

# Phase 4 report

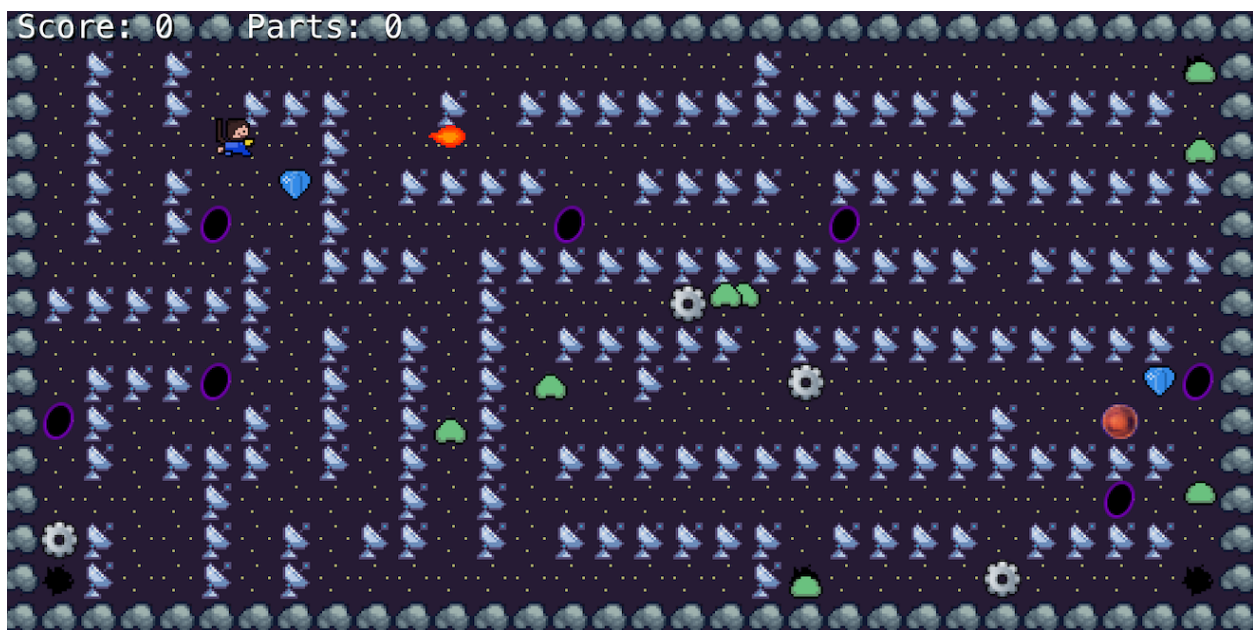
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## Tutorial:



The picture above is the start screen. There are three options in total, game difficulty, game start, and quit the game. Game start and quit the game through the w and s keys control. Game difficulty is controlled by the number key 123. After all are selected, press the Enter key to enter the game.



The picture above is the game interface. Capture diamonds to increase the score.

Parts shows how many gears the player has captured, and once the gear captured is enough to pass the level, the red closed door will become a blue open door.

Touch it and you will win. Each difficulty level requires a different amount of gear.

Note that must not be touched by aliens (monsters), which will lead to the failure of the game. But we can avoid the aliens by controlling the player movement,

WASD keys. You can also launch fireballs, spacebar, to kill the aliens. In the game,

once the player approaches the aliens, they will turn red and speed up to track the

player. We have also added a pause interface. Players can press P to open it. In

addition, we have added diverse game sounds. It improves the player's gaming

experience.

## The Game:

The diagram on the left is the original UML. Before our project started, this was the expected project architecture. The diagram on the right is the UML when we finished the project. obviously, the richer class meant that we added a lot of new ideas. But the general framework we based on the original UML. We are improving on the original UML. For example, the projectile class is an idea that came to us in the middle of designing the game. Adding to the playability of the game.

