

# Design Document

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## Theme

Bounce

## Concept

You're a miner who goes down floors of a mine.

As you make your way through these floors you try to collect as much ore as you can.

However staying on one floor for too long can be dangerous due to the monsters that accumulate overtime.

It's all about balancing risk vs reward to get the most out of your descent.

Each floor is randomly generated with an entrance, exit, ores, and monsters.

The longer you stay in a floor the more monsters will spawn.

Encouraging you to move quickly and choose your moves carefully.

The game is turn-based meaning that every entity moves or attacks at the same time.

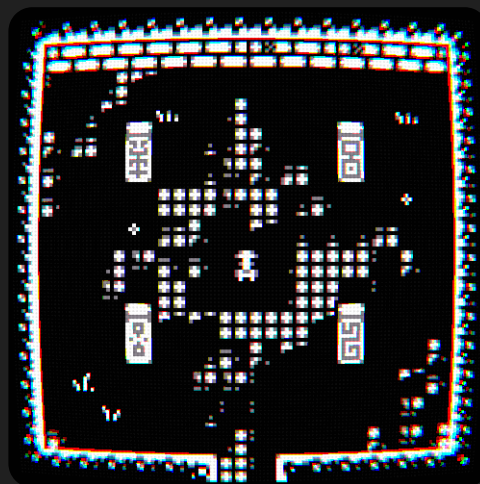
A turn only happens if the player moves, or performs an action. (like attacking)

Attacking an enemy causes them to bounce back, messing with the order which causes you to get hit if you move towards the enemy again.

And you cannot just wait for the enemy to move towards you, so now you are motivated to perform an action to avoid being attacked.

## Style

Old school 8-bit rogue-like art style (Examples below)



# MoSCoW

Must	Should	Could	Won't
Player Controller	Shops	Multiplayer	Online Multiplayer
Tilemap	More Ores	More Floors	
Collisions			
Enemies			
Inventory			
Mining			
Floor Generation			
User Interface			

## Tasks

**MUST** Player Controller

Create a player that can move in the four cardinal directions.  
The player can also interact by bumping into obstacles.

**MUST** Tilemap

Create a tilemap class for rendering the environment.

**MUST** Collisions

Create the collision framework for tilemaps and entities.

**MUST** Enemies

Create a generic enemy class with health, damage, and a sprite.

**MUST** Inventory

Create an inventory for the player controller along with a GUI.

**MUST** Mining

Add ores which the player can mine by bumping into them.  
*(The ore will be added into their inventory)*

**MUST** Floor Generation

Create a procedural floor generator that creates interesting caves & dungeons.

**MUST** User Interface

Create a main menu & pause menu for the game.

**SHOULD** Shops

Create random shops inbetween floors where you can sell your ores for items.

**SHOULD** More Ores

Add more unique ores to the game, that can be used in the shops.

COULD Multiplayer

Add the option to play together with friends over LAN.

*(The way turns will work here is still vague)*

COULD More Floors

Add more floors with different visuals, ores, and enemies.

## MDA

### Mechanics

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### Dynamics

...

### Aesthetics

...

## Tools & Resources

- Visual Studio C++
- BUAS Template Engine
- Aseprite