

Space game

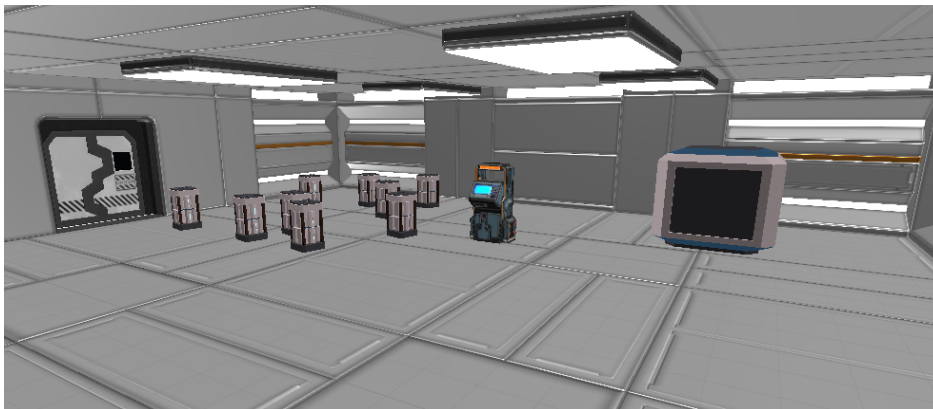
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Assignment 2 // Game Dev // COMP30540

The game involves the AI co-learner guiding the player through a series of math challenges, posed as word problems. I wanted to focus in particular on the word problem aspect of it, as I feel like that is an important skill to teach.

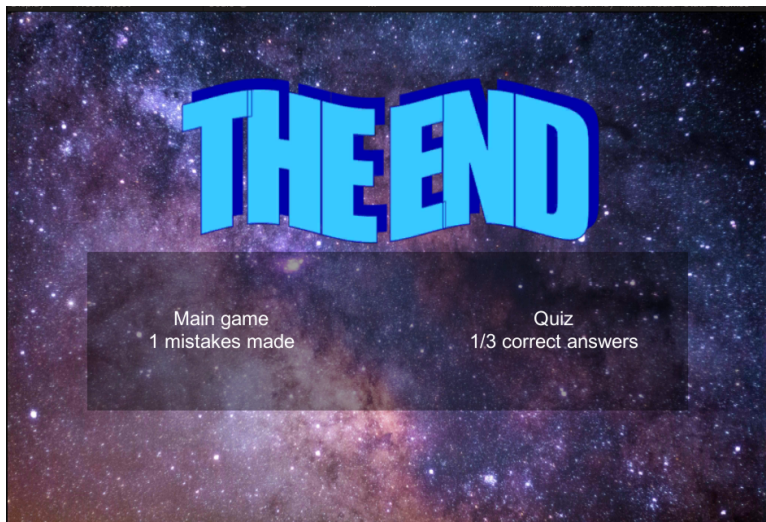
Chamber one is mostly empty. It contains the co-learner SAM moving into view, and introducing the player to the scene and how they can answer questions (by interacting with the terminals). Providing the correct question to each terminal will unlock the door to the next chamber and make SAM start moving to the next room.

Chamber two (the battery room) has several loose batteries and a crate “containing” several more. When the player walks in, the voice clip that introduces the scene and corresponding question is played. The question asks the player how many are there in total (posing an addition question). If the player answers incorrectly, SAM says so and encourages them to try again. If the player gets it wrong more than once, SAM will also give specific advice that relates to the current scene. (The batteries and crate are also loose rigid body objects that can be pushed around by the player.)



Chambers 3-5 behave much the same way. The props aim to help the player answer the questions, and get them to relate math to the “real” world. (Chamber 4 (break room) also has loose rigid body objects that can be pushed around or jumped on).

After chamber 5 the player uses the final terminal for a quiz with harder questions. These questions combine at least 2 different mathematical operations and are posed as word problems as before. (SAM will stop the user from submitting without filling out all the fields). After the quiz, the end game screen is presented with the score the player got on the final quiz, as well as how many mistakes the player made during the main game.



The game has full support on android (tested on a Samsung Galaxy A50) with corresponding controls (Virtual joystick and button). These controls are disabled when on Windows.

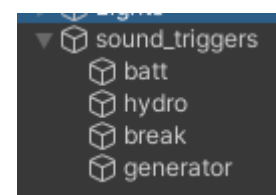


The control scheme displayed on the start screen also changes with the platform



Other features:

There are sound triggers for each room, which are used to detect when a player enters the room so it can play the intro voice clip then.



Each terminal (bar the last) has doors that open when the correct answer

is given, to ensure the player answers them in order.



The player can jump (although this is not necessary to beat the game).