# Prospector Jasper

By: **Amanda Coler** and Jason Skillman



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# Game Description

## High Concept Statement

Prospector Jasper is a Pixel Arcade Maze game that has the user playing as a character named Jasper. The game takes place in the ground, digging through the soil to collect resources, power ups and fight monsters to increase your points to get to the number one score on the leaderboards. (Goal)

## Genre

Pixel Arcade Maze Game

## Target Audience

Ages eight and older, all genders

## Target Platform

PC

## Development Platform

Unity

## Target Rating

E for Everyone

## Length of Play

Generated Infinite Levels



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## Game Mechanics

1. Digging:
    a. Player will dig tunnels underground to get to where they need to reach enemies. As player digs blocks, the blocks will disappear, leaving a tunnel behind. Players will also be able to mine rocks and receive ore and power ups from rocks.
2. Boomerang:
    a. When player attacks, the pickaxe will do a boomerang affect. The boomerang will be thrown to the enemy then bounce back to the player. The Boomerang can also bounce off a wall and come back to the player.

## User Experience + User Interface Problems

-Console Gamer
-Used to Controller
-Bigger Screen

Might have a harder time with PC Controls

-Color blind
- Deaf

May not be able to see certain colors

- Epileptic

Earthquakes in game may not be suitable for John



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# Technical Limitations

- Have to use the mouse to press the buttons since the main menu is the tutorial screen, which you would use the arrow keys to move the player
- Using a computer for an arcade game – doesn't give it the same feel as if using an arcade machine
- The only computer the game can be played on is a windows computer. The file does not work on Mac and Linux, so it is then not available to all players.
- The game can only be played in the resolution of 1920 x 1080 because we did not program the game to minimize due to the choice of canvas size for the game.
- The vanity screen that unity provides for the game can interrupt the fast game play we wish to provide for the game.

# Player Types

## (How different player types can affect the gameplay)

### The Achiever: (They wish to receive all the achievements in the game, gain rewards, increase score)

Achievers who play Prospector Jasper would feel relieved that there is a leader board in the game. The achiever would feel happy with every point gathered (from gems, ores and monsters). I feel the only thing the achievers would have a hard time with is the fact that there are no real… in game achievements that let the player feel like they have completed the game because there are no quests, just infinite levels. I feel the only thing they really have to look forward to is gathering power-ups and getting a high score to make it to that number one on the leaderboards.

### The Explorer: (They wish to explore the whole game)

Explorers who play Prospector Jasper probably would have a great time playing the game. Since the game is a maze arcade game (similar to Dig Dug) the area will be fun to explore and as you proceed further into the ground, the light fades and you only have the light from your mining helmet. This drives the player (in this case, an explorer) to explore all parts of the game through the darkness.

### The Socializer: (Players who wish to socialized with other players)

Socializers who play Prospector Jasper may not find the game appealing, because it is not a MMO. It's an arcade game. I could see how the leaderboards could start conversations but nothing really in the game drives the player to be social through an online interface.



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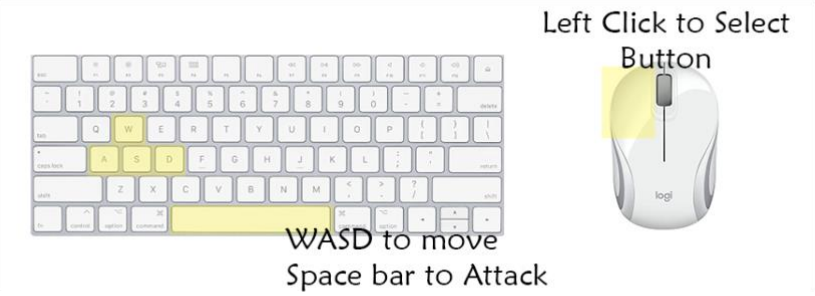
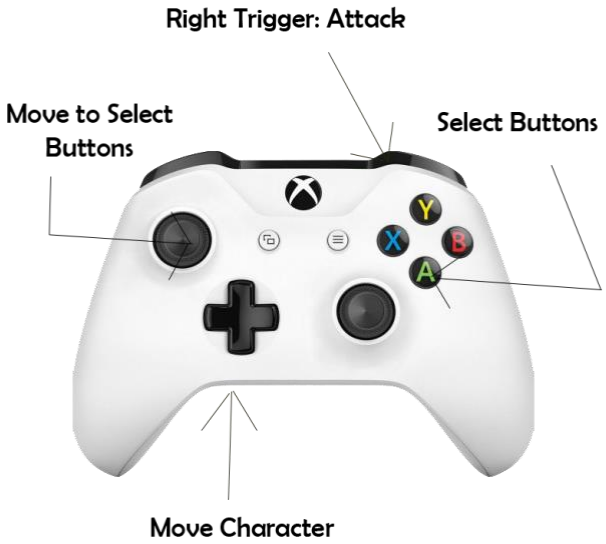
### The Killer: (Players who enjoy killing things)

Killers who play Prospector Jasper would probably like the fact that you can kill multiple monsters and they do make sounds and it makes it feel complete when the monsters are killed because you can only proceed to the next level if all the monsters are killed. I feel it could also get boring because there are only three monsters in our game.

# Basic Controls

## The controls for the game:



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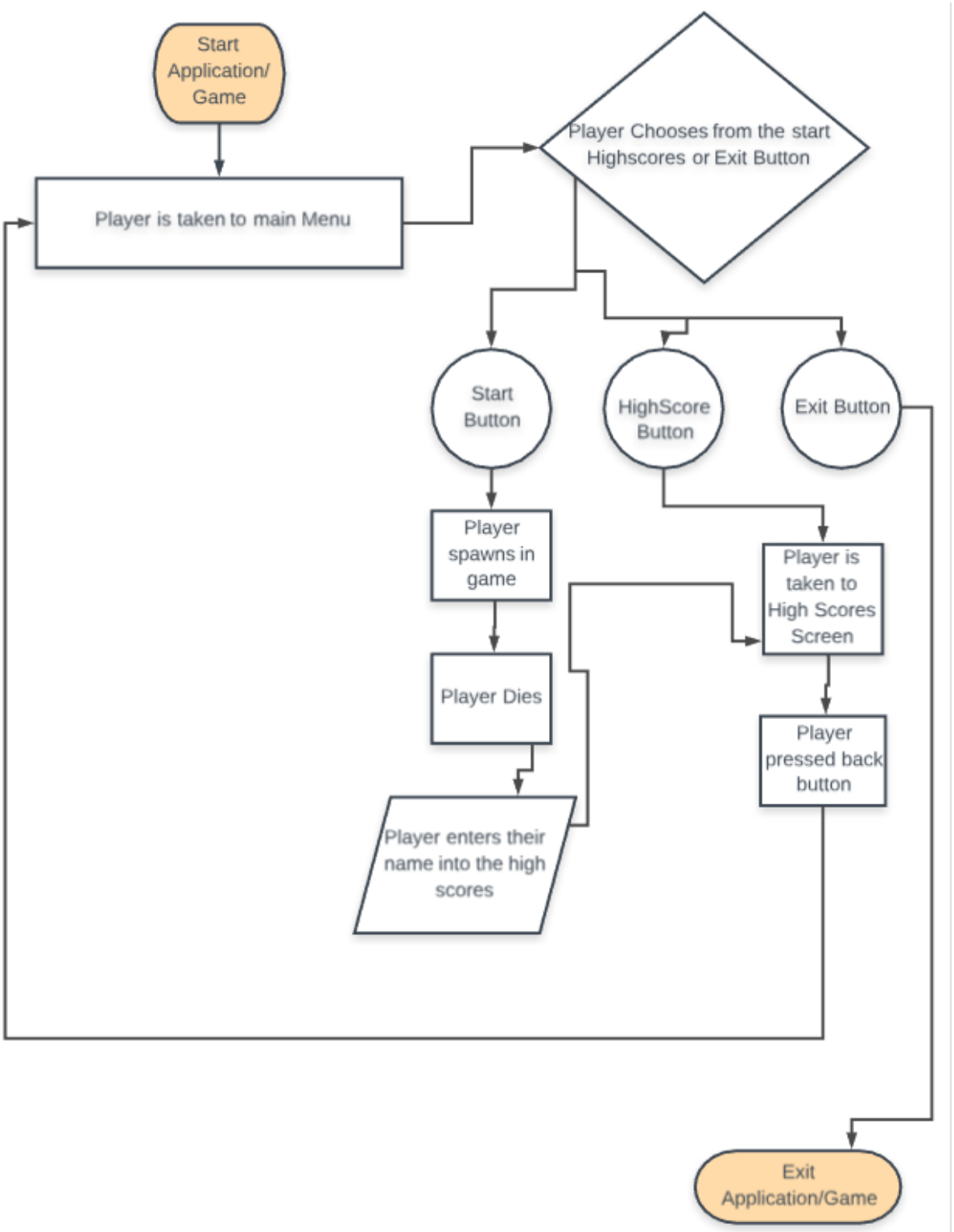
# Game Flow



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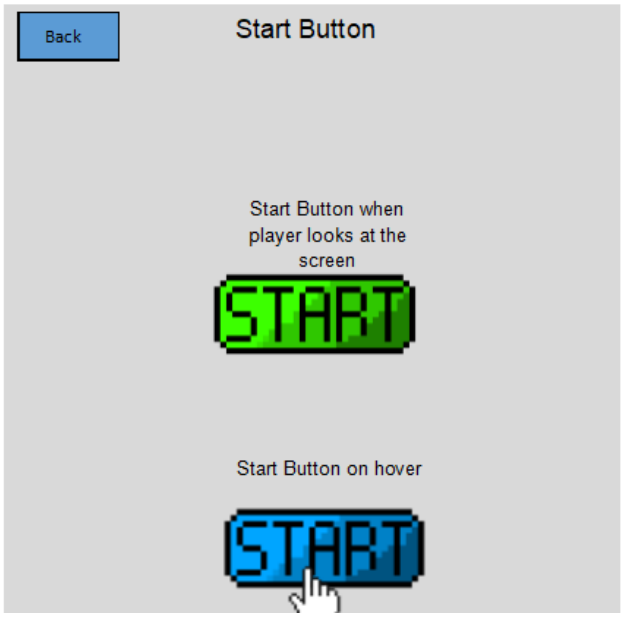
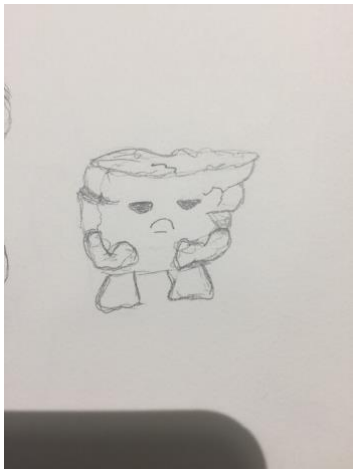
# Concepts

## Story-boards and Concepts:







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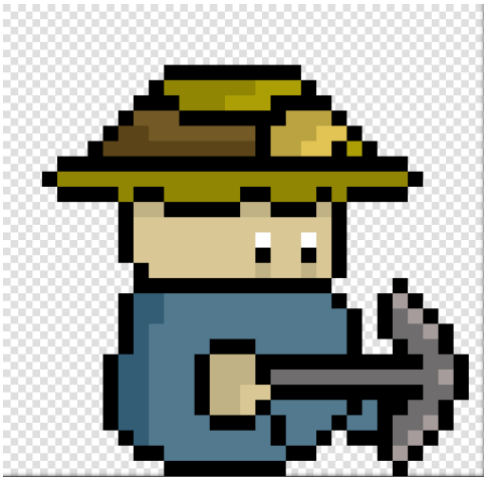

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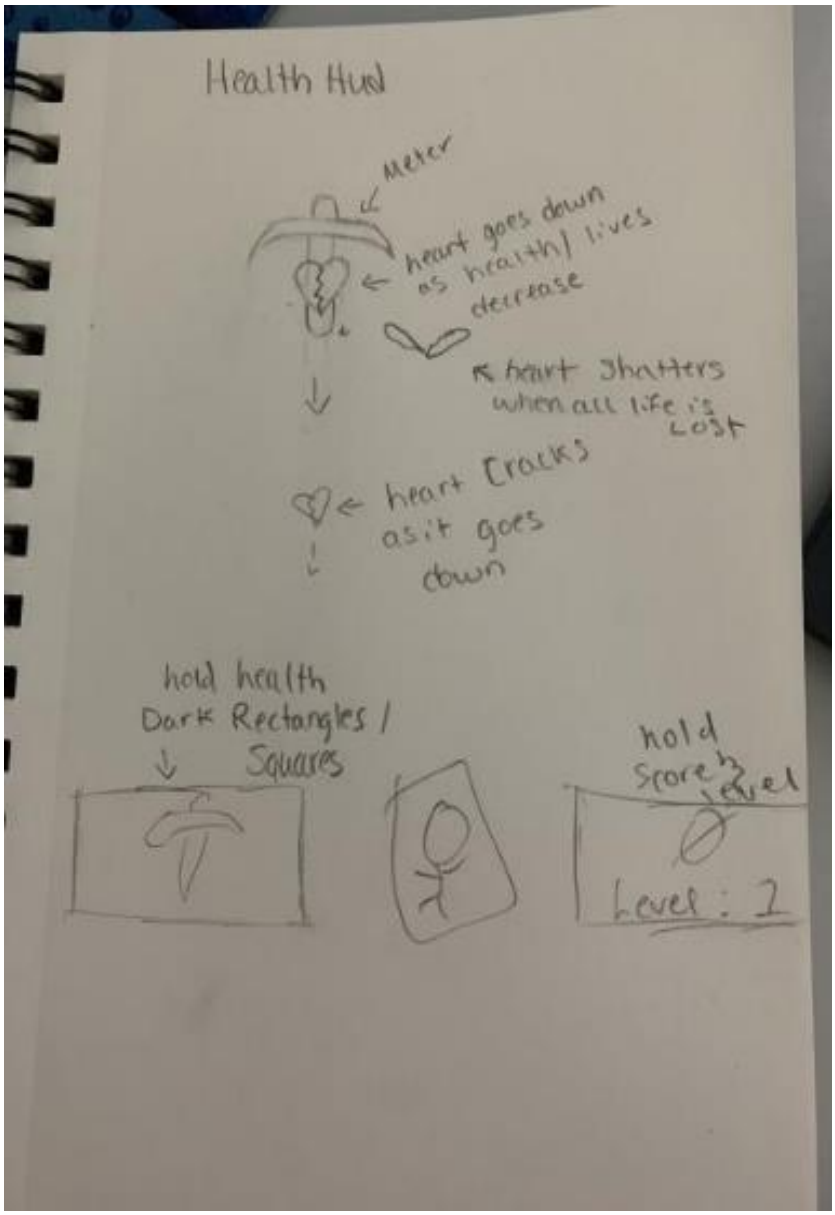




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# Prospector Jasper: Mechanics

Inspired by Dig Dug

Character can move up down left and right.

You must kill all of the enemies in the level before you can move on. Enemies will walk side to side.

Boulders will be scatered over the map and will fall on the player if under it.

You can attack with Spacebar. You will throw a pickaxe 2 blocks away and it will come back to you like a bomerang.

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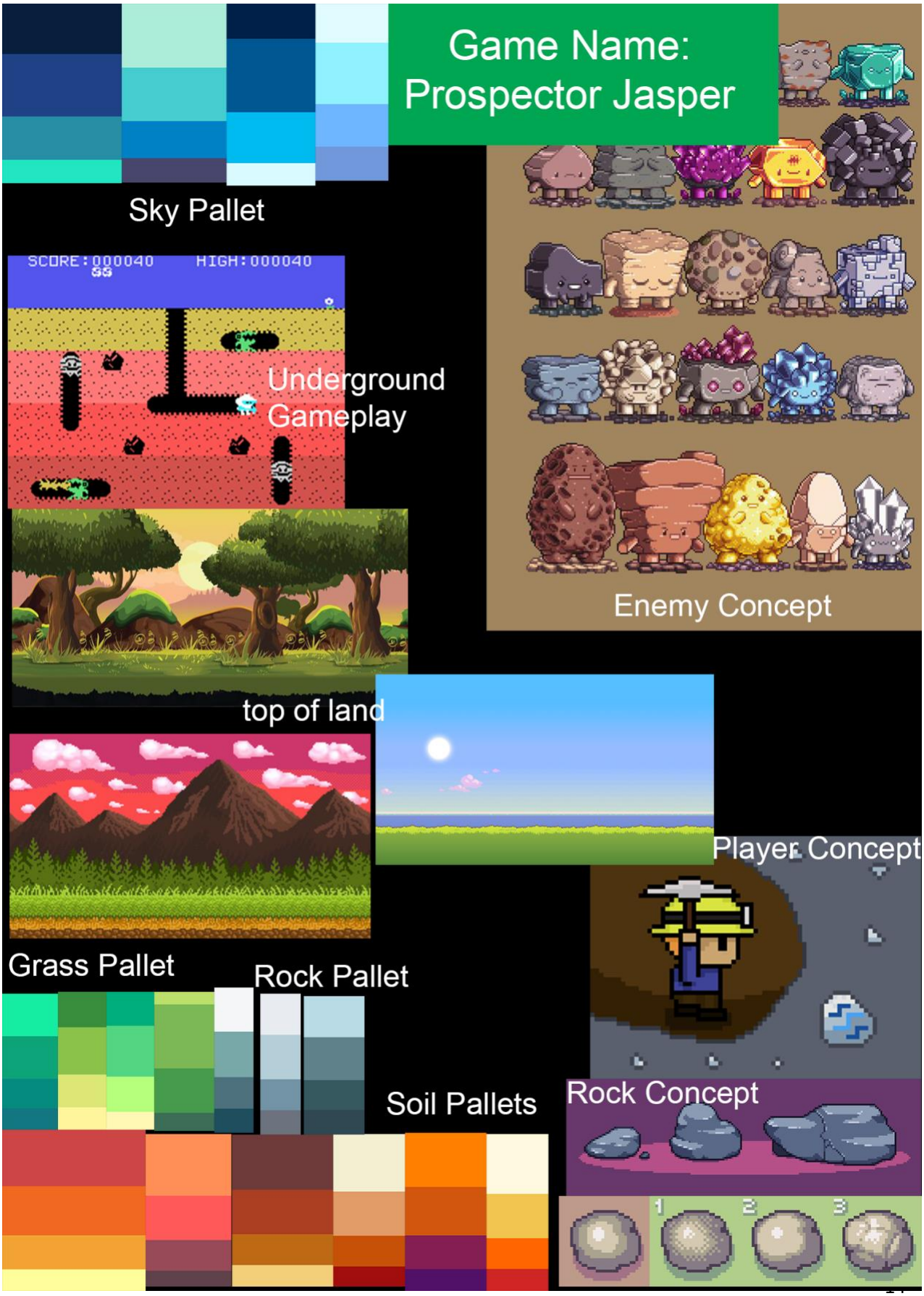


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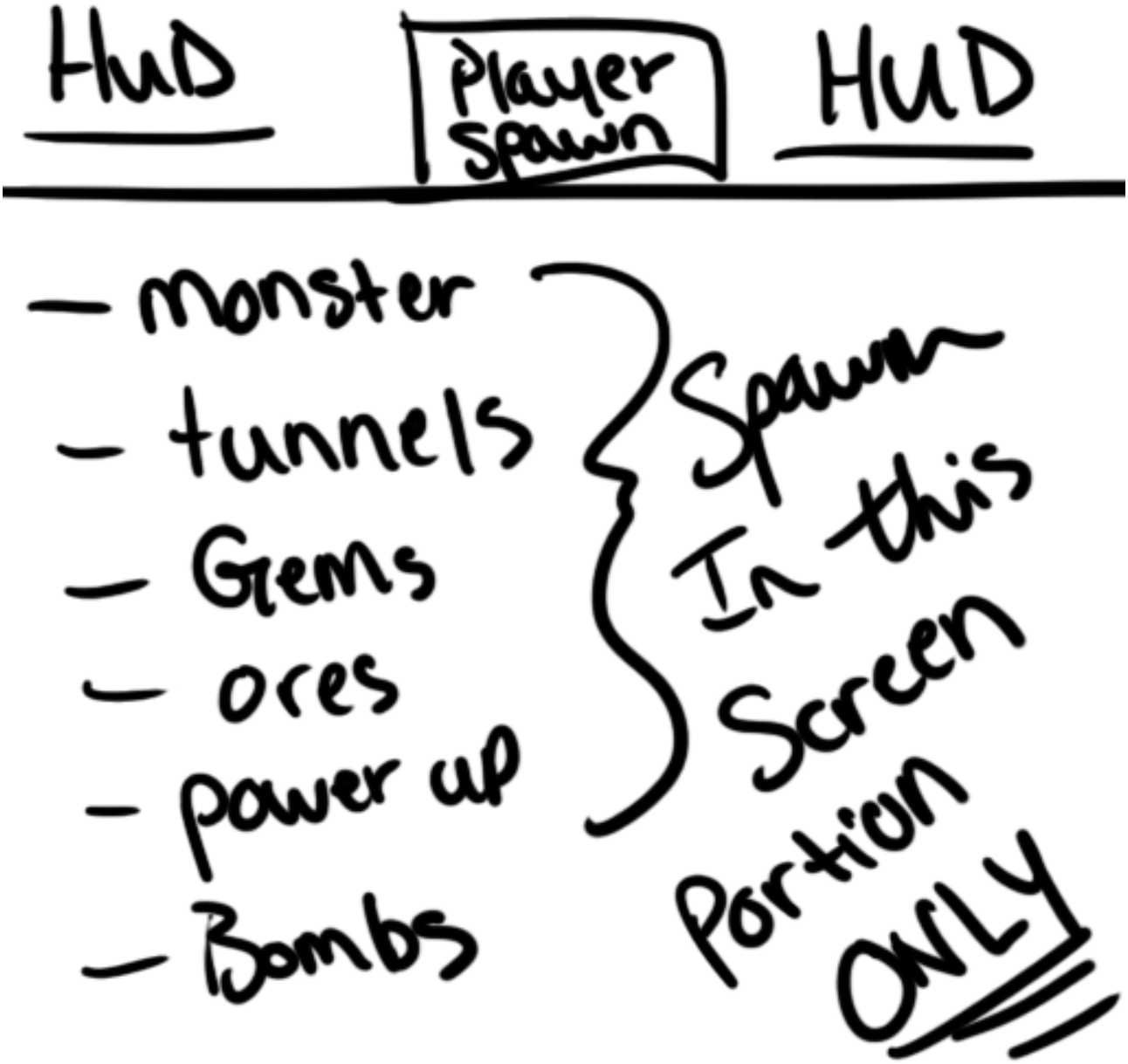




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## EARTHQUAKE

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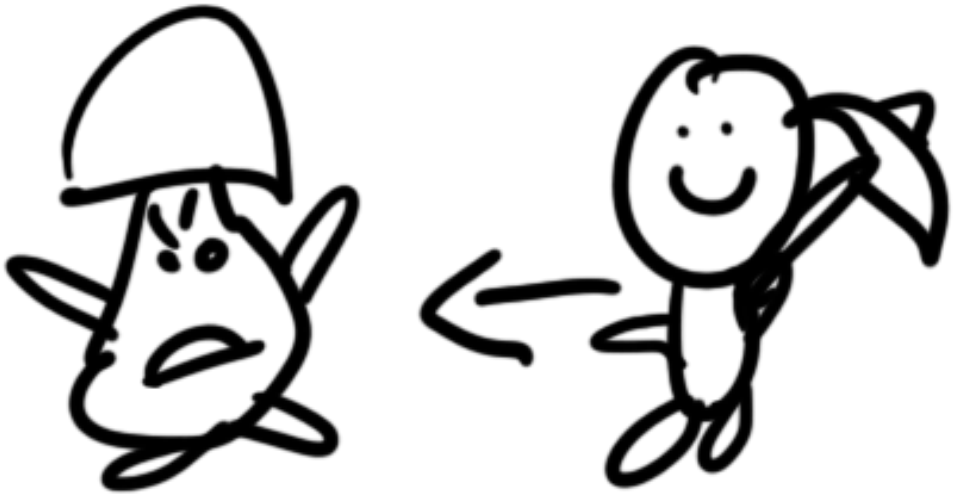

when player walks into Enemy health--;



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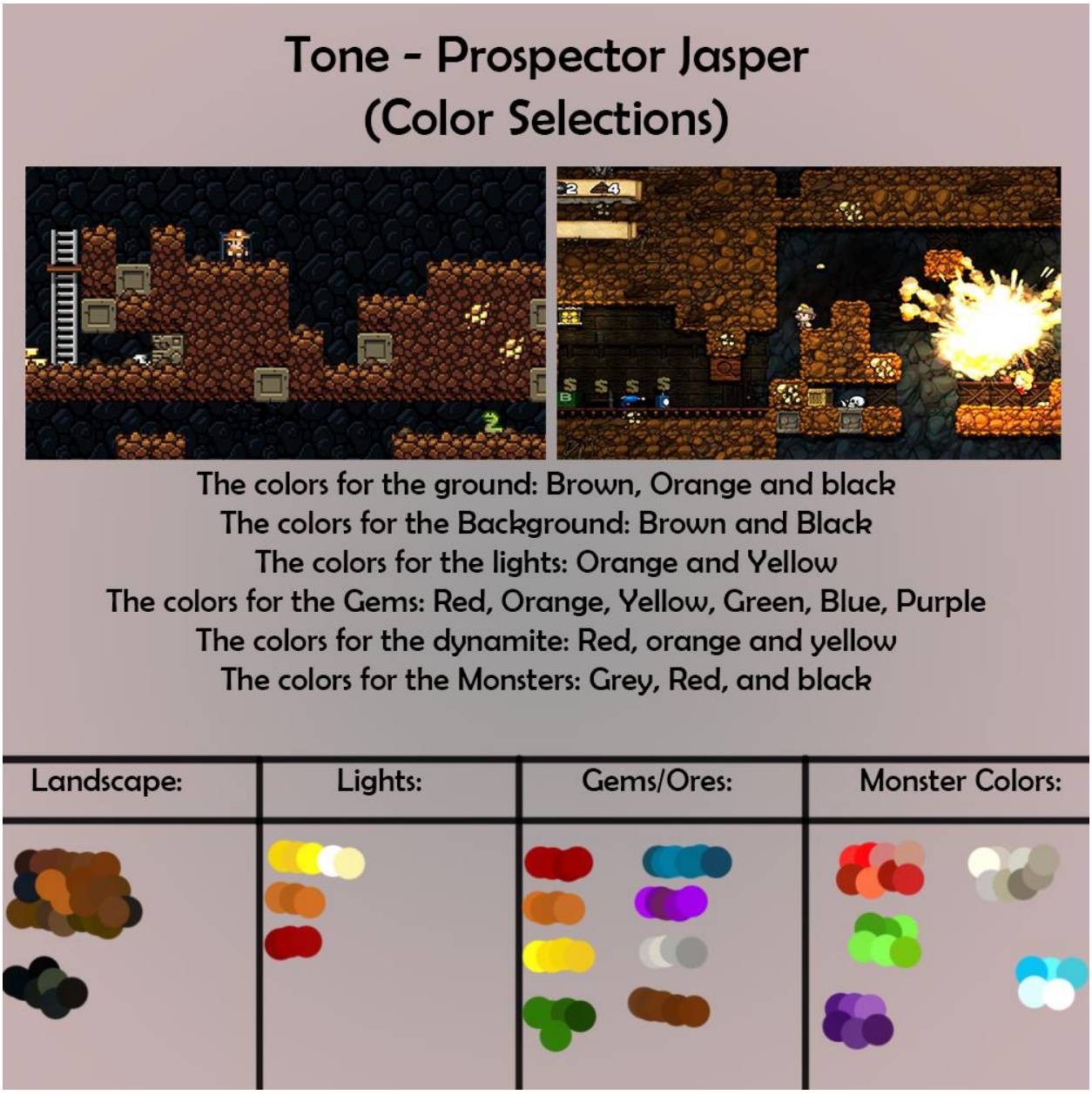
# Tone Mood Boards/Explanation




## Reasons for the Colors:

The reason I chose the color pallet that I have in our game is the fact that we are under the ground. You are in a cave, where there will be gems and ores to obtain. These colors should be more bright and vibrant to the player, so it feels like a reward and is noticeable. The lights are a brighter red, orange and yellow color to produce a light opacity to it. This resembles a light in a better way. The landscape will be brown and black because we are focusing on underground cave aesthetic where there are rocks and



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dirt. Monsters are the colors they are so that players can do and find them and attack them. The crystals on the quartz monsters are all different so there seems to be variety to the game.

# In Game Screen-Shots

## Prototypes:

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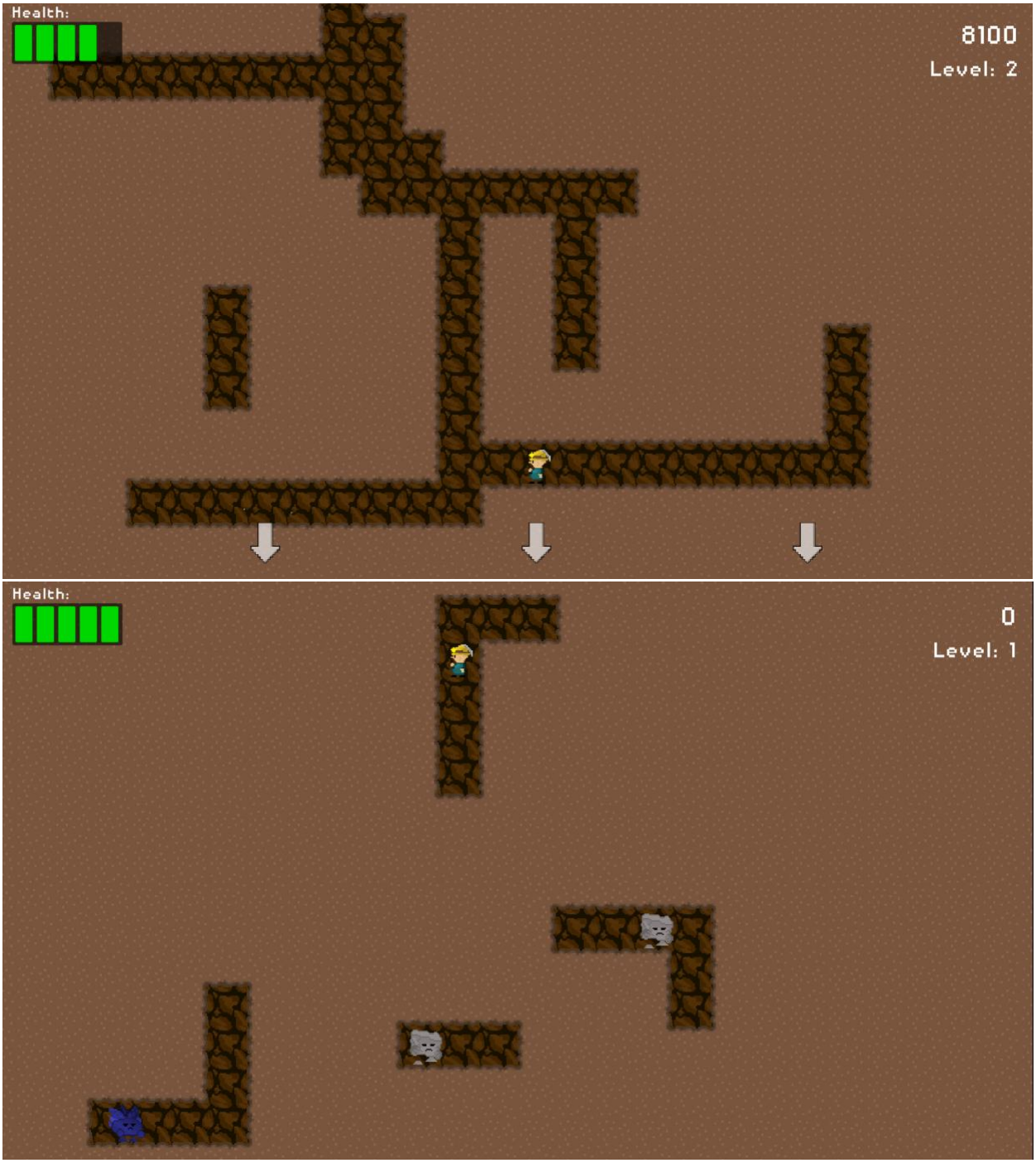




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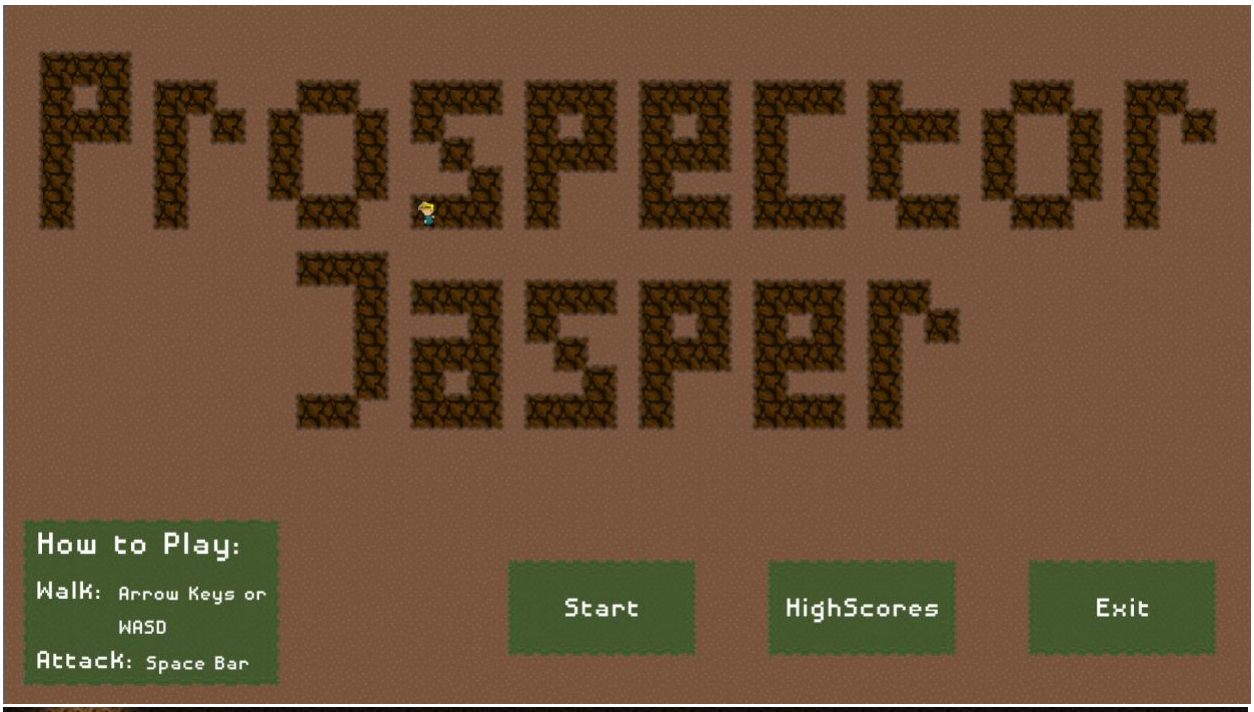


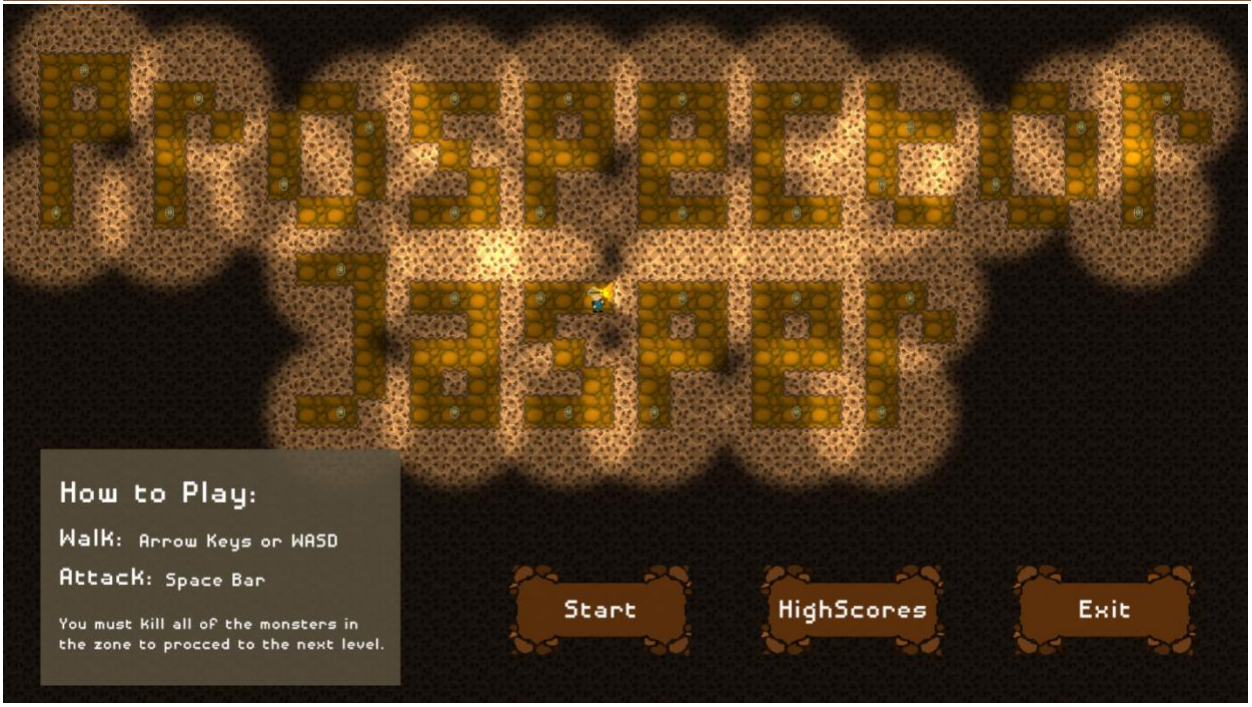




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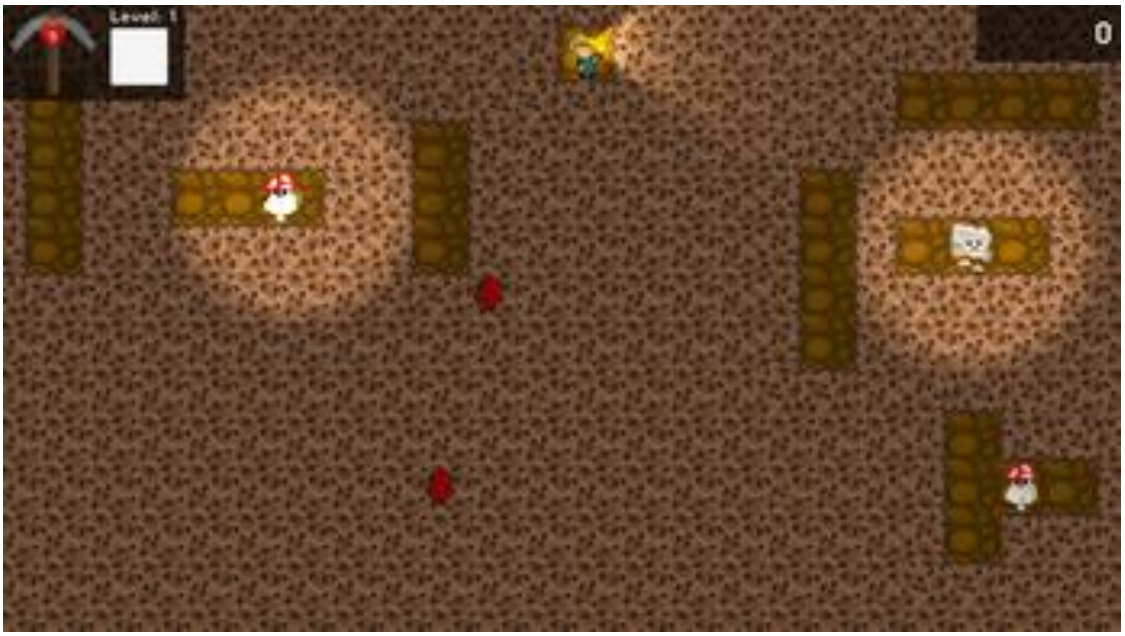
## Non-Prototypes:



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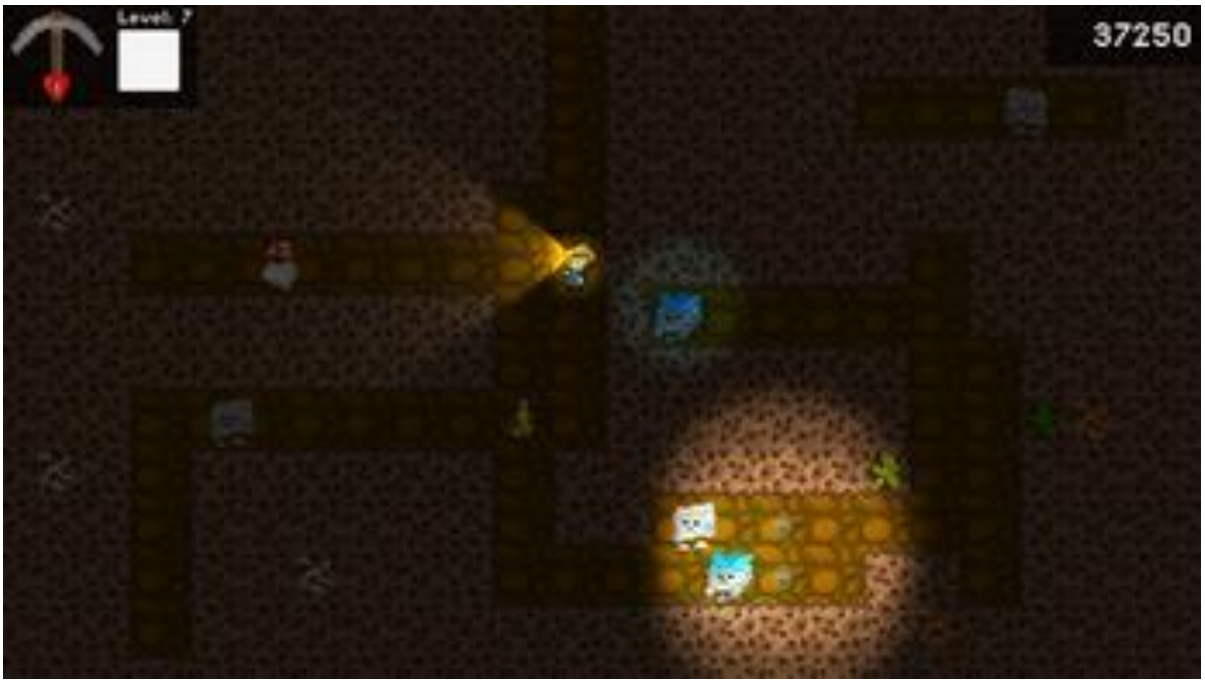


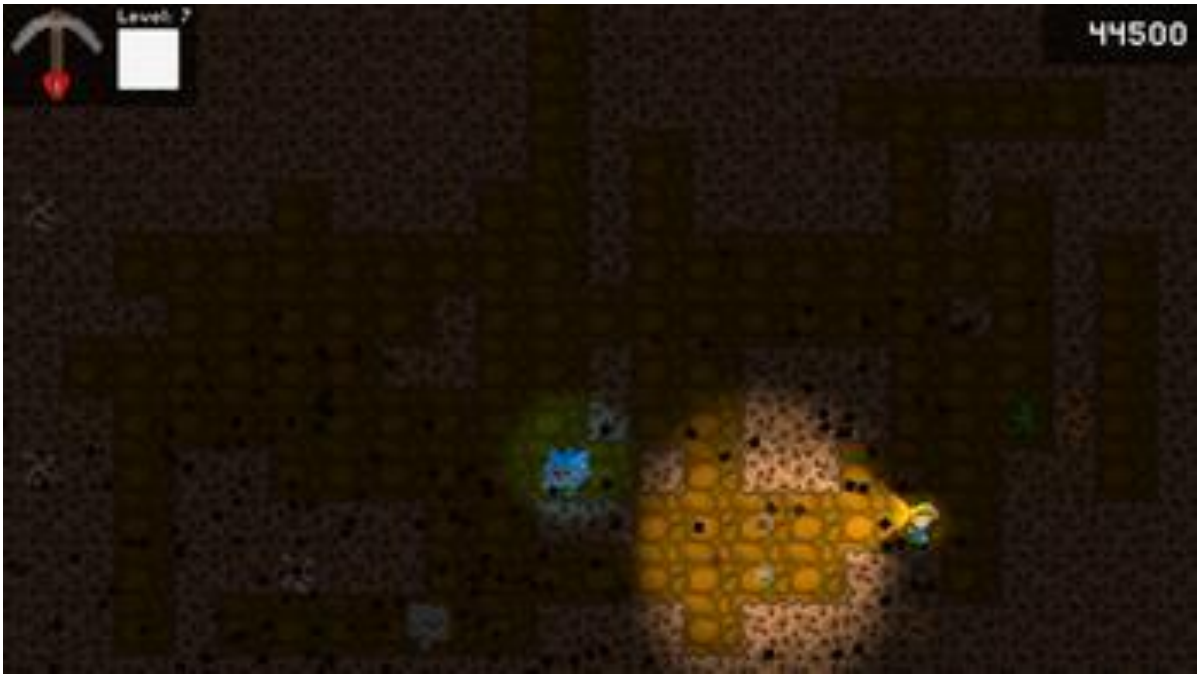




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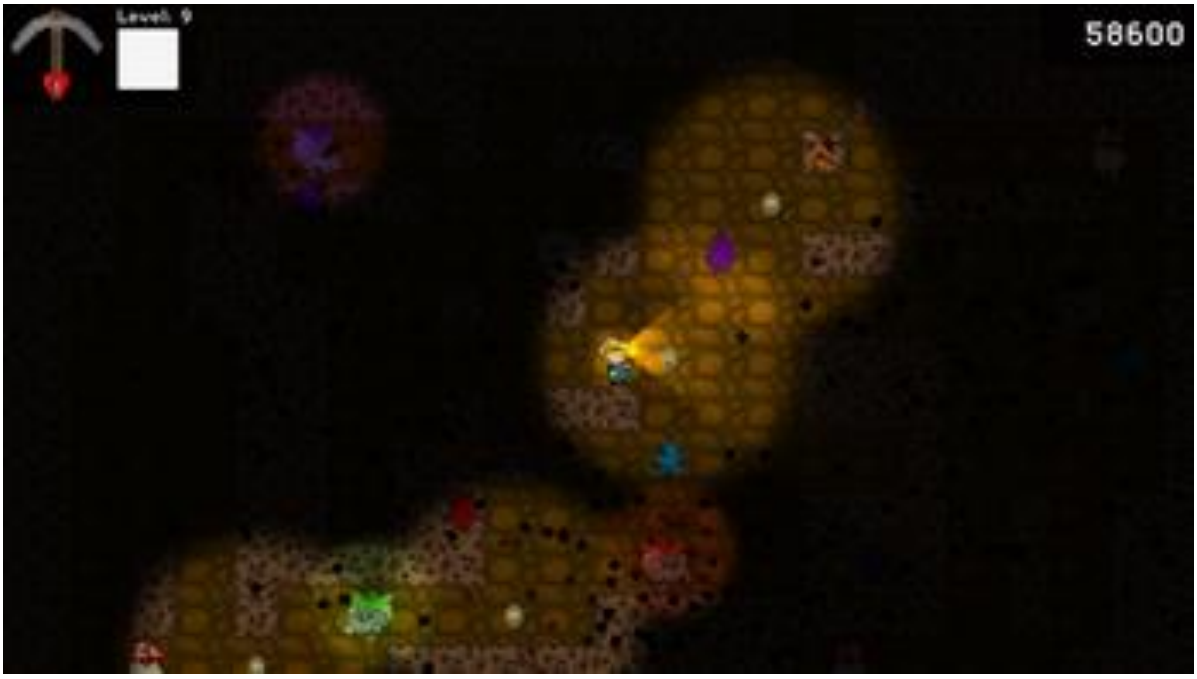




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## How the Game Screens Work:

### (MAIN MENU)

The main menu starts off with the camera focused in on Jasper (Player). The camera slowly zooms out and you realize that Jasper was mining out the title of the game. (Pictures shown below of transition)

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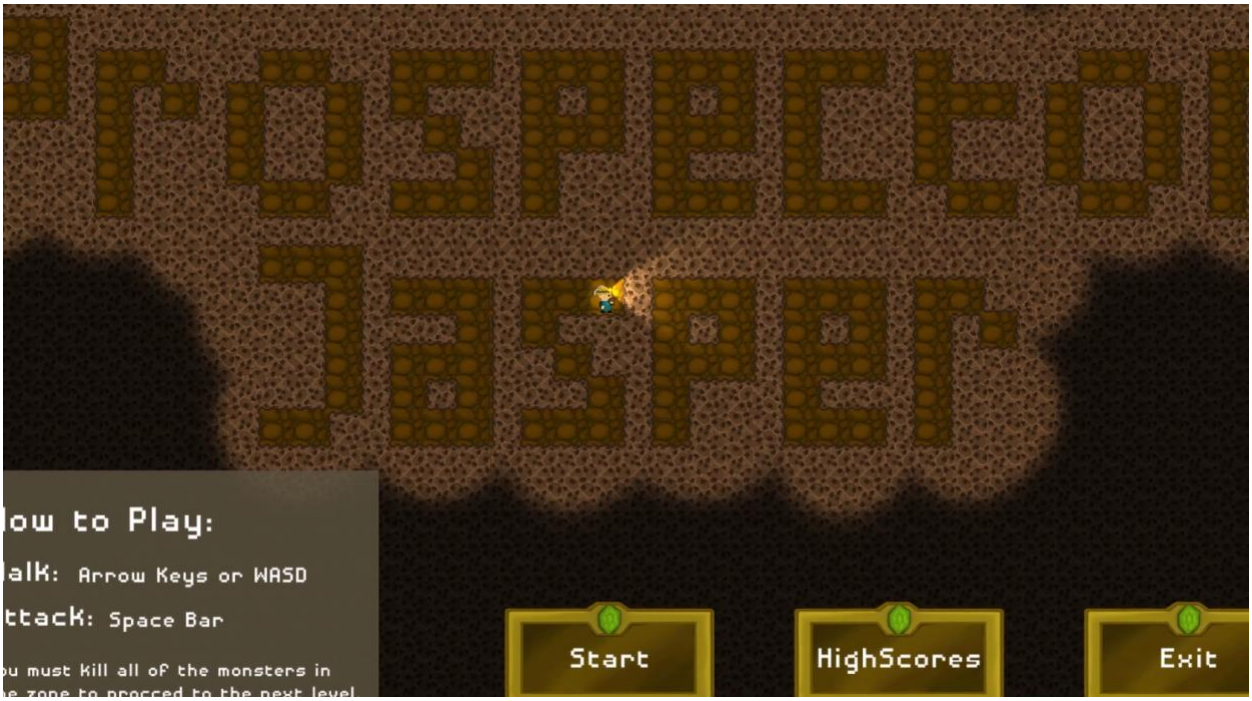

## (HIGHSCORES)

When the player has gone through four lives, the high scores screen will immediately open. The User can type in their name. The high scores will list the player name, the level they died on and the total score. (Pictures of the high score screen below)



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(OLD)

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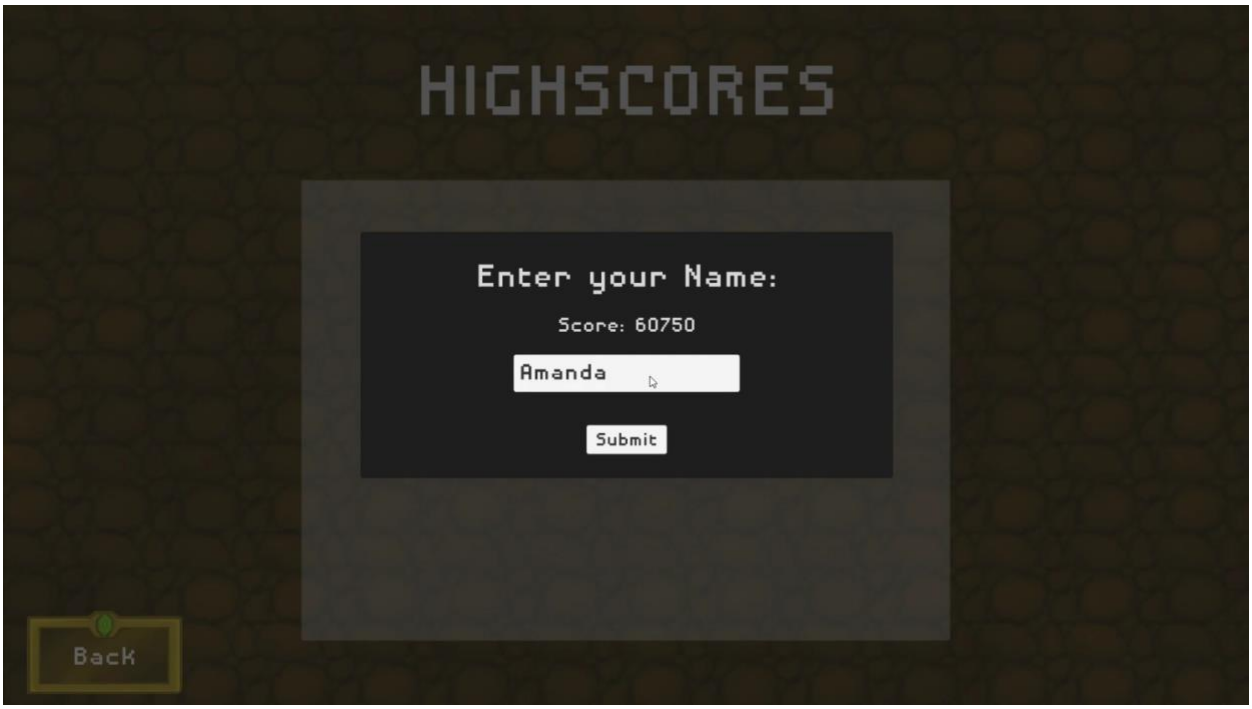
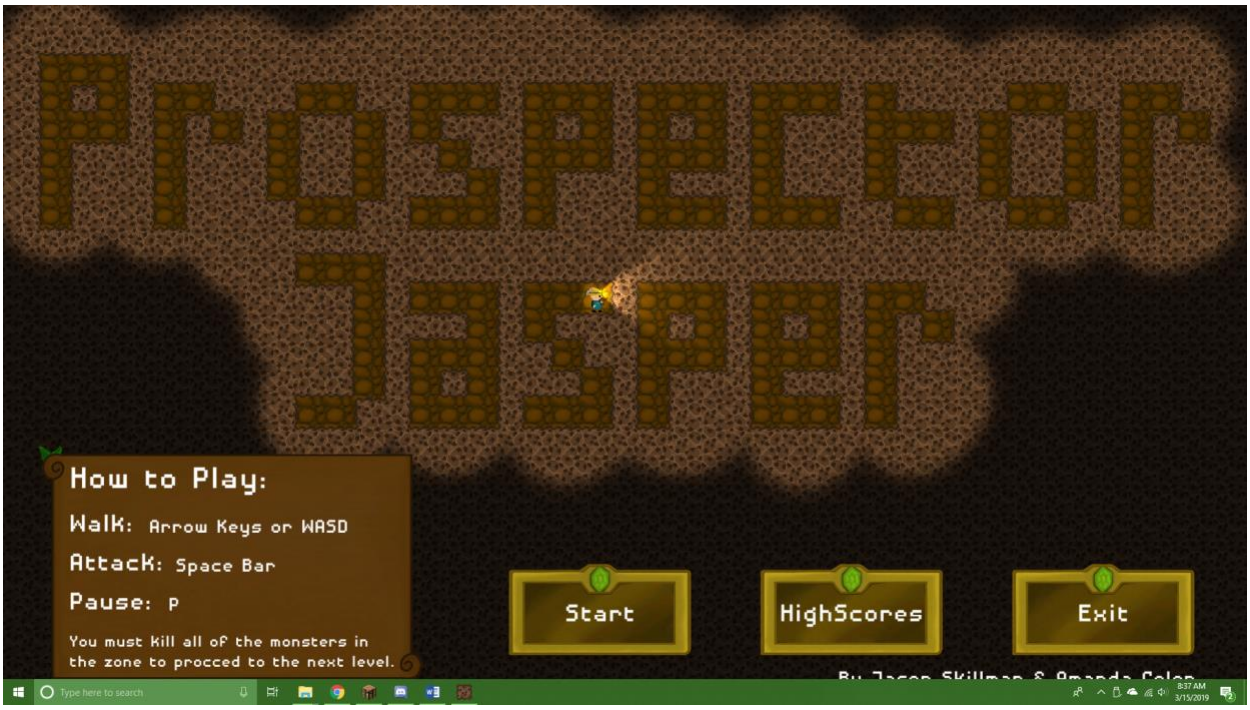



(In Game Currently)



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# Dimensions

UI

All assets are 32x32 pixel

**Main Menu:**

How to play

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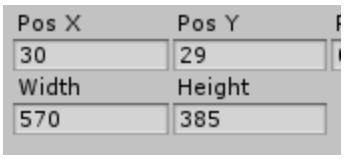


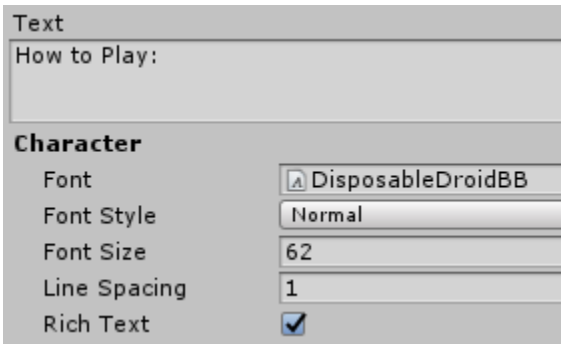


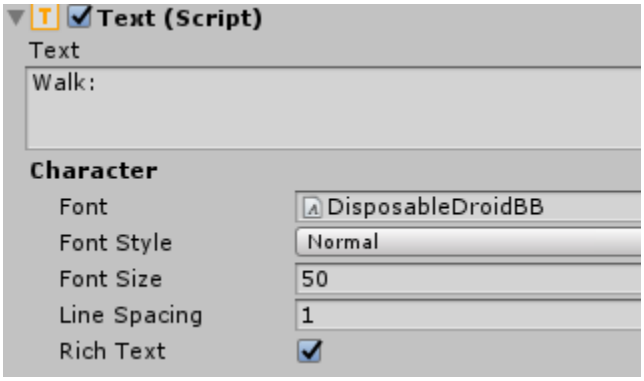


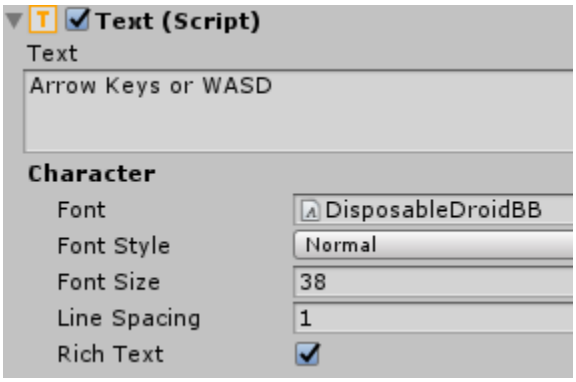


**Start button**

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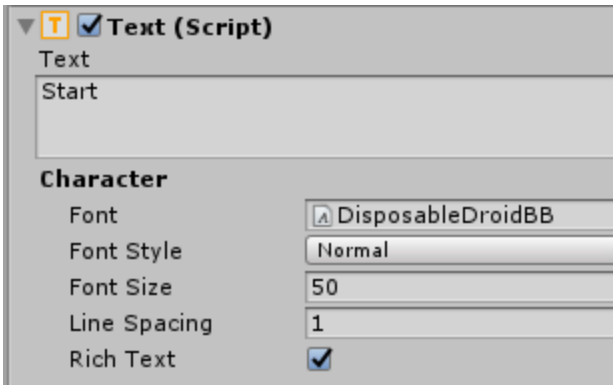
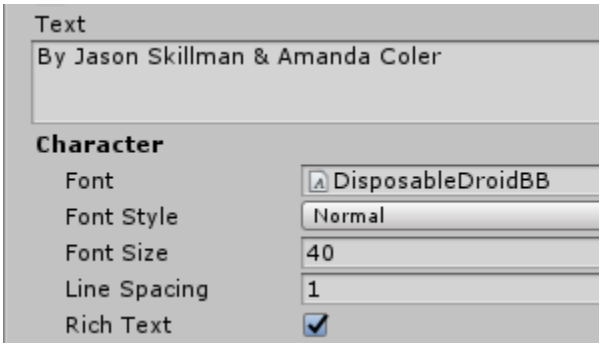
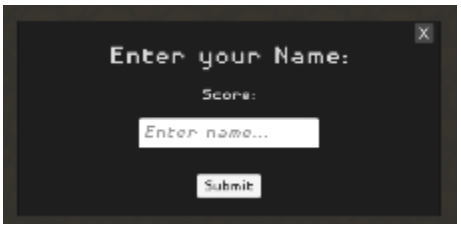



**Credits**




**High Scores:**

Input popup



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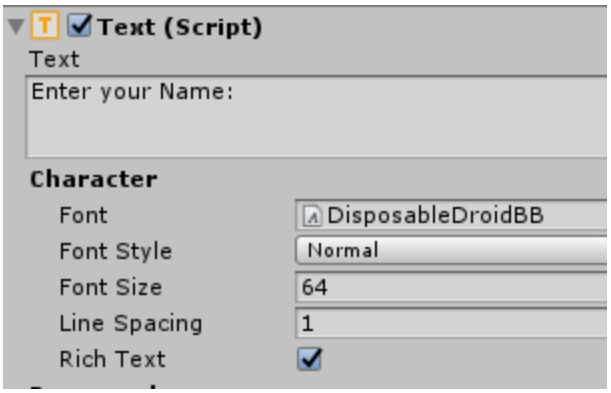


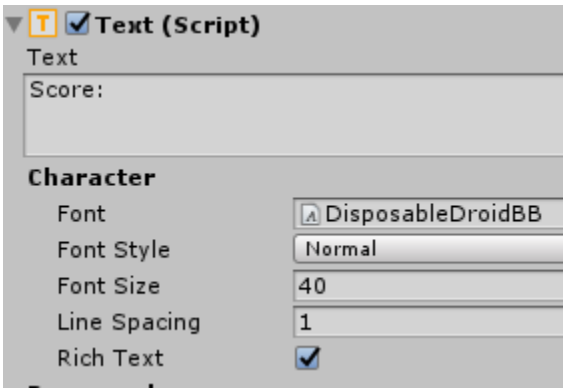




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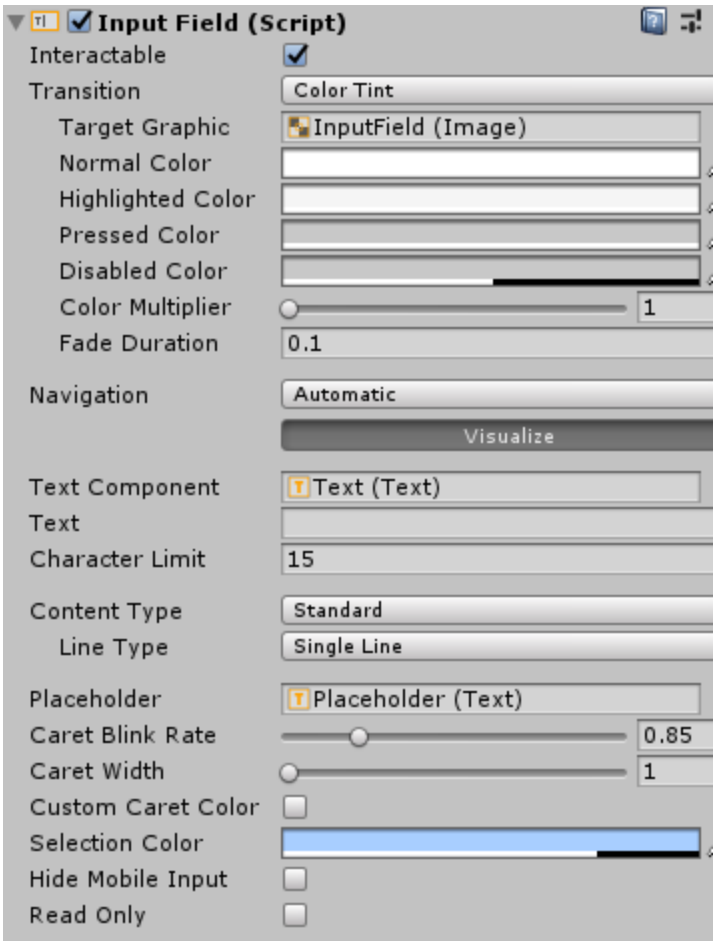


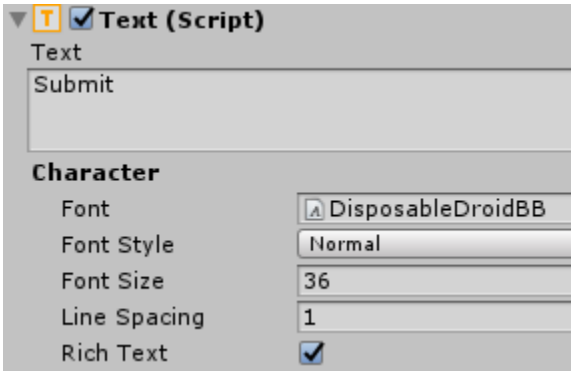




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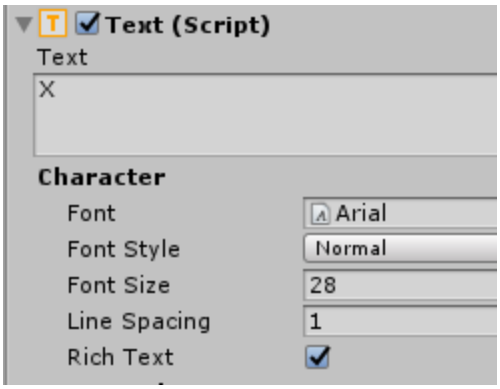
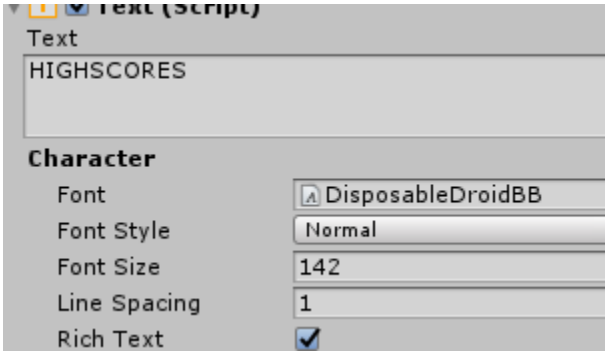
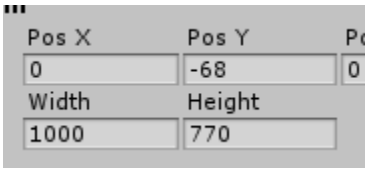


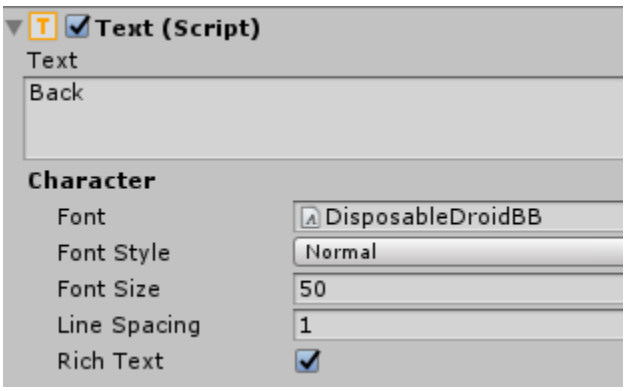

**High Scores title**




**Every Score profile**




**Back Button**



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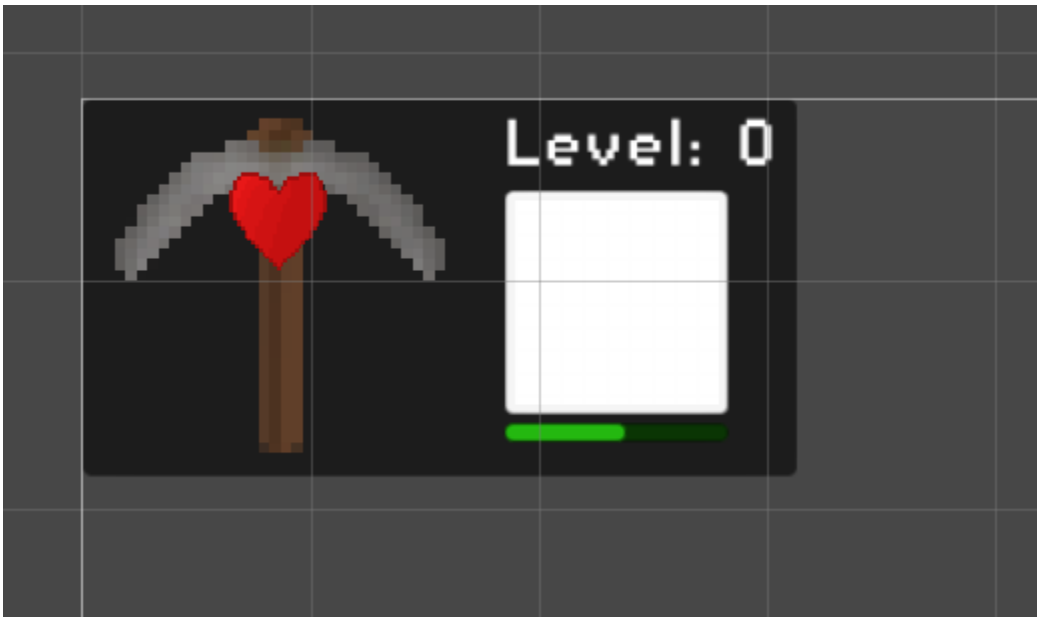
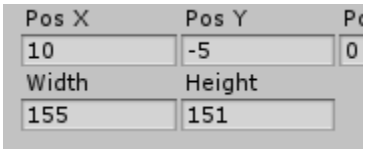
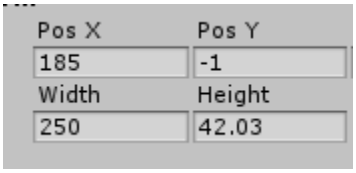
**HUD**

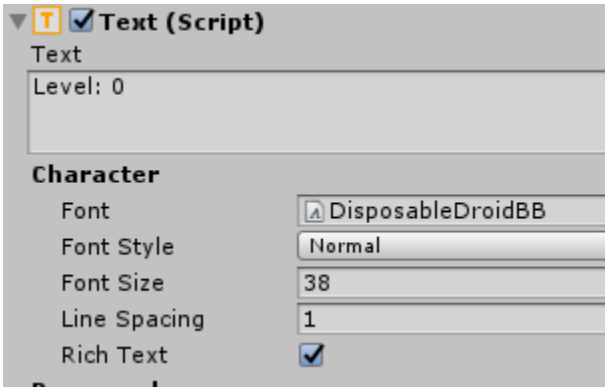



**Pickaxe**




**Level**



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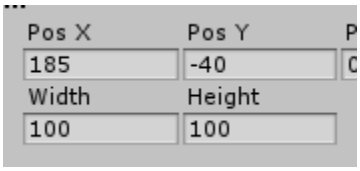
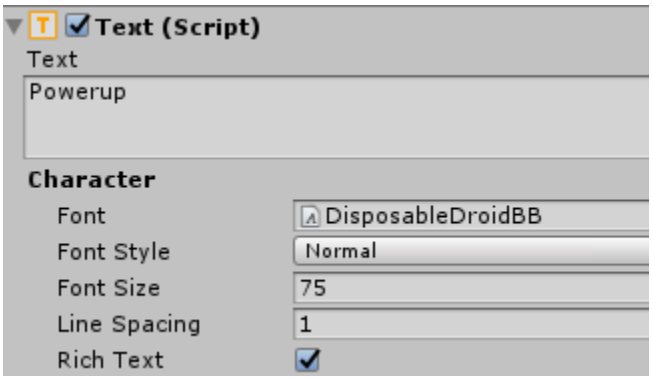
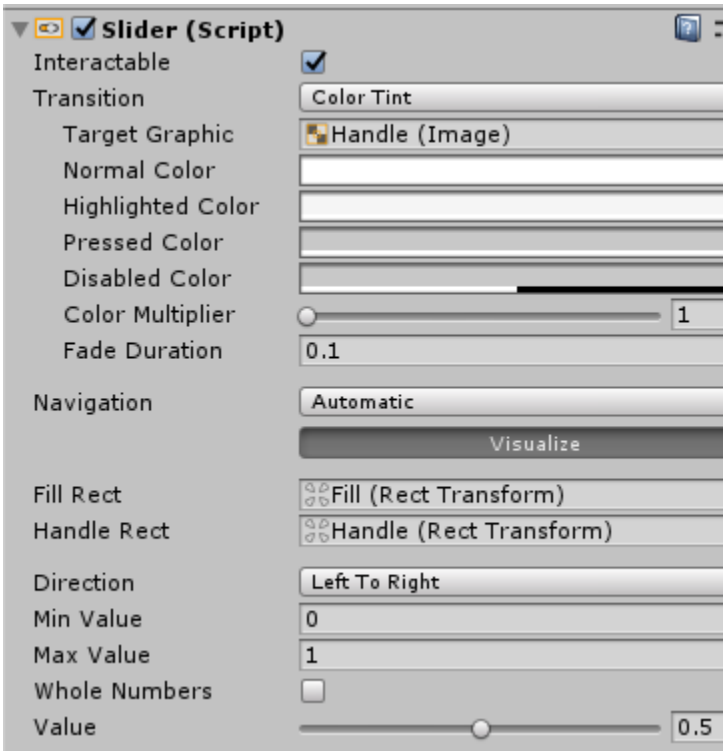
Power-Up




**Score Bar**



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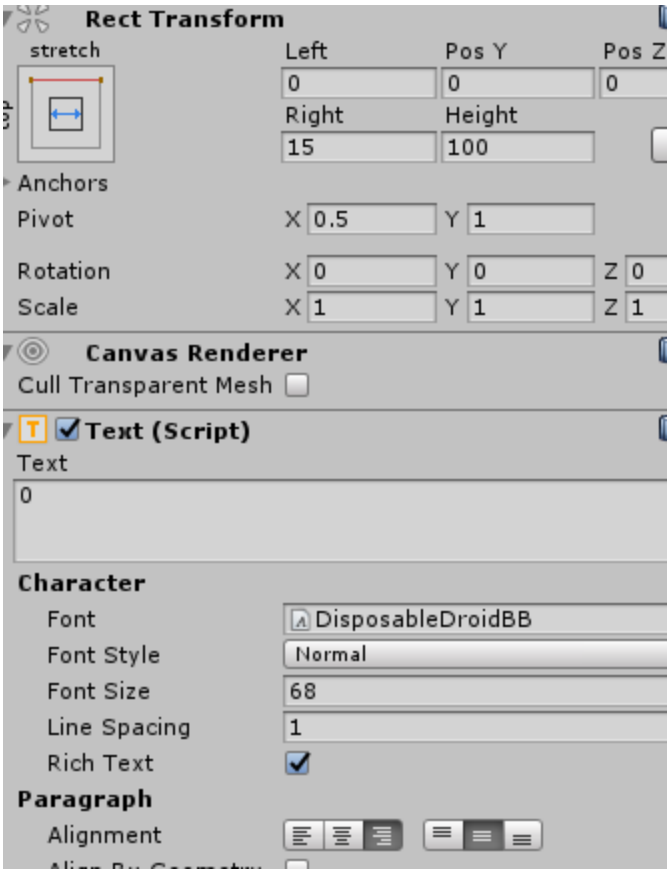




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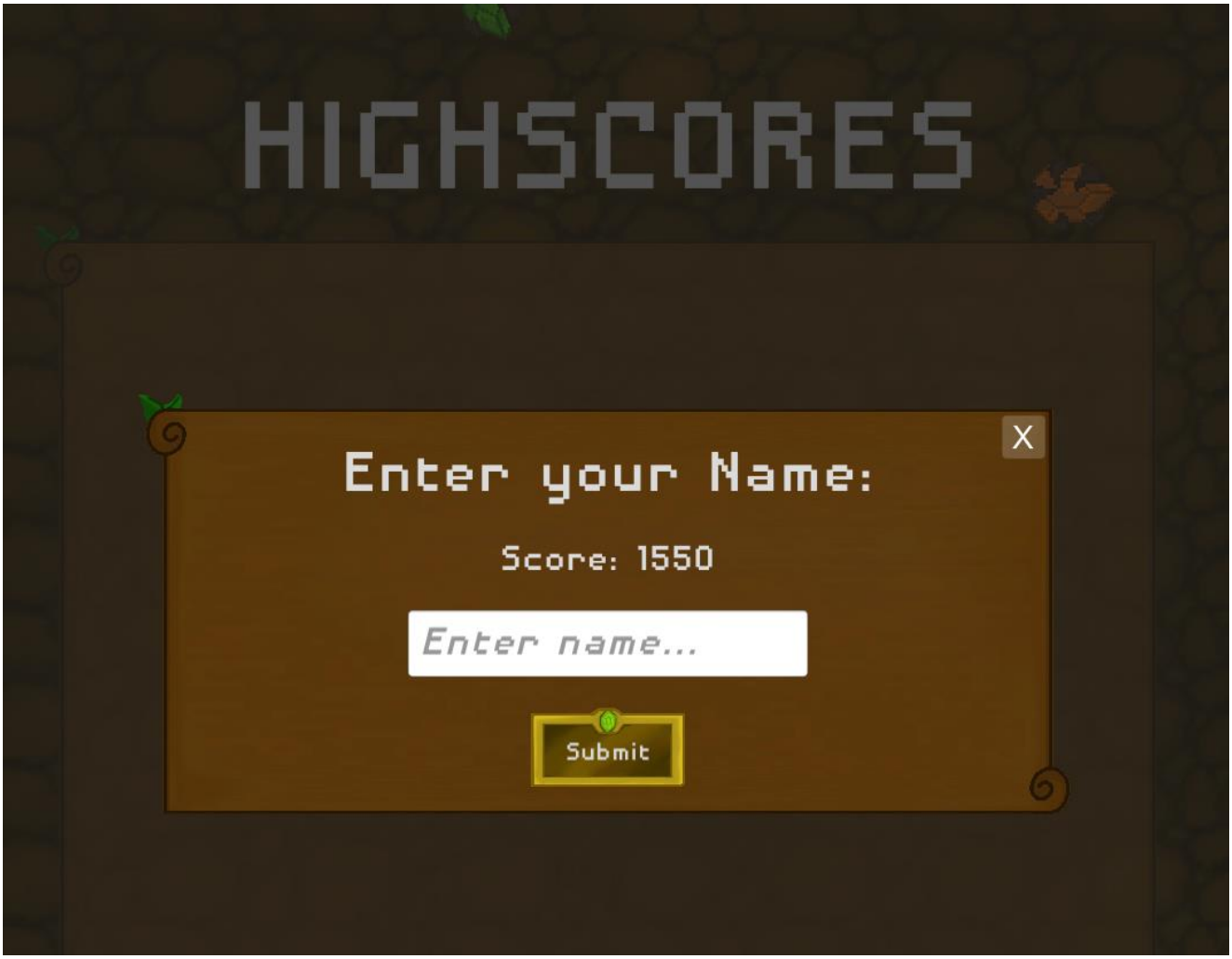
# Font

Font used was

Pixel Font – DisposableDroidBB



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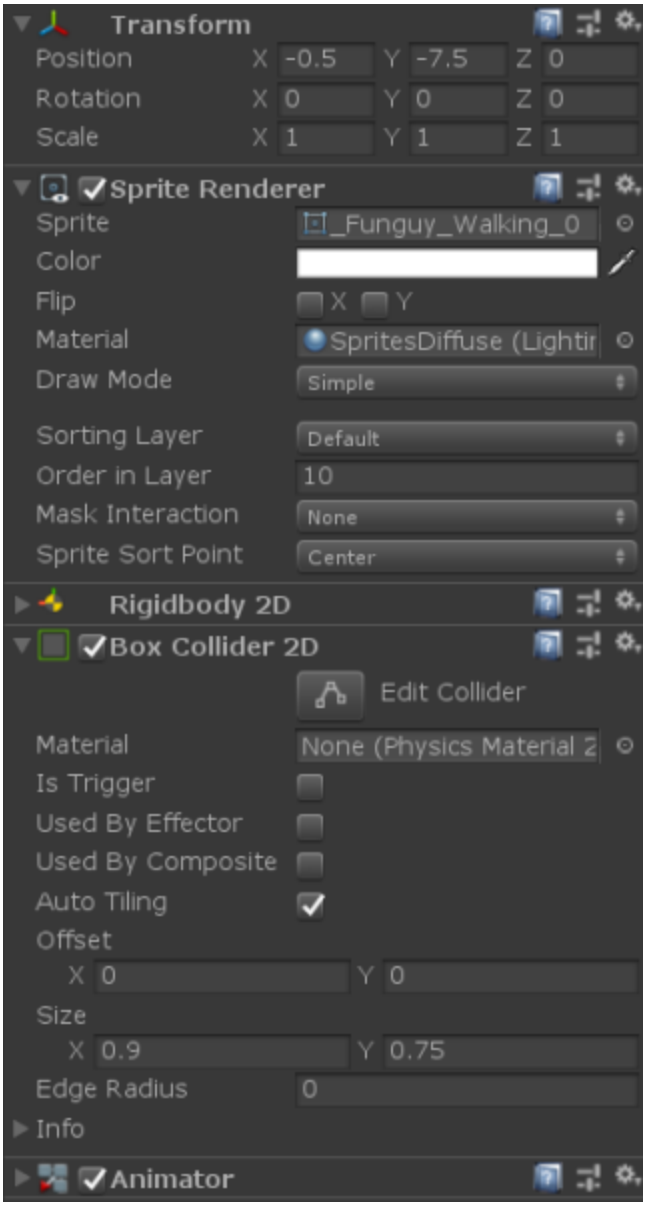
# Character(s)

## Character Dimensions



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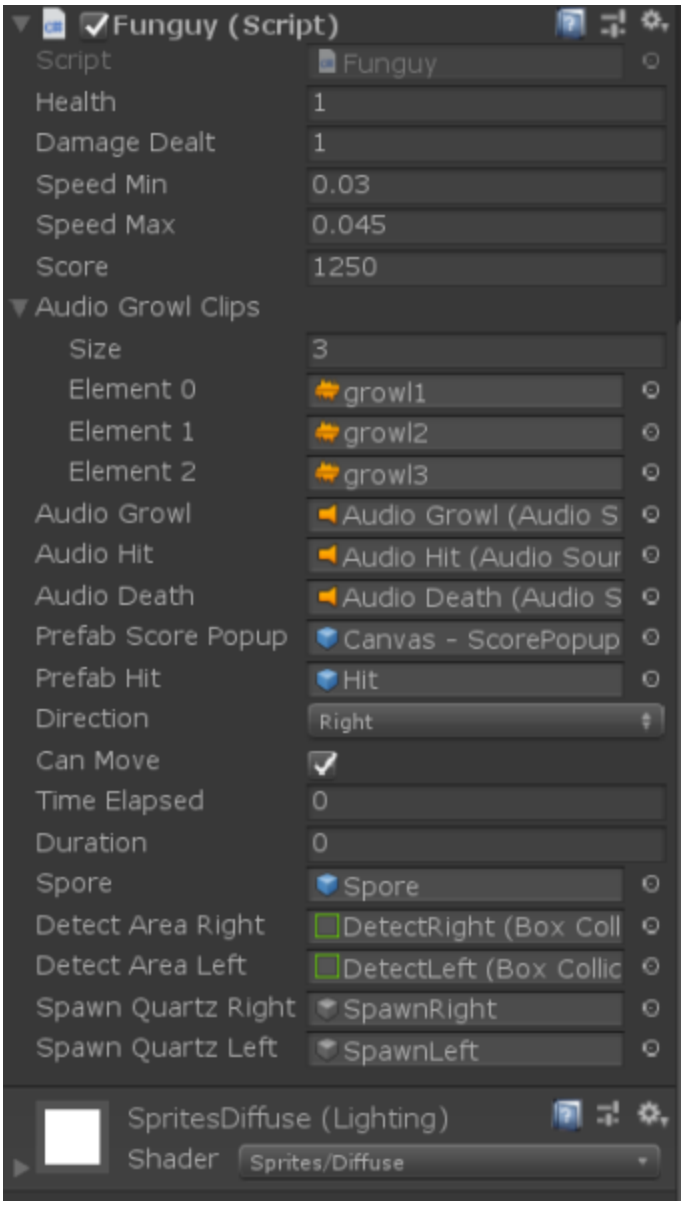
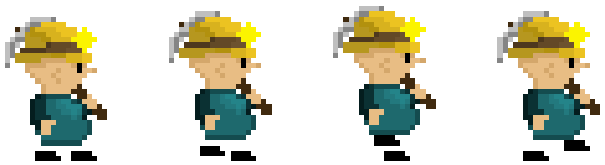



## Jasper

### Walking Sprite Sheet





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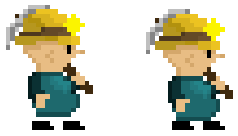
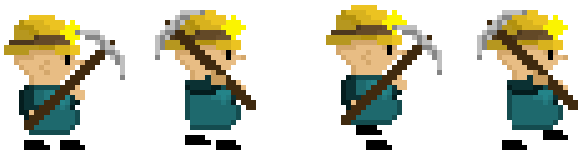
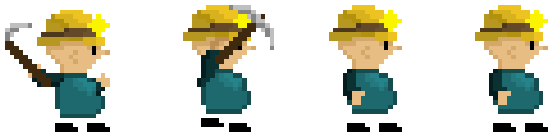
### Idle Sprite Sheet



### Mining Sprite Sheet



### Fighting Sprite Sheet



### Death Sprite Sheet

# Enemies

## Quartz Enemy

### Walking Animation



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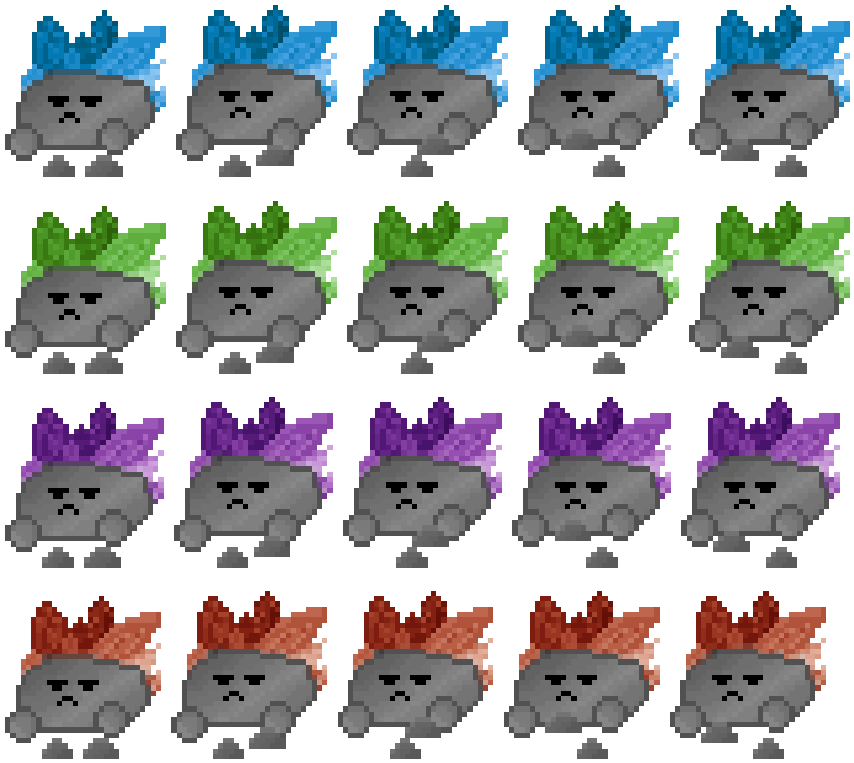
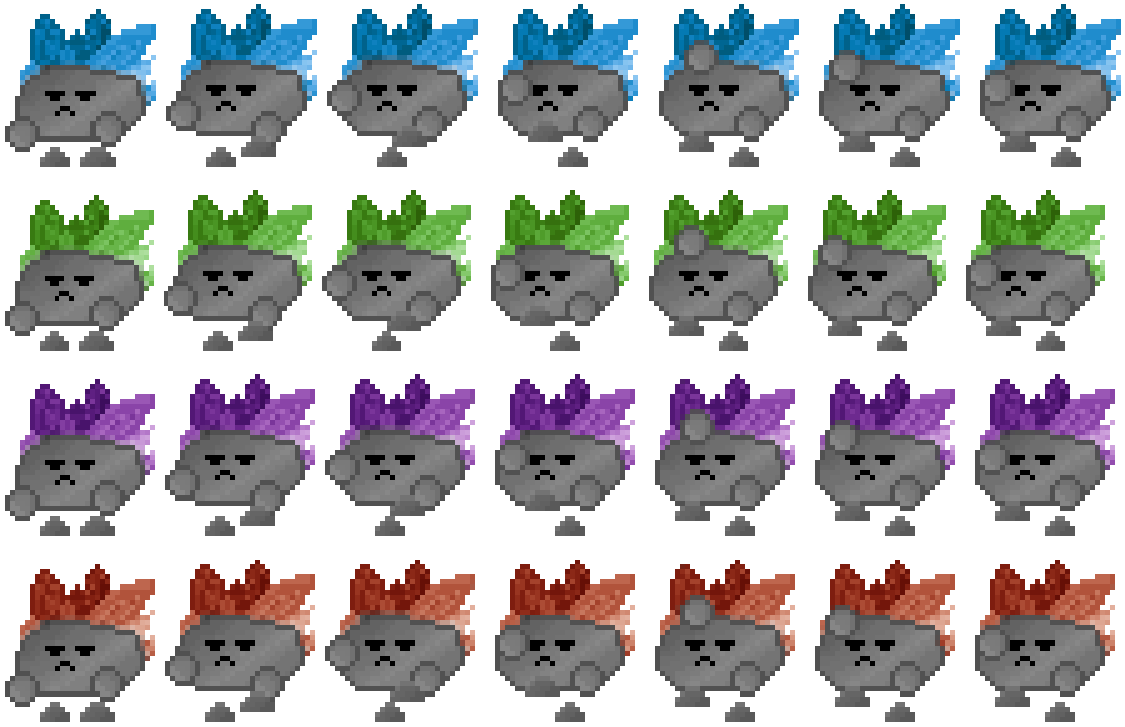


## Attack Animation





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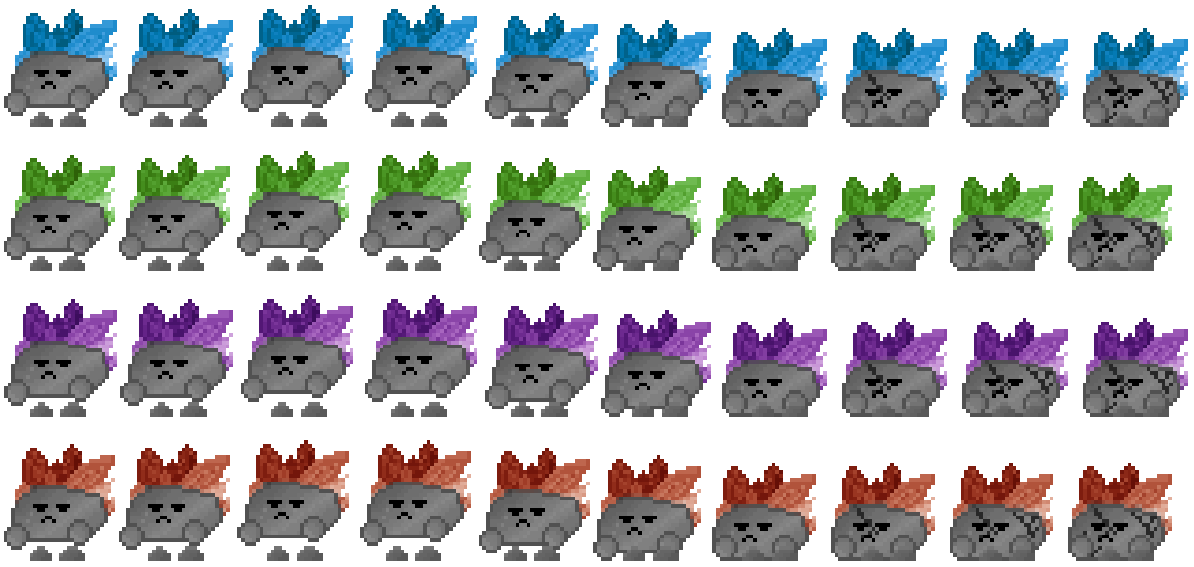
### Death Animation



## “Fun-Guy” Enemy

### Walking Animation

### Death Animation

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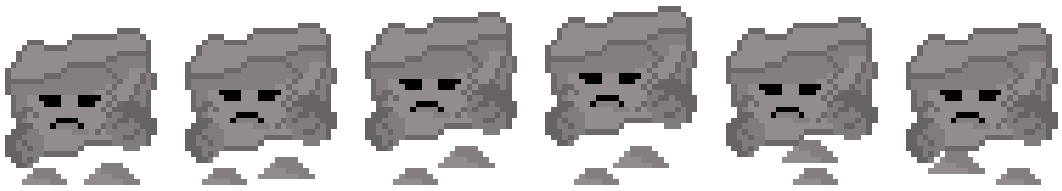
## Angry Rock Enemy

### Walking Animation



### Death Animation

# Power-Ups

### Speed Up

Increases the players speed

### Health Up

Gives +1 Lives



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### Attack Up

Grants the player with faster attack speed

## Booby Traps

### Dynamite

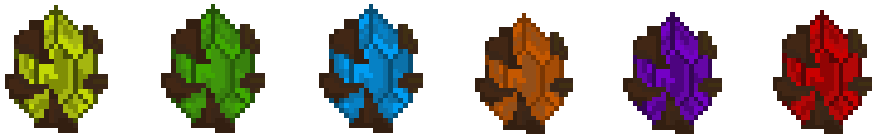
Bombs are randomly spawned in each level and explode when the fuse is lit.

### Earth Quakes

Earth Quakes can happen during any part of the game, but start happening more frequently when you start proceeding down in the level.

## Ores and Gems

### Different Colored Gems:



### Different Kinds of Ores:

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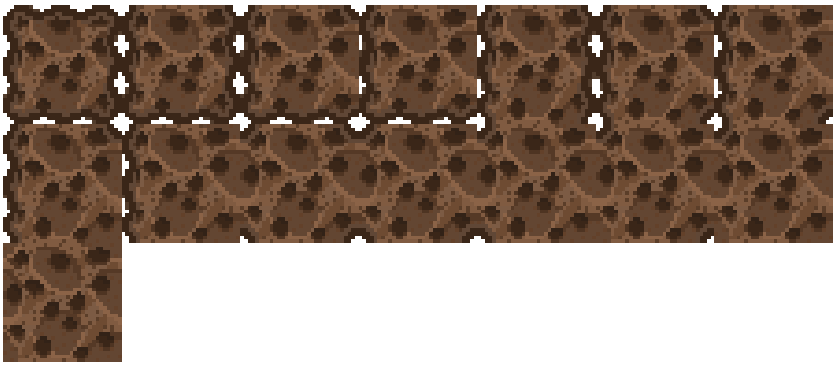
The ores and the gems go on top of the “Top Dirt” tiles. When the player mines the tiles with ore or gems, the score increases depending on which gem/ore you mined.

## Dirt Tiles

### Top Dirt:



### Bottom Rocks:

## The HUD

### (Health HUD (OLD))

The health HUD is a pickaxe with a heart in the middle of it. As the player loses a life, the heart falls to the bottom of the pickaxe with a cracking animation to follow along with it. When the heart reaches the bottom of the pickaxe, the player has one more chance to live, but then will die if the player gets hit by a monster. Here is what the Health HUD looks like. This HUD is on the top left hand side of the game.

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(Health HUD (PRESENT))

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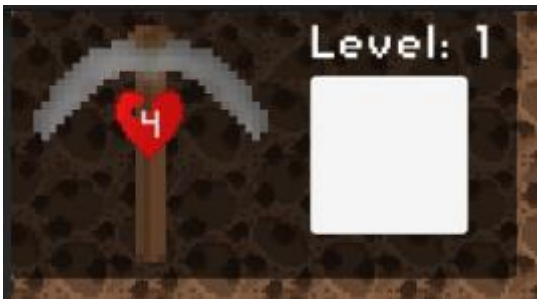


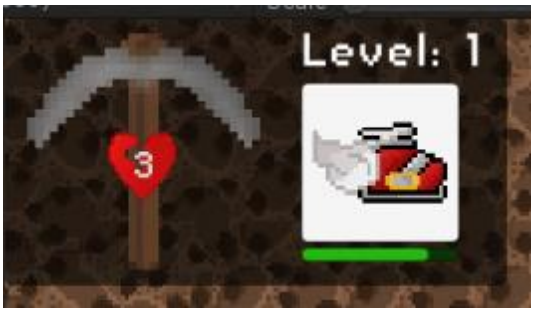

## (Power-Up HUD)

Right below the level, will be a power – up HUD. The power – up only shows up on the HUD when you receive one. The HUD will show the power- up that you have received, and the duration of time left till it runs out. When the power – up disappears, the power up is no longer in use and has run out of time.



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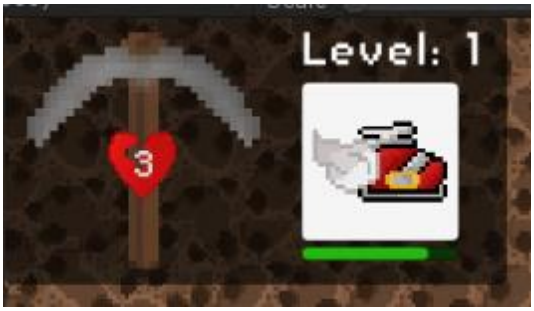


(Score HUD)

The score shows up on the top right-hand side of the screen. It starts at zero. As the player mines ores, gems and kills monsters, the score will increase.

# Player Feedback

## Tyler (19 years old)

**Liked:** He liked the boomerang effect. The darkness of the levels scary. He also thought the game was addicting and very satisfying to play.

**Disliked:** Cannot attack down. He wanted more power-ups (specifically the health up)

## Justice (19 years old)

**Liked:** Mining is so rewarding and the sounds are reassuring.



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## Brittney (20 years old)

**Liked:** The growl sounds make the game come to life. The assets are pleasing to the eye and the lanterns really add ascetic to the game.

**Disliked:** The player sometimes moves too slowly.

## Spencer (20 years old)

**Liked:** The amount of lives seems very reasonable. There are enough amount of lamps and the lamps give the darkness this real feeling. The theme of the characters is appealing, I love the underground cave and theme.

**Disliked:** The player sometimes moves too slowly.

## Jason (19 years old)

**Liked:** It is an interesting concept of a game.

**Disliked:** It is laggy between blocks, the spore hit box is way too big so it makes fighting the spores impossible.

## Jessica (10 years old)

**Liked:** I liked the gems. They are so colorful and pretty and the sound that happens when you collect them makes me feel like I won the game. I like that it is scary. It makes me feel awesome when I have completed a level.

**Disliked:** The enemies are scary and growl a lot.

## Alexandra (7 years old)

**Liked:** It can be really hard to play but the gems make it worth it.



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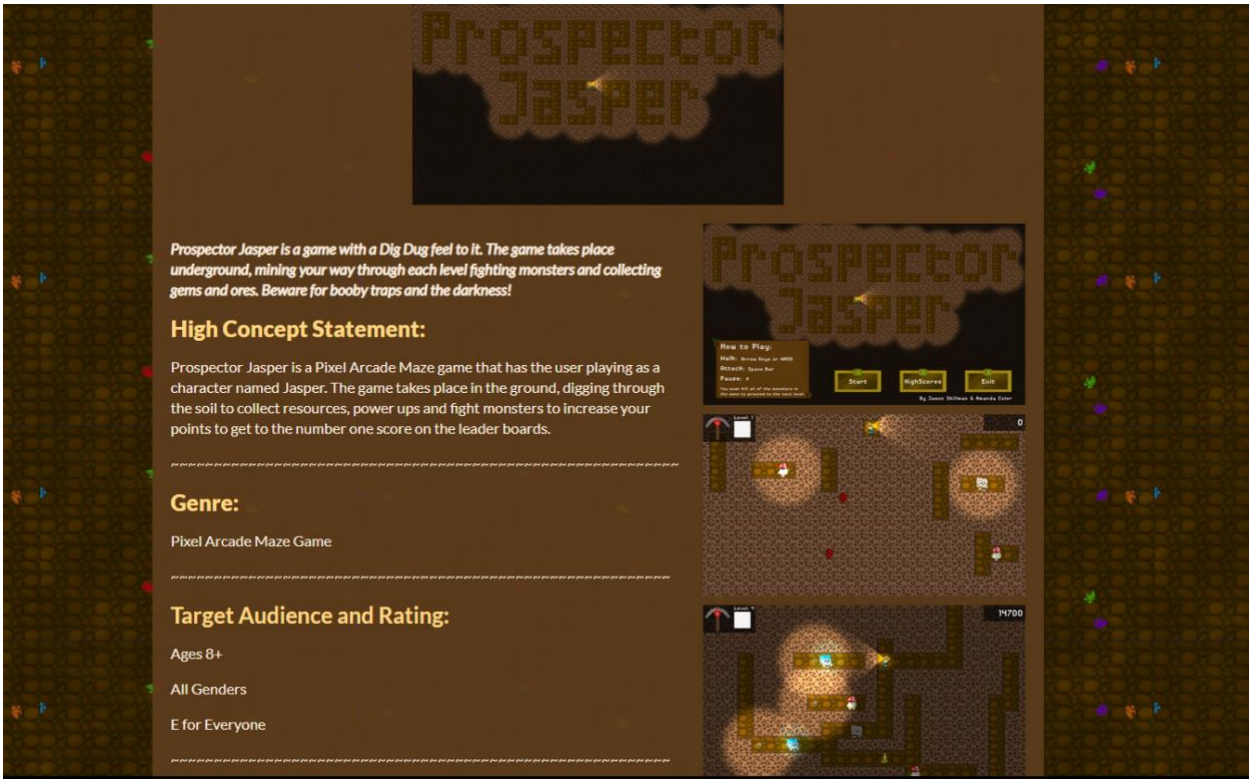
**Disliked:** It's so hard to play. I don't know if I could ever be as good as everyone else on the leaderboard.

# Where to View Prospector Jasper

## Itch.io

https://jasonskillman.itch.io/prospector-jasper



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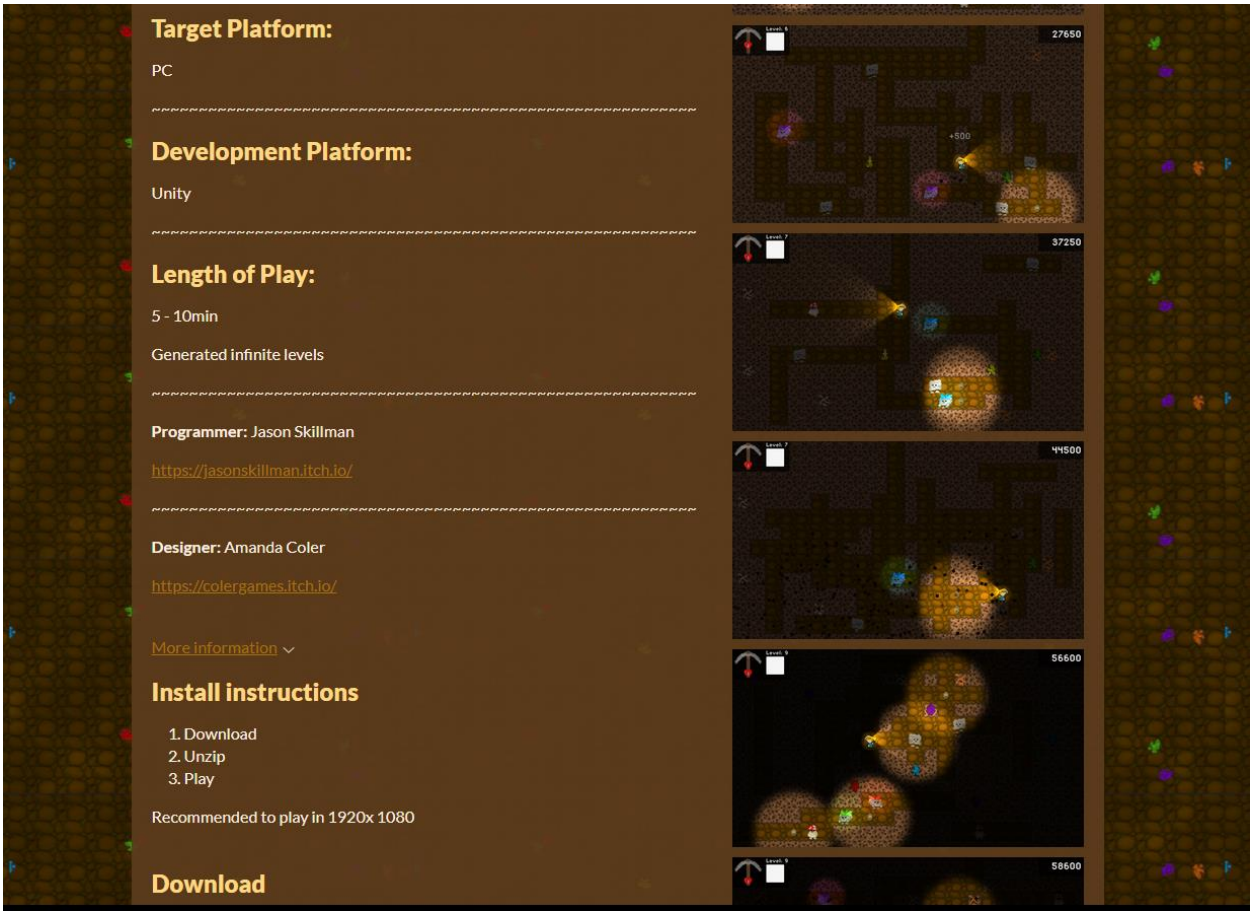




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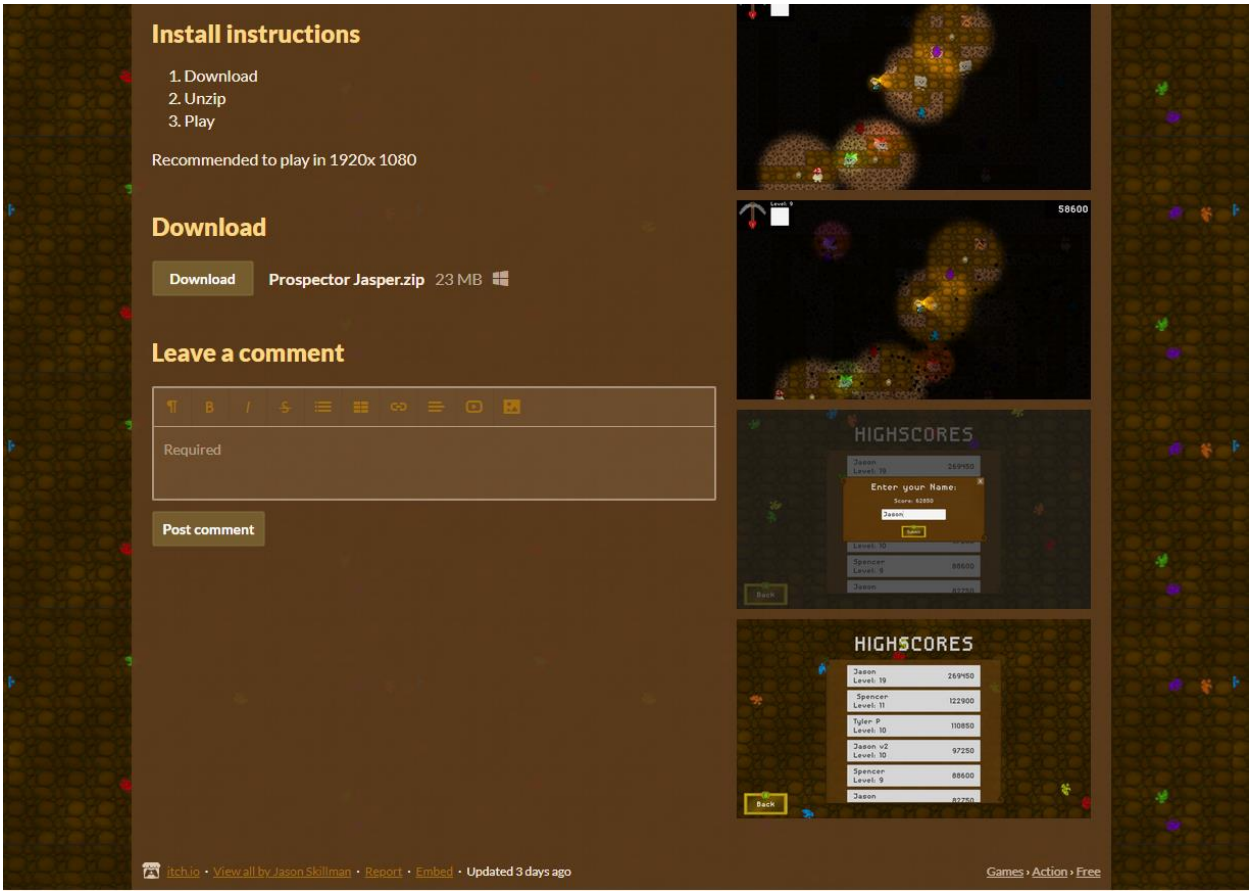


# Credits:

Programmer: https://jasonskillman.itch.io/

Designer: https://colergames.itch.io/



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