green, and so on. The state of the button is always being checked. While the light is green, the button is illuminated green, and if the button is pressed, a counter is incremented, and compared to a target value. Whereas when the light is red, the button is red. If the button is pressed while the light is red or the time runs out without being at the target value, the game is over.

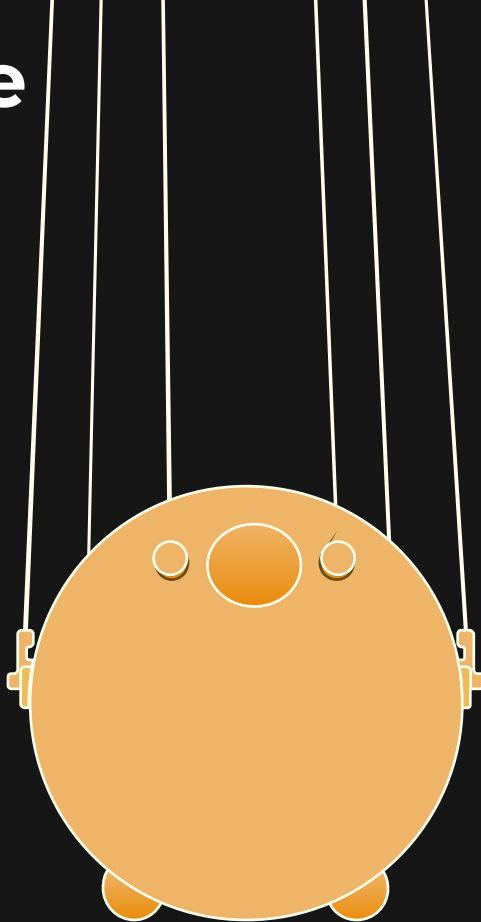


Red Light, Green Light

Simon Says Game

Background Of Simon Says:

- Simon says is a very popular game, usually, but not limited to being played in ones childhood.
- The game dates back to at least the 19th century, with earlier roots in command-based children's games from Europe.
- Simple game with simple rules
- Testing your listening skills



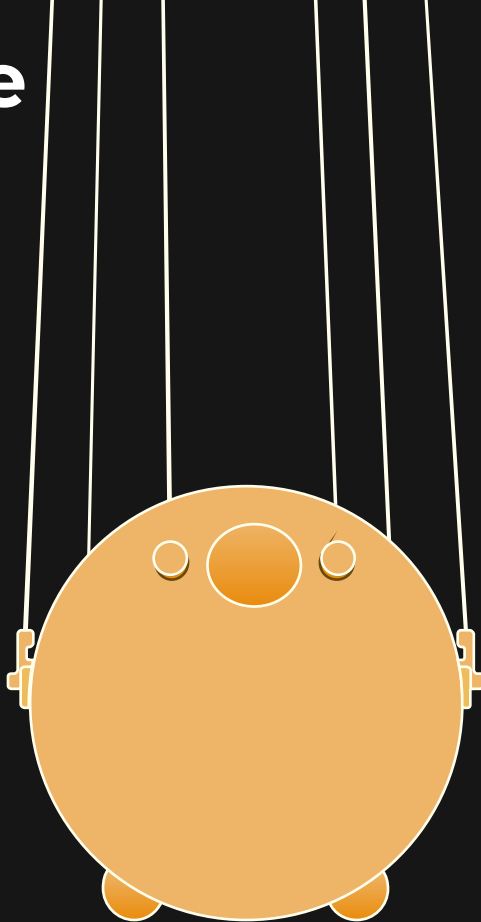
How to play:

- "Simon Says" is a listening and reaction game where players must only follow commands that begin with the phrase "Simon says."
- If a command is given without "Simon says" and a player follows it, they're out, testing self-control and attention.
- Player must interact with the wires completing tasks, Simon said to do so.
- A 10 second time constraint has been added
- There are five colored wires that the player must interact with: brown, red, orange, yellow, and green.

Simon Says Game

Implementation Of the Wires :

- Putting the wire component into binary, helped with knowing the wire state of each wire after every command.
- Checking if the order was correct after the user completed the command
- Implemented the usage of the space bar for the user to lock in the action they completed.



Simon Says Logic :

- The game starts with the recruiter of Squid games challenging you to play Simon Says.
- All the wires start connected
- The players has 10 seconds to complete the command only when simon says to complete the command.
 - If the player fails to complete that command within the 10 seconds, they are eliminated.
- Since, the wire states are being checked after every command:
 - If the player has completed the wrong task(disconnect or reconnect the wrong wire), they are eliminated)

PLANS FOR FUTURE DEVELOPMENT



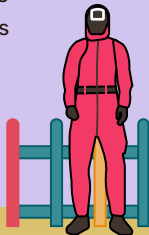
Tic Tac Toe

In future, this game could be designed using Minimax Algorithm approach to increase difficulty. The ability to choose other objects to represent 'X' or 'O' such as emojis.



Hopscotch

In future, this game could be designed whereby the chances of obtaining a correct tile is decreased as levels progress



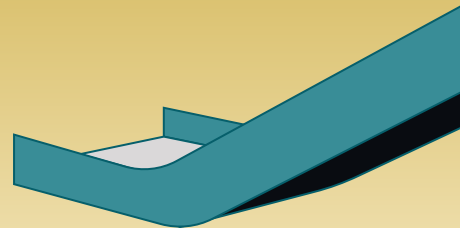
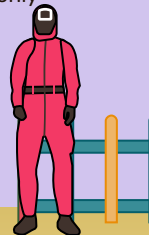
Simon Says

Future work includes the usage of toggles, the keypad, and the button. These upgrades to this game would challenge the player to interact with multiple components of the bomb.



Red Light, Green Light

Future work could be implemented so that the illusion of running down the field is achieved, as currently the distance to the end is only displayed numerically.



LEARNING LESSONS



MEGAN

“Working on this project improved my confidence with Python and hardware integration. It helped me build creative logic and problem-solving skills, especially while designing and refining the Hopscotch phase.”



KHALIL

“I gained a lot of perspective on how to become more efficient when working on bigger projects and how to navigate ambiguous problems that arise while implementing new idea.”



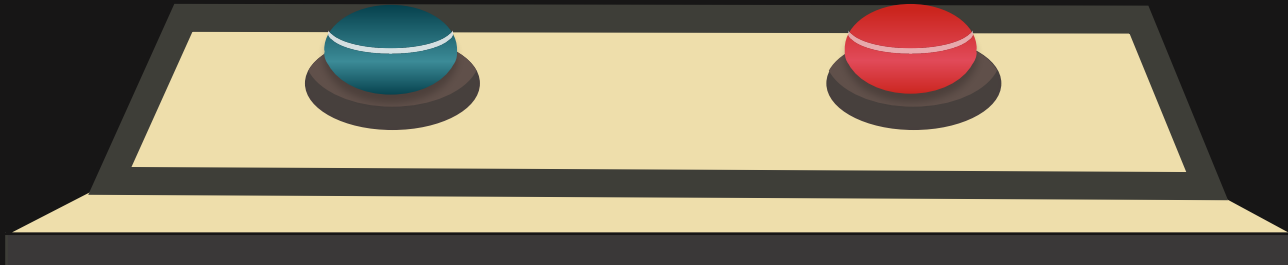
MATTHEW

“All in all, this project really made me become resourceful, and use resources in ways that I never would have.”

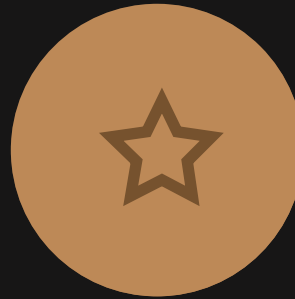
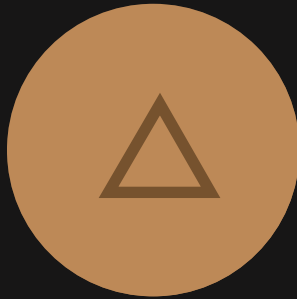


CHRISTA-MARIE

“From a front-end perspective, this project helped sharpen my problem-solving skills, especially when working through uncertainty. ”



OPPORTUNITY TO REDESIGN



The Bomb-

Different variations of the bomb, with different components on the bomb, would allow for more creativity and originality in game design.

Time -

Assigning the bomb before break so that there is more time to work on it could be helpful and lead to better bombs.

Bomb.py -

Update the bomb file so that every component is utilized, so that there is more equality amongst different phases of the bomb (i.e. someone has to create completely new logic and create the phase, whereas someone else has to just create the phase).