🎲 Distanced Hybrid Board Game

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Hybrid Boardgames for Distanced Play

Distanced Play allows people in isolation due to the COVID-19 pandemic to play boardgames remotely with friends and family using digital tools such as cameras and video chat. Unlike traditional boardgames, hybrid boardgames integrate both physical components and digital technologies. This provides opportunities for novel gameplay and interactions.

Our study focuses on developing hybrid boardgames that can be played remotely, exploring how they contribute to players' game experience.

The Dark Forest
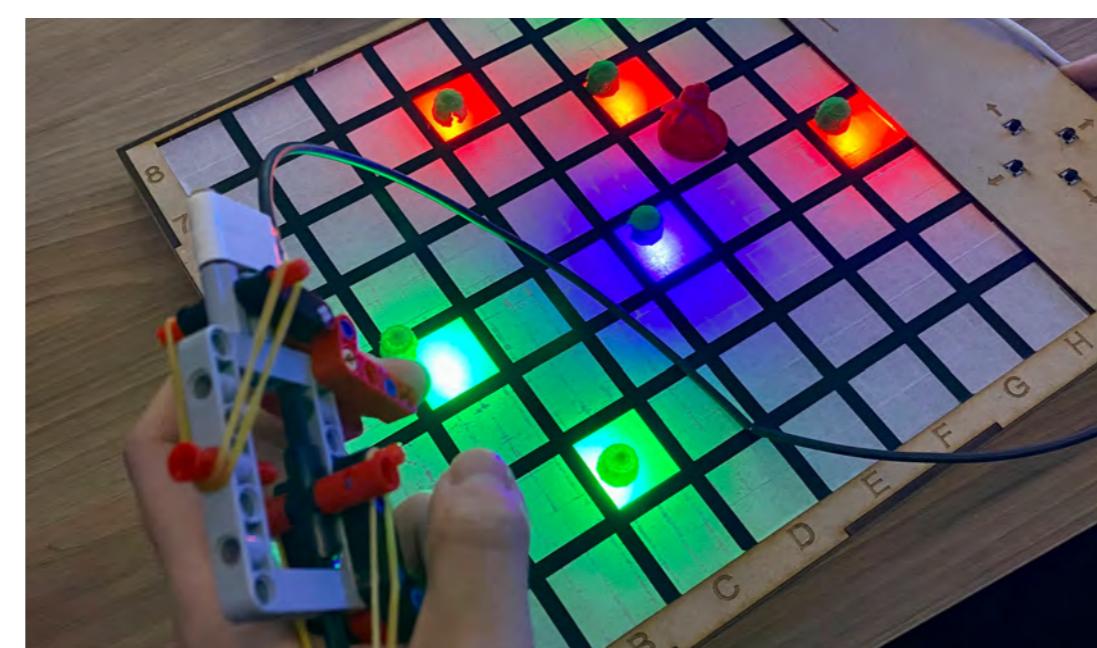
The Dark Forest, a strategy boardgame, explores the use of hybrid components to provide an immersive sense of touch, hearing and vision. It examines how interactive components, audio sound effects and LED strips can bring novelty to tangible boardgame play.

Take the role of a hunter, explore the dark forest, light up the campsites, and kill others before they find you!

Treasure Hunter
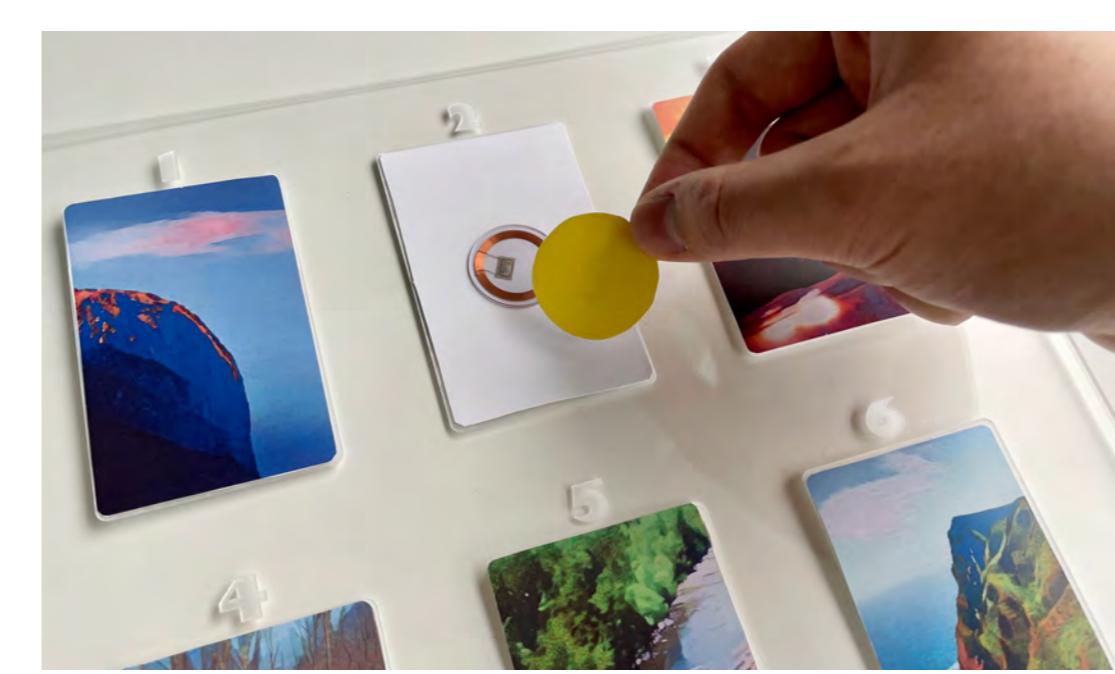
Playing a card game with physical cards can be challenging in the setting of distanced play. This game is about hiding and hunting treasures. Treasure Hunter uses RFID readers, gesture sensors, LED strips and Audio Amplifiers to enhance tangibility and transform player experience.

Become a hunter or hider, find or stop others to find the secret of the treasure!

Contribution

Research benefits
- Increasing resilience to social isolation in pandemic
- Discovering opportunities to create unique game experiences for distanced boardgame play.

Our contribution
We explore how physical components can extend the novelty of tangible interactions, and how digital technology can be incorporated as a game component rather than as a distraction.

We explore how sensors can be implemented as a modularized tool to allow developers to combine different sensors and create different games. We also open the potential for future modularized distanced hybrid board game tools.


Multi-sensory Stimulation
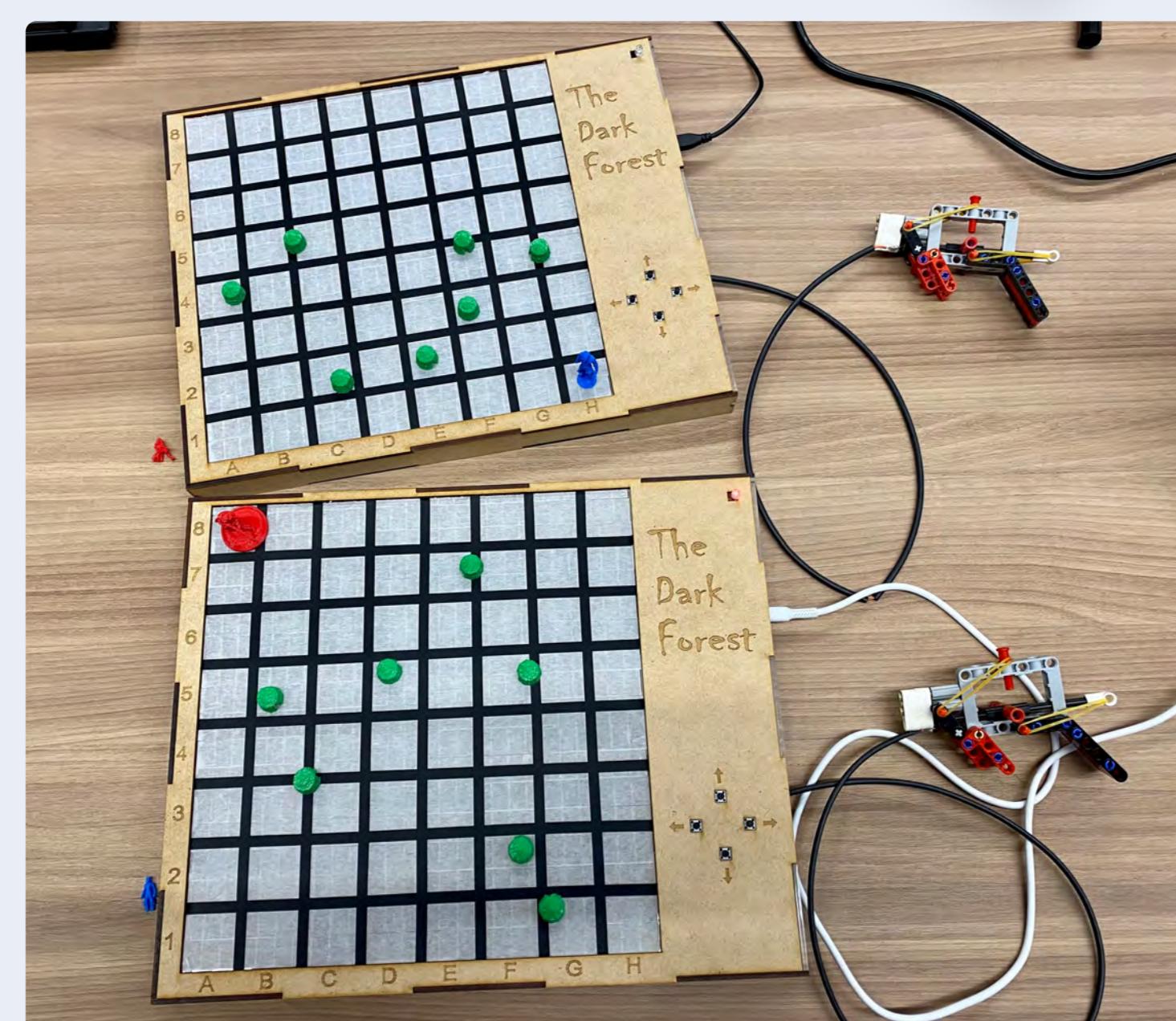
Product View
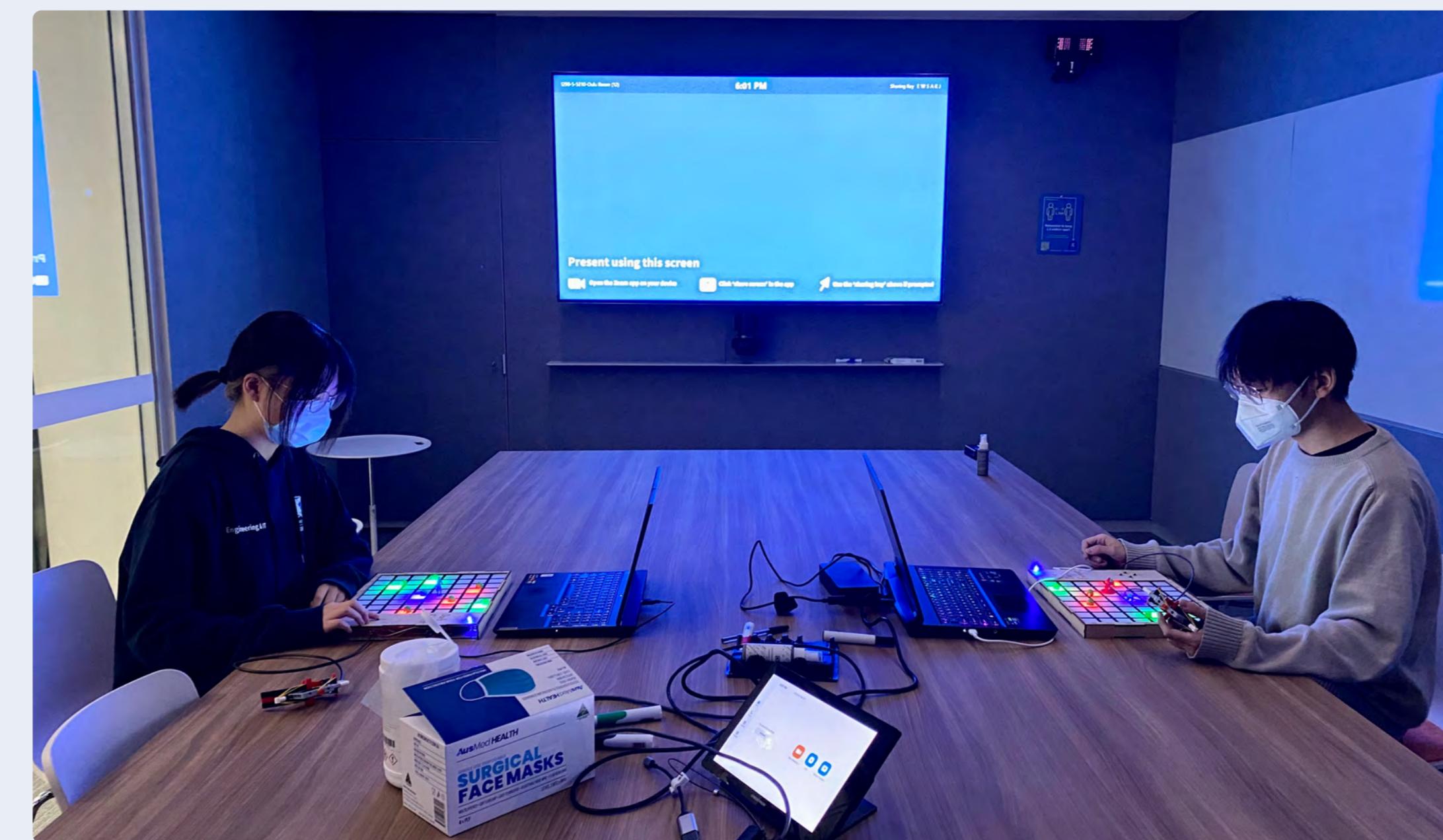
*Remote Play Simulation*
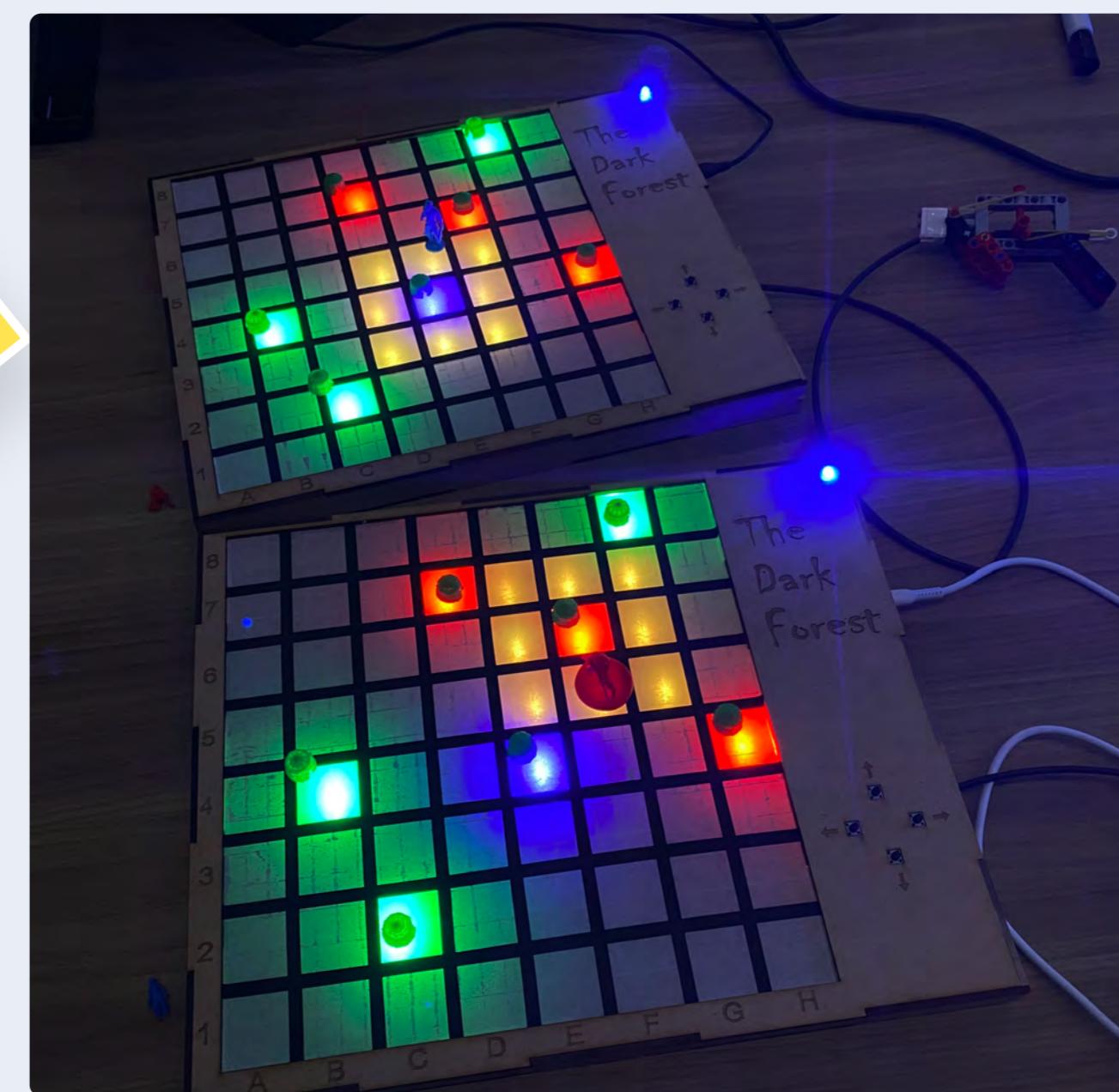
Visual Effect

The Dark Forest

We built 3D printed tokens and physical game boards with led strips inside. An interactive "gun" is connected to the gameboard. Game can be setup remotely through Arduino and MATLAB to proceed with one player's inputs from his board and present the corresponding outputs to another player's board.

Players can simply connect their game boards to the computer, wear on headphones and run the game at the same time with distanced friends.

Treasure Hunter

We built RFID-tagged cards with modularized RFID readers and gesture sensors. The system also provides sound and visual effects using audio amplifiers and LED strips.

Players can simply turn the device on and play the game with another distanced player!
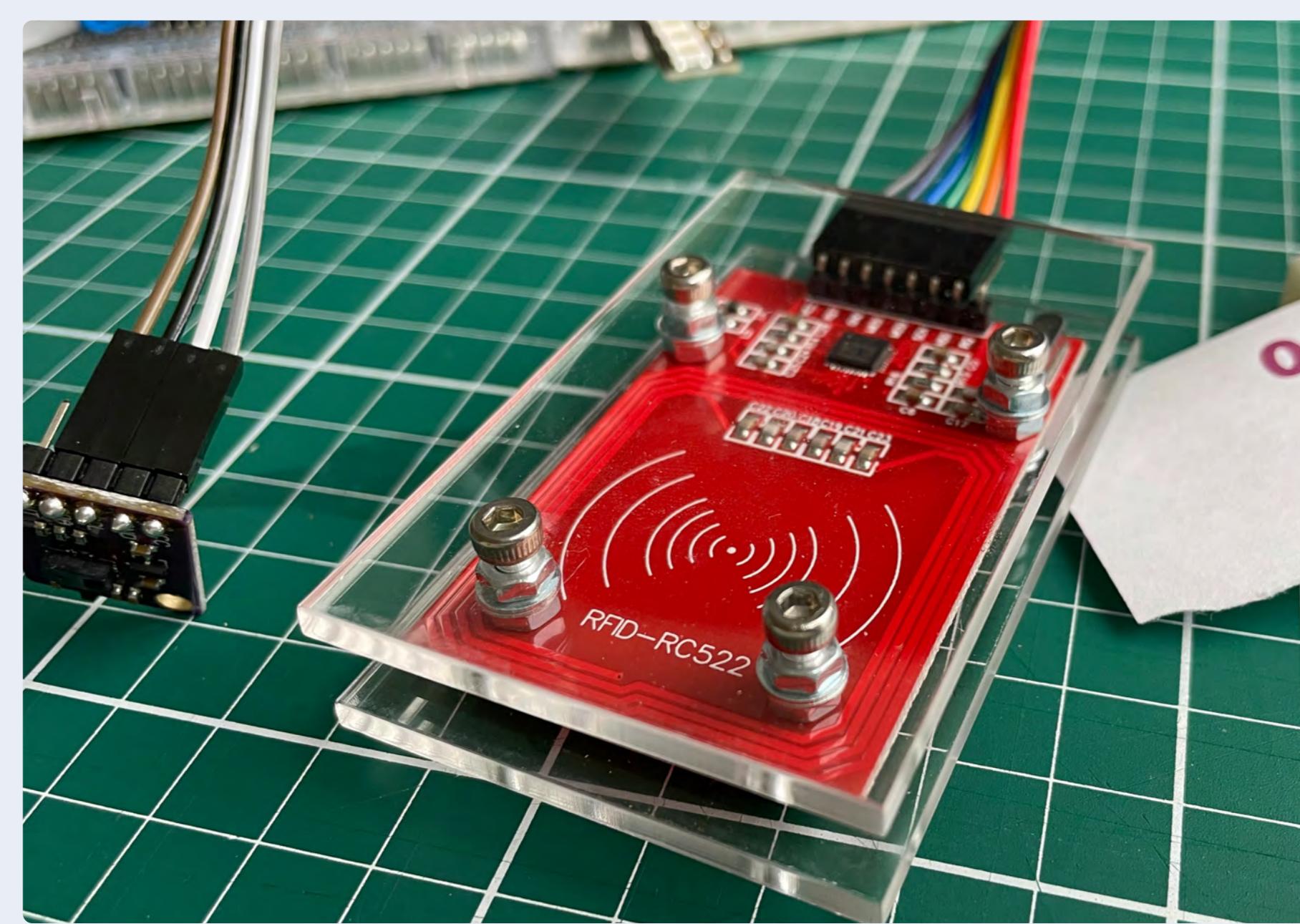
Modularized Components
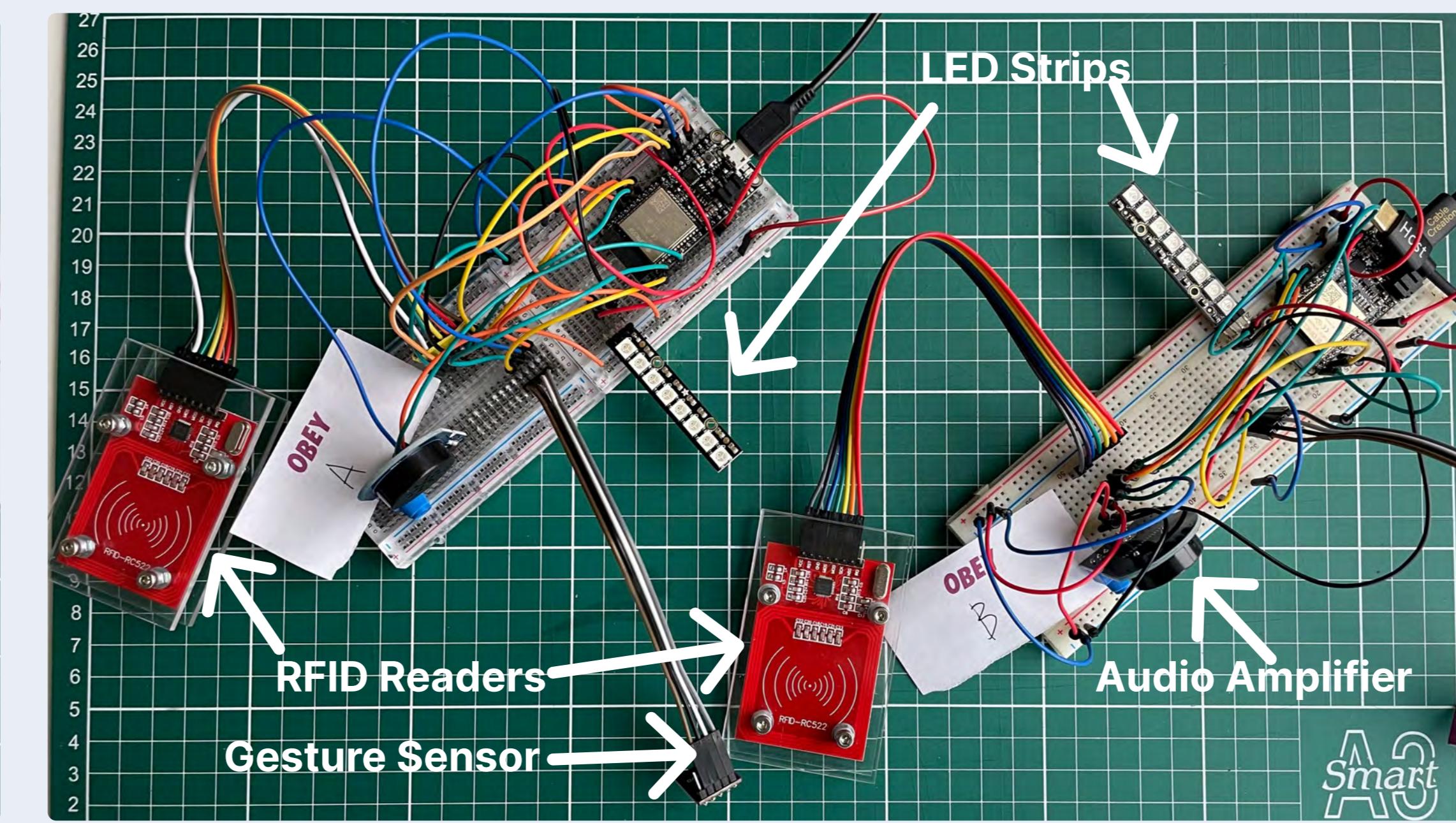
Product View

RFID-tagged Cards

Gameboard