



# Project "Lego RPG"

## Game Design Document

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# Game Overview



## Game Summary

“Lego Lord of the Rings but based on Camp Member character designs”

The game follows Diangelo, our main hero, on an Epic Quest to find the source of the disappearance of Lego in the land of Legodom. The game utilizes free music and voice acting of our camp members. Slapstick humour used throughout and content more family friendly.

## What is the Game Genre?

- Single player, Fixed-camera, 3rd-person Action RPG (like old school Diablo games).

## What is the Player Experience?

- Game should be funny
- Utilize story plot lines that parody of Lord of the Rings and other Fantasy films
- Characters are chosen from camp member designs
- Should have the Lego land familiar game play
- Some game elements borrowed from Lego Lord of the Rings



## What is the Game's Theme?

"Failure Can't Tolerate Persistence". Through our story and game elements we will reinforce that the hero is underpowered, but resolute.

## Who is the Target Audience?

- Younger camp members.
- Ages 8 to 13
- Need some higher level content to satisfy older players
- Language and content must be family friendly

## What is the Setting?

- Medieval times. Fantasy setting
- Knights, wizards, swords, orcs
- Some of the plotlines of LegoMations but set in a fantasy world



## What are the technical details?

- Developed using: Unity with C#.
- Art Assets: 3D game world and characters with 2D User Interface.
- Platform(s): Laptops used at camps
- Controls: Mouse / Keyboard and also Game Controller.

## Game Title Ideas

Something witty that conveys the camp LegoMations.

# Ezmore's Crystal

## When will it launch?

Summer 2019 – full demo

Summer 2020 – Part 1



# Camera, Character and Controls



## Camera:

The game is played with a fixed-camera isometric view (note: using the loose definition of isometric meaning 3/4-ish top-down view). The player character will be locked to the centre of the screen.

## Character:

Player should be a young, unlikely hero named Diangelo. Would be great to include both a boy and girl Minifig. Might include pickups of different heads, male and female. Someone completely new to adventuring and in the dark, just like the player.

The player will shape the direction that their character evolves in terms of strength, intelligence and other attributes, selected when leveling up. Through dialogue choices (eg. friendly, honorable, nasty, sarcastic, etc) the player will shape how they see their Hero's personality.

The character will have the following general gameplay actions:

- Stand still and do nothin'
- Move (one speed, kind of a fast version of an old man's shuffle)
- Attack enemy (either melee and ranged depending upon weapon equipped)
- Interact with world object
- Interact / speak with NPC
- Use special attack
- Use inventory item (eg. healing potion)

In addition, the player will also be able to:

- Manage inventory
- Manage stats / abilities / level ups
- View and manage quests (stretch goal)
- Save, load and other game functions

- Select dialogue options when engaged in dialogue
- Interact with world map to travel to new locations (we may or may not have world map - its a stretch goal)

### Controls:

The game will be created as both mouse + keyboard as well as controller supported.

As a starting point we will follow standard conventions for RPG controls (specifically, Diablo 3 controls) - that is, mouse to move / attack as well as click on the HUD icons and keyboard to access hotkeys for all HUD items, menus, special attacks, etc.

## 30 Seconds Of Gameplay

### Context / Setup:

Beginning cut scene similar to beginning of Lord of the Rings. The land has changed; show Lego objects that become more real like. The land is becoming less Lego. Show our hero, Diangelo setting out to find the source of this weird disturbance in the world of Legodom. Player arrives on the shore of the Forest of .... He meets up with the Red Dress Woman who tutors him in the ways of adventuring.

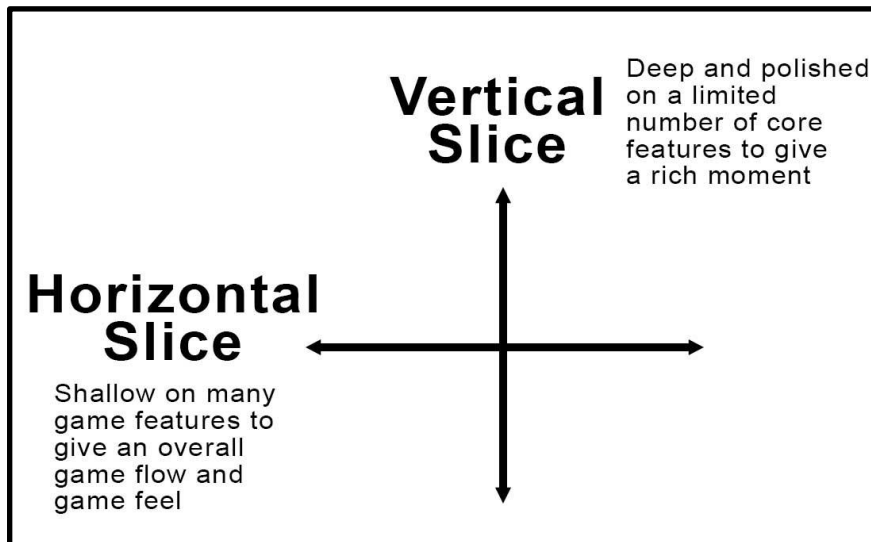
Use one of the camp member character designs for the enemy that must be defeated.



### Player Actions:

- Enter the forest and meet up with Red Dress Woman.
- Defeat the Green Goblins and Ogs.
- Find the way to Studsville – a small village under siege by bands of Green Goblins, Rogues and Ogs
- Release the wizard Ezmore from captivity by the Rogue Queen.
- Discover the location of the crystals and embark on a mission to retrieve them.

# Gameplay Features



**Most likely our feature implementation priorities will go like this:**

- For the first major milestone (combat):
  - Player movement
  - Basic combat with melee and ranged attacks
  - Basic enemies with melee and ranged attacks
  - Simple prototype level with enemies placed as specific points in the level
  - Special abilities and special attacks for player and enemies
  - Player attributes which effect modifiers
- For the second major milestone (progression and game flow):
  - Player progression, XP, leveling up
  - Creation of level editor (or equivalent system) - place world pieces, enemy spawn points, doors, etc
  - Simple dialogue system
  - Saving, loading, level progression
  - World progression, perhaps with meta-map and fast-travel
  - Fully implemented inventory system
  - Items impact modifiers / stats
  - Loot drops linked to enemies
  - Lots of UI optimisations and icons for inventory
- For the third major milestone (story, dialogue, quests, tuning):
  - Fully implemented dialogue system
  - Quest system
  - Non-interactive moments editor (ability to lock the player and control the camera and NPC / monster behaviour).
  - Implementing content, tuning and balancing the game, adding any last stretch features that we want to sneak in there
  - Art and audio polish
  - More enemies, boss battles, NPCs, levels

## Combat and Movement

The following is the most ugly diagram I could come up with. I even used pink text. I'll try to best this performance, but it might be tough.

Oh yeah, and it explains the core of the gameplay and movement.



Here are the things the player can do (listed with mouse/keyboard, these will also be mapped to controller):

- Left Click on a place on the ground to move to that location.
  - Requires collision
  - Requires pathfinding
- Left Click to interact with world objects:
  - Doors, NPCs, loot.
- Left Click to do regular attack on enemy
  - Requires a check to see if object is enemy
  - Will move character directly to that enemy
- Right Click to do big attack on enemy
  - Same as regular attack but has slower animation and more damage.
  - Uses small amount of mana / energy / juice
- Use ability (either by using hotkey or clicking on icon in HUD)
  - Immediately triggers that ability.
  - Damages / interacts with enemies as per the ability design.
  - Reduces mana / energy / juice
- Use consumable item (once used it is consumed)
  - Use item to increase health
  - Use item to increase mana / energy / juice
  - Use a scroll or something similar to buff themselves or attack enemies

Here are the core things an enemy can do:

- Stand still, waiting for the player to enter their LOD radius (ie. when they can “see” the player)
- Rush at the player
- Attack player with regular attack
- Attack player with special attack

Other things an enemy can do (not as high priority, but nice to have)

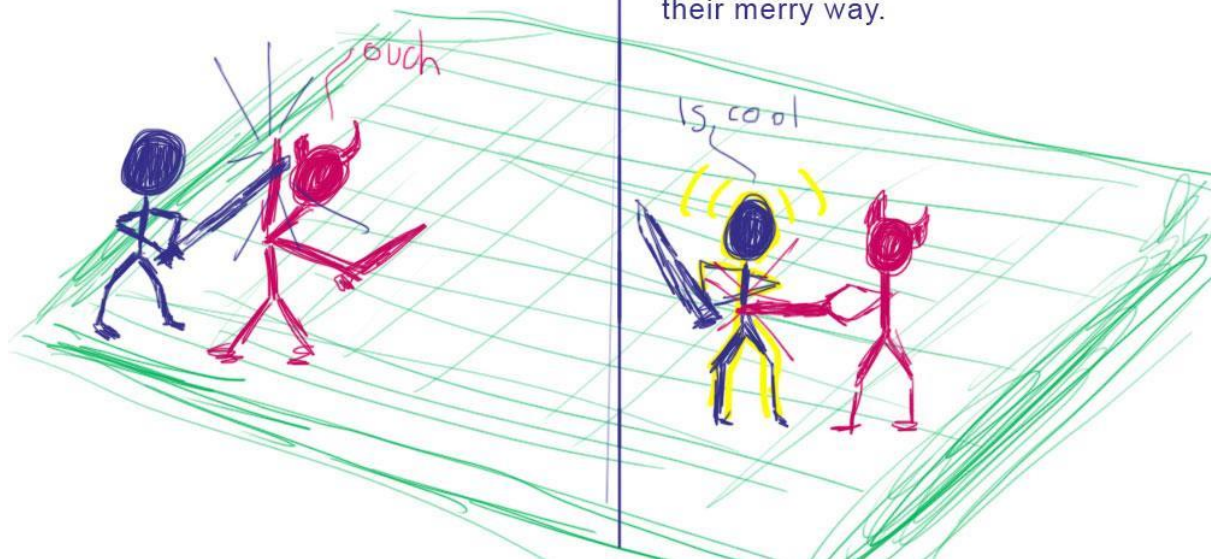


- Wander around a certain defined area (could be based on radius of start point)
- Patrol in a specifically defined area / on a path (needs to be more specific, like down a particular road)
- Adopt an "alert" pose where they can see the player but don't yet rush at him.
- Run away from the player
- Taunt the player (ie. not moving or attacking but triggering some sort of animation and sound effect)
- Transition from friendly to enemy state based upon dialogue options or current game state (eg. town is on high alert and characters attack player on sight).

## Hitting and Being Hit

### A. Player hits enemy

When player hits enemy, the enemy's attack is interrupted (ie stopped) and the enemy will play their reaction animation and / or flash a colour.



## Special Abilities and Attacks



For the first iteration of the prototype we should focus on a core mechanic that allows for lots of expansion but isn't complicated from the get-go. Here is the proposal:

- Left click (or A button) is for regular attack.
- Right click (or B button) is for power attack and uses “energy” (note, this could be themed as energy, mana, mojo, fatigue, etc). The power attack has a slower animation and does more damage.

Steps we can implement to slowly advance the power attack into full blown abilities:

1. Power attack, uses energy (special attacks would use energy)
2. Add a cooldown to the power attack (special attacks would have cooldown)
3. Add the ability to use a hotkey to execute a second type of “power attack” (or ability) which has a different effect on an enemy such as stun. It costs energy in the same way the first power attack does.
4. Once we have a few “abilities” (ie. more advanced power attacks that have interesting impacts on enemies) we can remove the energy cost to do a power attack (it just becomes a second interesting choice for free attack with a long wind-up and big damage payoff) and we put the abilities that a player has on their hotkeys from 1 to 6 (or so) on the keyboard or mapped to specific buttons on controller.

The following is a list of general special ability types that we should consider implementing (note: just a brainstorming list for now - feel free to add to):

### Melee Hitting for Damage

- Power hit - player charges up and does a large hit with more damage (either a fixed amount or a multiplier to current regular attack damage)
- Ground pound - causes damage to all enemies in a particular radius around the character or around where the character's attack lands.
- Knock back - smashes an enemy backwards
- Dash and Slash - player quickly moves from one place to the next, damaging enemies he passes through

- Eye poke - Three stooges style, player aims for enemies eyes and if successful will render enemy unable to attack for X seconds
- Cleave - huge swing, player has X% chance of instantly killing enemies under a certain level.
- Flurry - player strikes out with 5 quick hits in fast succession
- Whirlwind - player spins around, damaging any enemies that he connects with, each time he connects with them
- Berserk - player loses X health but gains X% extra damage
- Focus - player gains a bonus to critical hit chance
- Shield Bonk - if the player is holding a shield they can use it to bonk an enemy on the head, stunning and dealing big damage
- 6-inch punch - crotch shot. Stuns opponent for X seconds.

### **Ranged Hitting for Damage**

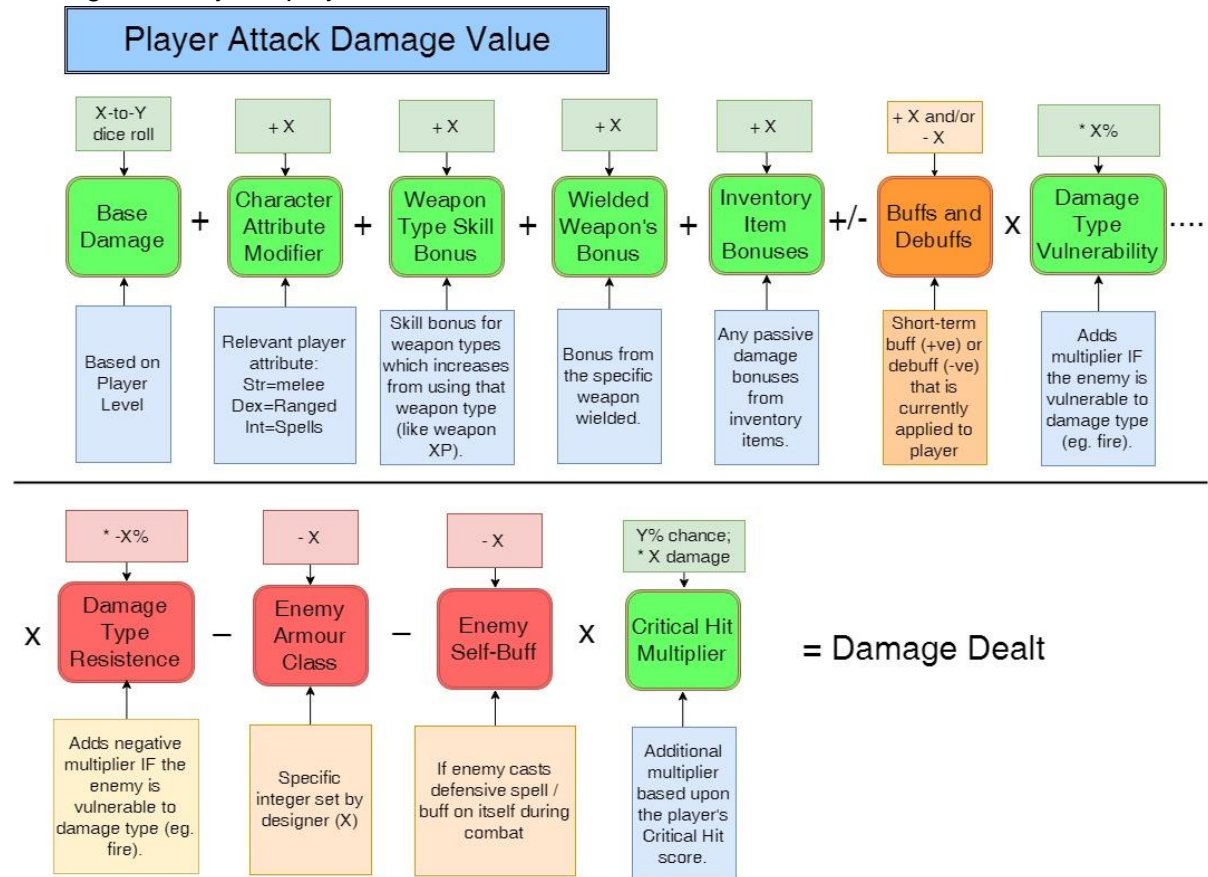
- Power shot - for ranged attacks, player charges up their weapon and hits for additional damage
- Explosive shot - upon hitting, explodes and causes AOE damage
- Big Bertha - player shoots a gigantic projectile that does uber damage
- Holy Hand grenade - Player lobs a grenade that explodes and causes much carnage
- Quick shot - shoot X number of arrows in quick succession
- Hail Mary - player shoots arrow straight up in the air, it sails off screen and a large bird falls out of the sky and lands on the enemy
- Double arrows - for short duration the player will shoot 2 arrows each shot they make
- Fan of blades - arrows / knives shoot out from the player in all directions
- Mud flinger - player hurls mud at enemy's face, stunning and blinding them for duration
- Ice Arrow - player shoots a bolt of ice which freezes the enemy
- Fire Arrow - player shoots a fire arrow which sets enemy on fire and does additional damage

### **Spells Cast**

- Stun / freeze - stops enemies where they are hit, they cannot move and cannot attack for X seconds.
- Poison - does initial damage and then X damage per second
- Fear - makes enemies run away or run around distracted
- Rage - makes enemies attack other enemies
- Polymorph - turns enemies into things like rabbits
- Lightening chains - damage bounces from one enemy to the next
- Fireball - player casts a projectile fireball at a particular enemy
- Blizzard - player causes a storm of Orcs and Trolls to fall upon his enemies
- Raise dead - player can turn corpses into short-lived skeletons that will attack enemies
- Heal - player heals themselves for certain amount of health
- Shield of Impenetrability - a shield (orb) encompasses the player making them invulnerable for short amount of time
- Scary shout - player shouts some nasty words at enemies which makes them scared and run away

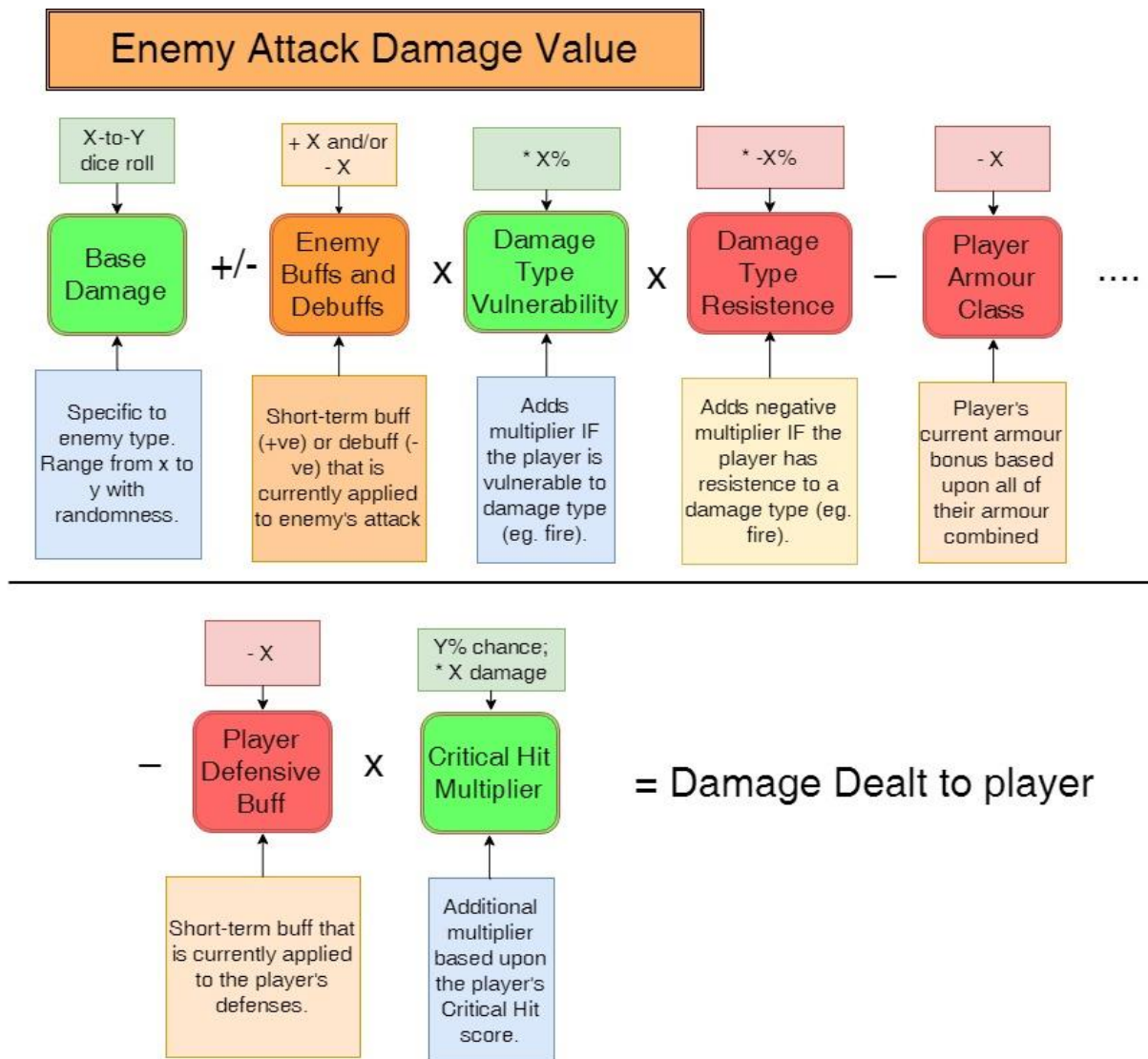
## Combat Modifiers and Damage Dealt

The following shows the modifiers and bonuses that will be factored into the amount of damage dealt by the player for each standard attack.



A similar calculation is made for when the enemy attacks the player. The elements are simplified with things like base attack, attribute bonus, weapon bonus, inventory bonuses all rolled into one number (Base Attack).





## Weapon Types

Here is a list of weapon types / categories we plan to have in the game:

- Dagger (1h)
- Sword (1h)
- Sword (2h)
- Club (1h)
- Staff (2h)
- Axe (1h)
- Axe (2h)
- Hoe (1h)
- Hoe (2h)
- Sickle (1h)
- Sythe (2h)
- Mace (1h)
- Crossbow (R)
- Bow (R)

- Throwing Axe (R)

## Character Traits and Progression

Player ability stats will follow a fairly standard D&D / RPG approach. Names have been tweaked a bit to be slightly more absurd / funny / interesting. Player feedback needed to see if they like this or if they want to tried and true str, con, int, etc.

Trait	Modifies	Pre-Requisite For
Strongness	(Strength). Modifies damage dealt from standard attacks.	Wearing heavy armor
Fastness	(Dexterity). Modifies how likely player is to be hit by attacks.	Wielding ranged weapons
Toughness	(Constitution). Modifies total HPs	
Smartness	(Intelligence). Modifies magic ability	Learning spells
Charmingness	(Charisma). Modifies negotiation and prices	Learning certain bard-style abilities

- At the start of the game the player will start with minimum stats in each and be given some initial points to spend as they see fit, thereby shaping the type of character they play. Knights require Str, Archers require Dex, Wizards require Int, Bards require Cha.
- Certain things in the game will have pre-requisites based on these traits. Things such as:
  - Weapons
  - Armour
  - Spells
  - Special Attacks
- As the player completes actions in the game they accrue Experience Points (XP). Once a threshold of XP is reached, the player will be able to level up their character by placing a new point into one of their traits. The full design of how many XP points the player receives will need to be designed, spreadsheet style, with the following things providing XP:
  - Killing an enemy
  - Subduing an enemy (if we have such a thing)
  - Completing a quest

## Linking Character Trait Scores with Dialogue

FEATURE REQUEST: Within our dialogue system it would be good to have the ability to pull from a player's stats to feed a string within a sentence. For example:

NPC: "I can see by looking at you that you are a [Current\_Intelligence\_Score] fellow"

Would become

NPC: "I can see by looking at you that you are a fairly dim-witted fellow"

Here is an example of how we would anchor the stats:

Trait	Score	
Str	3	Crippled
Str	4	Puny
Str	5	Delicate
Str	6	A Weakling
Str	7	Feeble
Str	8	A Marshmallow
Str	9	Soft
Str	10	Out of shape
Str	11	So-so
Str	12	Fit
Str	13	Muscley
Str	14	Buffed
Str	15	Ripped
Str	16	Huge
Str	17	A Gorilla
Str	18	An Ox
Str	19	A Monster
Str	20	Gigantic
Str	21	God-like
Str	22	An Incredible Hulk

## Branching Dialogue System

Branching Dialogue - We will need a pretty hefty editing system to allow us to attach specific dialogue to specific NPCs, quests, game events, etc.

Note: investigate "Fungus" on Unity Asset Store. Its a free tool which may assist with branching dialogue. <https://www.assetstore.unity3d.com/en/#!/content/34184>

## World and Level Creation

We will need a decent level editor to allow for quick creation of content. Needs to include placement of modular terrain, placement of non-interactable props, placement of interactable objects, NPCs, doors, portals, enemies.

## Inventory and Loot

To be designed later when we have a feel for combat. Lots of UI design work and 2D art will be needed for this.

# User Interface

## GamePlay User Interface



Note: Images in this section are from the game Torchlight 2 and used for reference material only.

The main UI windows needed for our Gameplay UI are:

- Player stats
- Inventory
- Quests



The approach we'll take is to have 2 window slots. One slot on the left and one on the right. The player can have open the left, the right or both windows.

When opening any of the game windows, the game does not pause. So we need to leave a small space in the middle to see the centred player, just in case the player is being attacked while they have the windows open. Obviously the exception is the pause menu which will indeed pause the game.

Items are moved in inventory by dragging and dropping. Information is revealed by mousing over.



The player stats will be on the left and the Inventory and the Quests will be on the right. The Inventory and Quests will toggle.



# Story and Theme

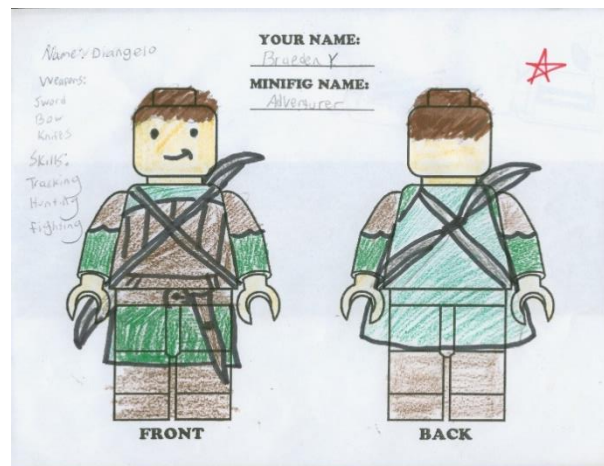


## Our Hero

Who is the character you play? What are their motivations? What is interesting about them? How is the player going to be controlling them? What are they going to do in the game?

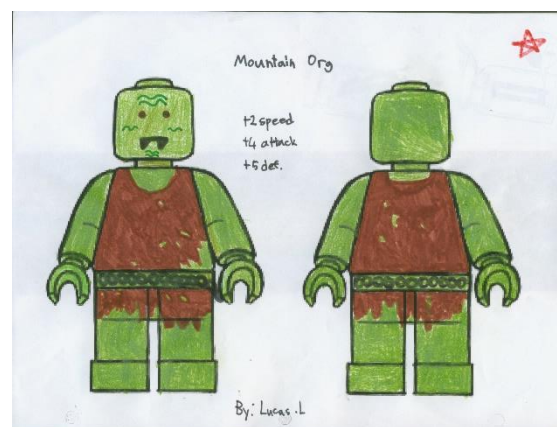
Our main character is Diangelo, a Woodlyn warrior proficient and at home with blades and a bow. He's a skilled tracker and hunter, more at ease in nature than in town. He is a true adventurer.

Diangelo is aware of something changing in the world. The change has happened gradually and easily missed by the unobservant person. Diangelo is worried what this change may do and has done to the natural world. He has decided to investigate.



## Our Villain

Who are the enemies in the game? If the enemies aren't people, then what is the struggle in the game (eg. your game may be a puzzle game like "The Witness" - in that game the puzzles are the thing which the player is doing battle with).



## Our Struggle and Objective

- The land of Lagosdom has changed and is changing. A force is changing the world of Lego into reality. The hero must find the source of this change and stop it before all is lost.

Opening Monologue:

The world is changed.

I feel it in the air.

I feel it in the earth.

I smell it in the trees.

Much that once was lost, for few now live who remember.

The free lands of Lagosdom are under siege. A dark force rises in the East. Armies of Ogs, goblins, and rogues band together to march on the scattered villages of Lagosdom. One by one, the free lands of Lagosdom fall to the power of these dark forces. But there is one who resists....

## Our Call To Action And Motivation

- What is the clear force driving the player forward? What are their goals?



## Map Layout

# Ezmore's Crystal

## MAP LAYOUT





# Enemy Design

What is the overall design of the enemies?

What are your different enemy types and what do they do?

# [Brainstorm] General Ideas

- This is a general section to put ideas, thoughts, comments, etc.

## NPC Character Ideas

- Ideas for NPCs in our game

## Puzzles and Challenges Ideas

- Ideas for puzzles and challenges in our game

## Tools, Plugins, Assets, Notes

- And good resources that you want to remember for later