

## Assumptions

- After an invincibility battle all weapons will have durability lowered
- ZombieToastSpawner being destroyed affects the durability rate of weapons
- Player won't have multiple swords and hence we will only need to calculate this once, the same applies to shields and bows
- Durability of items, bribe amount, spawn tile and health of entities will always start at one in the config file
- ZombieToast can be spawned in via the Json file
- If an entity is spawned on the same spot as the player after a tick, a battle will not occur.
- There won't be the occurrence that a bomb destroys an exit when going to the exit is one of the goals
- There will never be the case where a goal can't be completed
- All doors have a matching key as given in the dungeon file
- Spiders will spawn if spawned position is blocked
- Boulders can move onto collectable items
- Boulders do not teleport through portals
- Zombie will not spawn if all space adjacent space is occupied by a static entity though it can spawn on the same spot as a zombie had previously
- If a player, zombie, mercenary, spider is spawned on top of an entity that is meant to block it, it will not affect their initial movement and it will be if for the first movement it is non-existent.
- If an enemies movement is blocked by an entity they will stay in their original position expect for when Dijkstra Algorithm is in affect
- A mercenary can go through a portal
- If any other entity goes through a portal they are unaffected
- If when a mercenary or zombie run away but are trapped, they will not move
- If there are two shortest paths towards a player a mercenary can pick either
- Moving entities do not collect any items
- After a player moves through a portal and a moving entity is there a battle is started
- If a shield has a higher defence than enemy attack in battle than the entity does not inflict any damage on the player and the battle will continue until the enemy's health is towards one
- Zombies and mercenary do not push boulders and can't move through them
- Player can't move boulders onto moving entities, players can move onto all other entities apart from another boulder or onto a wall
- All fields in config file will be integers except hydra\_health\_increase\_rate and assassin\_bribe\_fail\_rate
- Only one player is given in the config files
- The dungeon file will only state goals once
- Generation of Id does not matter as long as there are no double-ups
- If player has the inventory to build multiple of the item, the program will only build one
- As long as a boulder is on top of a switch the bomb can explode even if other entities move onto it.
- MovingEntities destroyed by the bomb will not contribute to enemies' goal.
- If a player dies on the same tick as them completing a goal, then that counts as them achieving the goal.
- Anything other than swamp tiles, walls, boulders, doors and portal will not affect Dijkstra algorithm
- If an entity is already allied, they will stay as per normal when other entities are being mind controlled and will still stay allied after the sceptre loses effect
- Spectre will stay in the inventory even after use
- When a door is to be open when the player has both a sunstone and the key, the key will be used
- If an entity is originally spawned on the swamp tile, it will have no effect on the movement
- There is only ever one swamp tile at a position
- If there is more than one ally, they will all be in the same position and contribute to any battles
- Since enemies cannot push boulders, they do not affect light bulbs
- A game name cannot be saved if it had previously been used
- A switch without a logic field will not active wires