

The Small Computing Group - Project Documentation

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Project Name: The Haptic Maze

Abstract: “The Haptic Maze” is an innovative game experience where the player has to get to the end of a maze through haptic feedback received on a game controller. The game was developed in C++ using the Umfeld library, it runs on a Raspberry Pi 4 and uses a Battletron controller. Particularly, the controller provides light vibration when the user walks, and a strong longer vibration when they hit a wall. The game features three modes: an easy and hard mode for a single player, and another one for two players. In the easy version, the player can see their position in the maze, but not the walls, while in the hard mode, the player can only base themselves on haptic feedback for finding their way out. In two player mode, everything is visible on screen: one player is supposed to not look at the screen and ask to the second one, who is looking at the maze and the user traversing it, for directions. The application also features a leaderboard, where players can see their results compared to previous players or attempts. Overall, the application was a successful experiment for an innovative approach to haptic feedback in games.