UNUS MOTUS

It is year 3021. You've just woken up.

After the Robot Wars of 2921, scientists put you and a few robotic companions into hibernation to preserve the human race.

In the 100 years you've been asleep, a lot has happened. The facility you've been in seems to have decayed.

Thankfully, your robots are still partly functional.
Let's get out of here.

This game was created by Oliver Ni (11) and Kyle He (11) to compete in the FBLA Computer Game & Simulation Programming 2021 event.

The game itself is very self-explanatory and has in-game dialogue to guide you along the way, but we'll include instructions here in case.

Launching the game

This should be fairly simple; simply double click the file corresponding to your operating system. On Windows, click the `Unus Motus Windows.exe` file, and on macOS, click the `Unus Motus MacOS.app` file.

You may be prompted to bypass a security setting. **This is not an issue with the game itself, but rather a feature of Windows we cannot bypass.** If you run into issues starting, click "More Info" and then click "Run Anyway" when prompted.

Instructions (as shown in game)

WASD or arrow keys to move, space to toggle sticky characters, R to restart a level, and ESC to open settings. Use the mouse and click to press buttons in menus.

Certain characters can only move up and down, certain characters can only move left and right, and certain characters can only stick with other characters. (Hence the name *unus motus*, Latin for "one motion".)

The objective is to use teamwork to move all the characters to the exit in each level. In addition, there may be deadly lasers to avoid, buttons to turn off the lasers, crates to push out of the way, and more.

There are two different game modes: hardcore mode has 3 lives, a move counter and a leaderboard; casual mode has unlimited lives and a level select menu. There are 14 levels, each getting progressively harder.

(To the judges: Some levels may be very challenging, so in order to test the leaderboard, you may just move into a laser a couple times to end the hardcore run end prematurely, taking you to the end screen.)

Multiplayer Functionality

In hardcore mode, there is an online leaderboard to submit your score. Score is calculated based on the number of moves you made and the level you reached.

Global High Scores

Rank	Name	Score	Moves	Level
1.	Olive ni	138804	6	17
2.	asdfasdfs	138804	6	17
3.	Oliver Ni	138804	6	17
4.	AAAAA	80138	18	17
5.	Yelll	76026	20	17
6.	kyle he!	58384	23	14
7.	Kyle	33606	51	12
8.	Kyle He	32998	72	14
9.	Kyle He 2/25/21	10544	518	12
10.	Oliver Ni	9465	875	14

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Code & Technical Details

The game is built with the Unity Game Engine, a well-known tool for creating games. With over 1,000 lines of C# code, the game is very well-thought out and extensible. We went through several iterations of internal workings before this version.

The program is thoroughly documented using C#'s XML documentation feature, as well as normal comments throughout the code to explain what is going on.

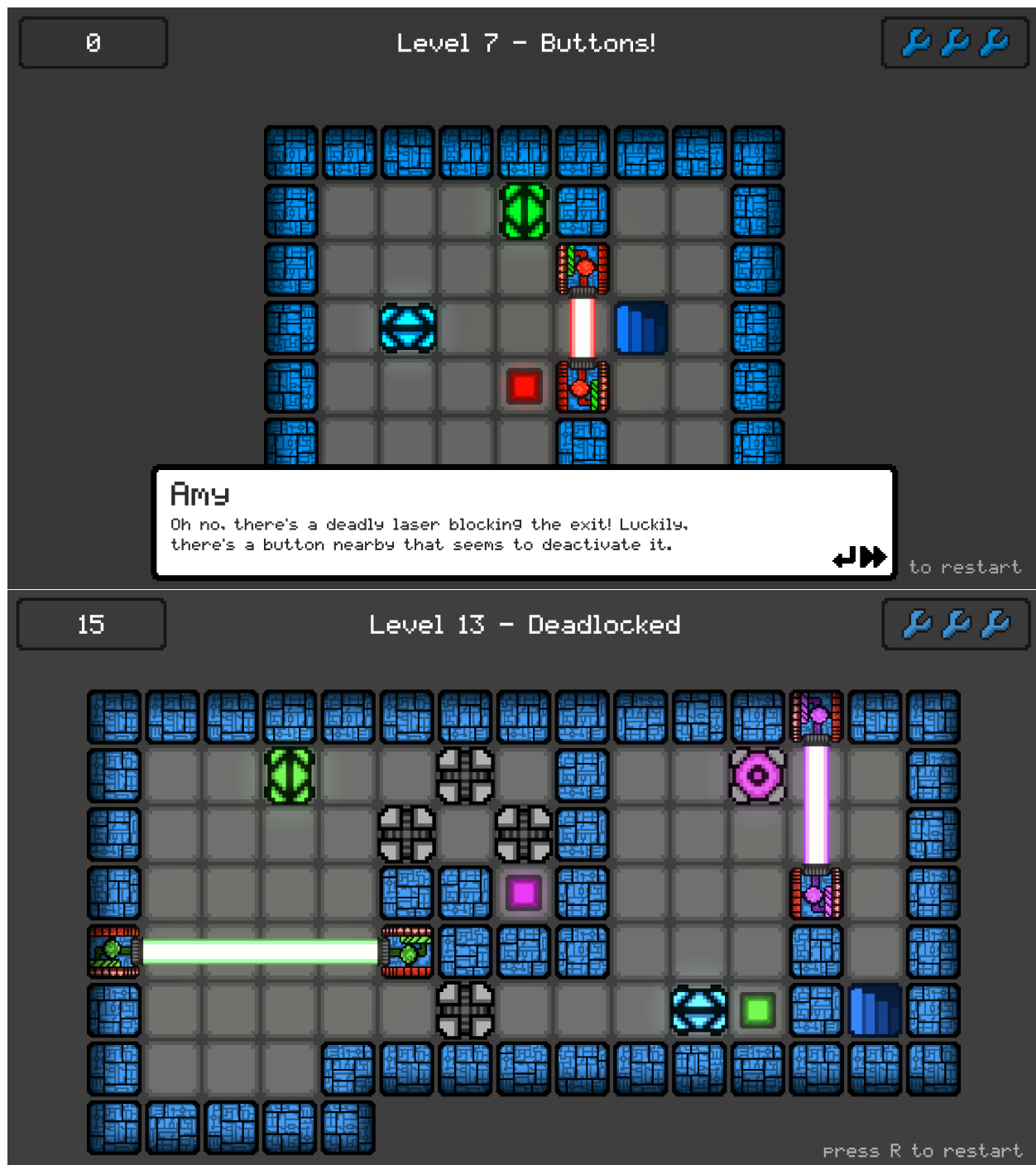Our (overengineered) backend for the global leaderboard is built using Elixir, making it very scalable and fault-tolerant.

Credits

All art, effects, and UI elements are original. We wanted to create the best game possible, so we created each sprite from scratch to fit in with the feel and mood of the game.

Music is created by HeatlyBros. The music is royalty-free and we are permitted to use it in our game.

Example Levels

Level 7 - Buttons!

Amy

Oh no, there's a deadly laser blocking the exit! Luckily, there's a button nearby that seems to deactivate it.

to restart

Level 13 - Deadlocked

press R to restart

Example UI

UNUS MOTUS

New Game

Instructions

Credits

Quit

Gamemode Select

Casual Play

Hardcore

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Casual Play

In this gamemode, you can practice each level to compete in the global leaderboard in "Hardcore mode".

This game mode has:
Unlimited lives
Level Selector

Start Game

0

Settings

Music

Sound

Show Dialogue

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Quit Game

press R to restart

Credits

Programmed and created by

Oliver Ni and Kyle He

Created for

FBLA Computer Game and Simulation
Programming 2021

Music Attribution

"Dark Alley" - HeatleyBros
"Press Start!" - HeatleyBros

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