CS7038 Group B

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1 Main Themes

Figure 1: Player character

In our game the player controls a maintenance robot on board a spaceship on a long journey. While on the journey the ship malfunctions and begins shutting down, the whole crew are in stasis and it is up to the robot to restore power.

The player must traverse the ship, reactivating components and lighting the ship up in the process. The gameplay takes inspiration from exploration based platformer games such as spelunker.

2 Gameplay Mechanics

2.1 Level Generation

The game will use elements of procedural generation to create levels. To do this, first a grid of *rooms* is created as shown in figure **??**. A random position on the top of the grid is chosen to be the starting room. From here there is a probability of stepping left/right or down. If the stepping algorithm reaches a wall it will automatically step down. At the

bottom of the grid the probability of stepping down is replaced with the probability of creating a level end.
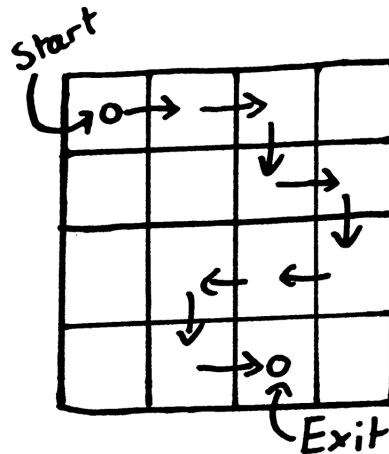

Figure 2: Solution path generation

After the room grid is created the individual rooms are populated with pre-existing room tiles. To get a basic version of the game running only the four room tiles show in figure **??** would be needed with solid rooms for the rooms off the solution path.
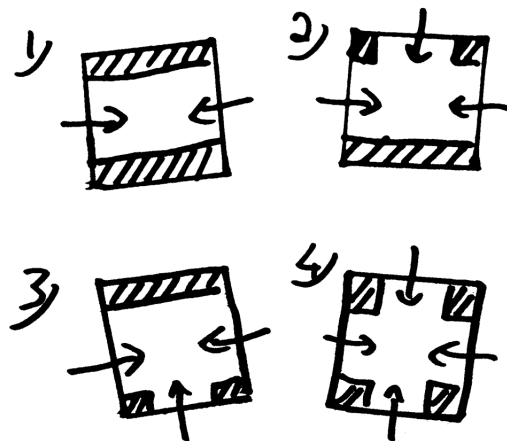

Figure 3: Basic room tiles

Individual rooms will be tile based and will be stored in text files which the game will read in and then populate.

3   Admin/Planning

sprints and stuff