

The Gimbal Locker Design Document - Group 6

Title

The Gimbal Locker

“The first 2D axis-based action puzzler”™

Gameplay Mechanics

1. Movement
 - a. The player can move in the four cardinal directions.
 - b. Same keys navigate menus
2. Attack
 - a. A simple melee attack that kills enemies in a single hit
 - b. Strikes a unit up to one full tile away
 - c. Killing an enemy triggers *gimbal lock* ability (see below)
 - d. Same key is used to confirm menu choices
3. Gimbal Lock
 - a. Slows time when activated. Can only ever hold one charge, is recharged upon the death of an enemy by the player’s melee attack only (or at the start of a level for more challenging levels).
 - b. During the brief slowdown, the player chooses one enemy to gimbal lock
 - i. This causes them to temporarily be forced to face the direction specified by the player and continue whatever action they were performing before
 - ii. For example, a ranged enemy would continue to shoot but only in the direction they are forced to face.
 - iii. Also potentially allow the player to gimbal lock projectiles mid-flight as well
 - c. The player only gets one use of this ability per takedown *with their own weapon* (enemies killing each other does not grant this ability)
4. Parry
 - a. The player can parry attacks and projectiles.
5. Pause

Rules

1. Contact with anything that does damage (projectile, melee weapons, explosion) will result in instant death for all players and enemies
2. Enemies who are armored/shielded can only be damaged from the side that is vulnerable
3. Gimbal lock will preserve the target’s current acceleration, it is only the direction that is changed
4. Neither the player nor enemies can pass through walls

5. The player can only advance upon clearing (defeating all enemies in) an area
6. Parrying only lasts a short duration (decided during testing) and failure will result in a period of recovery where the player cannot move
7. Rule 6 applies to missed attacks as well

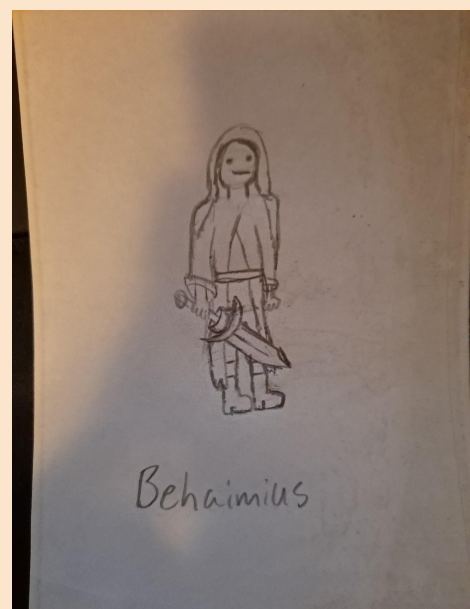
Narrative Premise

_____ There was once a land known as Axium, where medieval knights, rangers, and mages roamed. The land was at peace and under the rule of a merciful king, who was a great lover of magecraft. The king funded a magic order, the Order of the Orthogonals, and enlisted the greatest mages of the kingdom to research all matters of the arcane. The head of this order was a warrior mage known as Quaternius, the man of many normals. He led the mages to discover the secrets of both the Ex and Wy mana flows and consolidated the research into a single, powerful spell known as *GIMBAL LOCK*. This technique provided the user the ability to alter space and bend the rotations of others to one's own will. It took many moons to cast, and its power could only be utilized if it was cast as an enchantment upon the legendary Gimbal Stone.

Eventually, the old king passed and was succeeded by his son, a ruthless and malevolent man. Upon learning of the secrets of *GIMBAL LOCK*, he began to fear a threat to his power and so hatched a villainous plot to eradicate the Order of the Orthogonals and take the stone for himself. Despite a valiant resistance, every mage of the order was brutally slaughtered by the king's forces. All except their leader, the great Quaternius, who was the most powerful of the mages and managed to escape. During his struggle to escape, the legendary Gimbal Stone was shattered into two pieces. One half was taken by the king's forces and presented to him, while the other half was taken by Quaternius and later smelted into an arcane weapon. Now, armed with his newly forged sword, the aptly named Gimblade, Quaternius swears vengeance for his fallen mage brethren...

Characters

Quaternius- The greatest of the old mage order. As skilled with a blade as he is with a mage's staff, he seeks revenge on the King Axiona. The protagonist of the story and the player's in-game avatar. Aside from basic movement, he can attack, parry, and use the legendary Gimbal Lock technique.

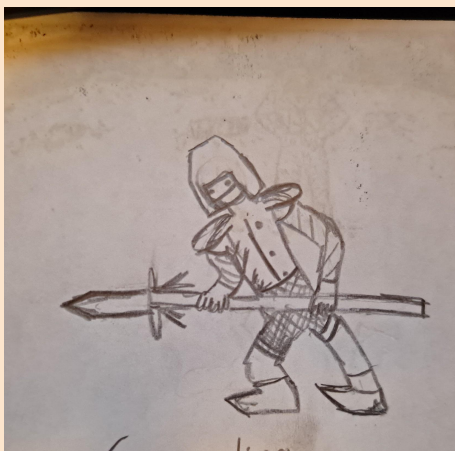
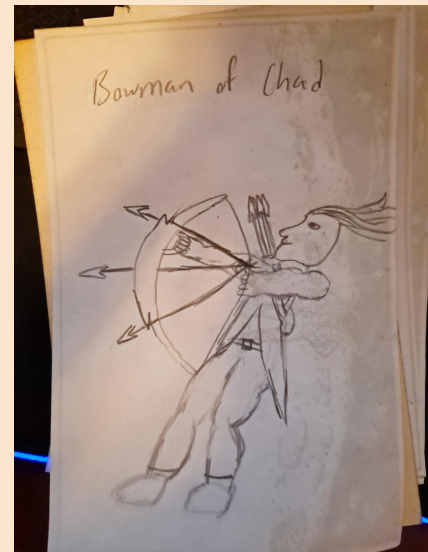


Note: Name changed to Quaternius after drawing was completed



Knight/Tower Knight- The loyal knights of the kingdom form the backbone of the king's army. Regular knights are the most basic unit in the game. They move at a medium pace and can attack up to one unit around them in any direction. The tower knight is the same, but moves slowly and possesses a large shield which blocks all attacks in the direction the knight is facing. The shield also reflects projectiles back towards the one who fired it.

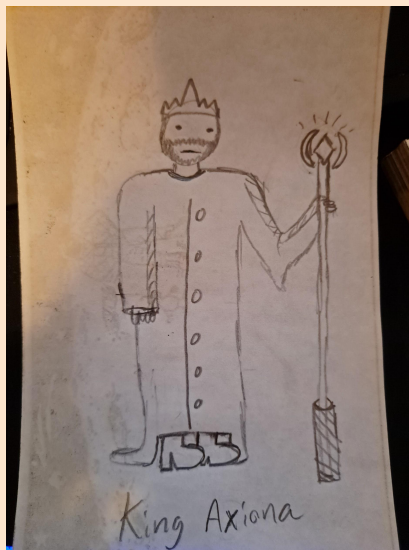
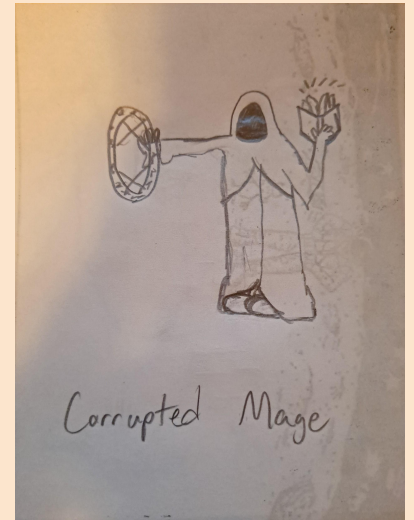
Bowman/Bowman of Chad- The heart of the kingdom's ranged forces are bowmen who shoot down the king's foes with their exceptional archery skills, but among them there exists an even more elite group. It is said that deep in the mountains rests a village composed of abnormally muscular men with chiseled chins, flowing blonde locks, and an uncanny ability to shoot a bow. This village is known as Chad and its legendary bowmen are the finest you will ever see. A regular bowman will shoot arrows that fly until they make contact with an enemy, friend, or terrain. The bowmen have no melee capability but their arrows instantly kill anyone they touch. The Bowmen of Chad are the same, but their legendary skills enable them to shoot three deadly arrows in three directions (one per direction) at once instead.



Spearmen- The spearmen is a simple enemy type who charges forward in a

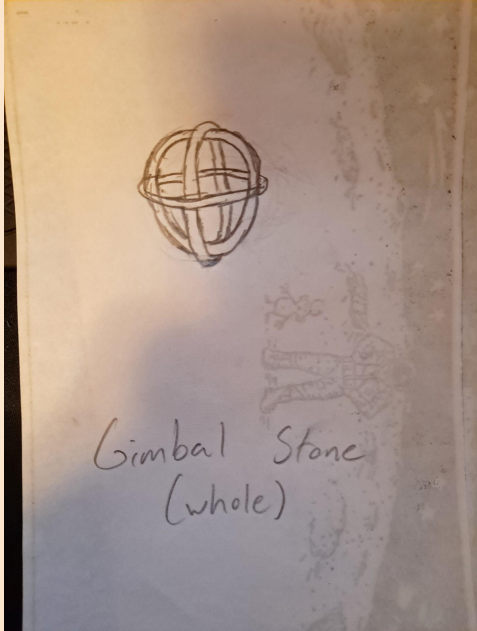
straight line. The spear is deadly to anyone who touches it. The enemy can hurt a unit standing 2 units in front of its spear.

Corrupted Mage- A mage loyal to King Axiana that was corrupted after attempting to combine dark magic with the power of the Gimbal Stone. Now he has lost control and his sanity and will explode with arcane power upon contact with anyone, friend or foe. The wizard runs quickly in a certain direction and will explode on contact. The explosion will be in a radius of 9 squares, with the center being the point of collision and the 8 squares around that being the blast radius.



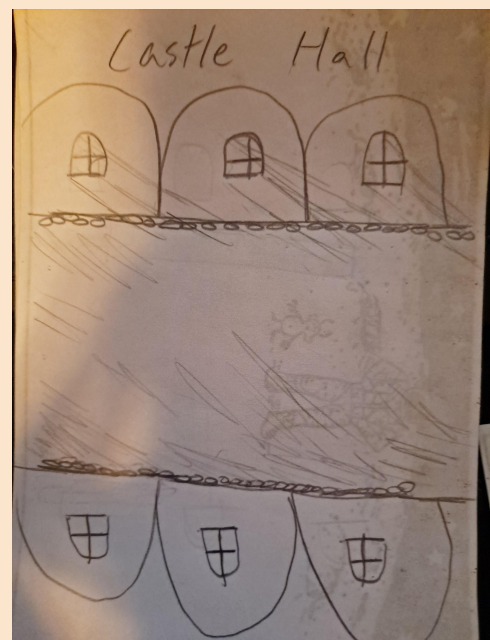
King Axiana- The wicked king who slew Quaternius' mage brethren. He carries in his sceptre the other half of the broken Gimbal Stone and can use it to stop the movement of the player. This can be used in a final boss fight where the player has to fight the king's bodyguard of enemies to get to him while Axiana attempts to freeze time at consistent intervals. Making the challenge of getting to him even harder. However, if the player does make it to him, the king dies with one strike of the Gimblade, just like any other man.

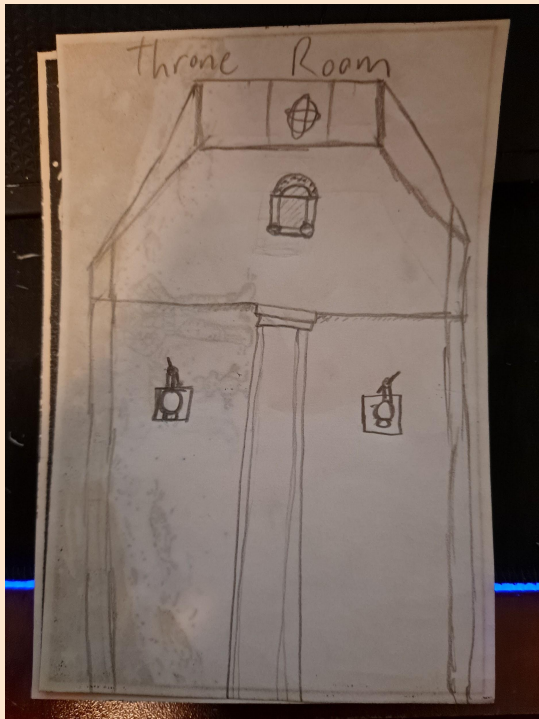
Environment



Gimbal Stone - Primary symbol throughout the game. Although not technically an environment, the Gimbal Stone represents much of the mechanics throughout the game. The Gimbal Stone is an ancient artifact primarily used for channeling the Gimbal Lock spell, but is now fragmented from the war between the new king and the wizards.

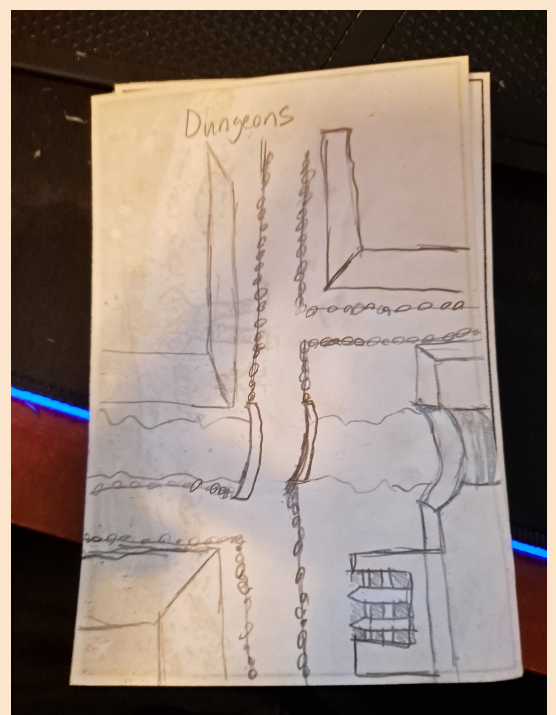
Castle Hall - One of the main environments in the castle. This environment will be used to connect the dungeon and the throne room, and serve as the second “world” for the game. It is rumored that the screams of the fallen mages can still be heard.

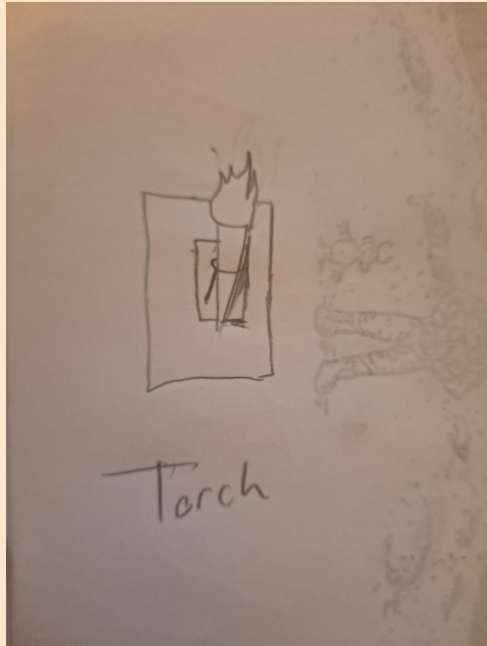




Throne Room - This is the final environment in the game, where the face-off between Quaternius and King Axiona takes place. Statues will be present here.

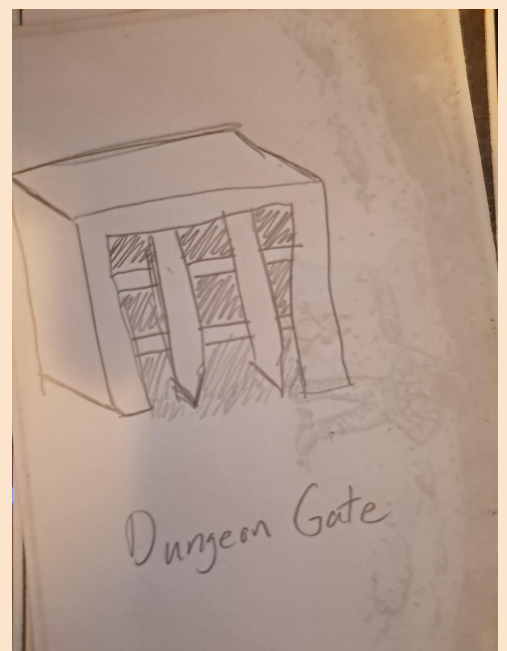
Dungeons - This is the first environment of the game, serving as a sort of tutorial level. Quaternius breaks into the castle from here, and works his way up to the throne room.

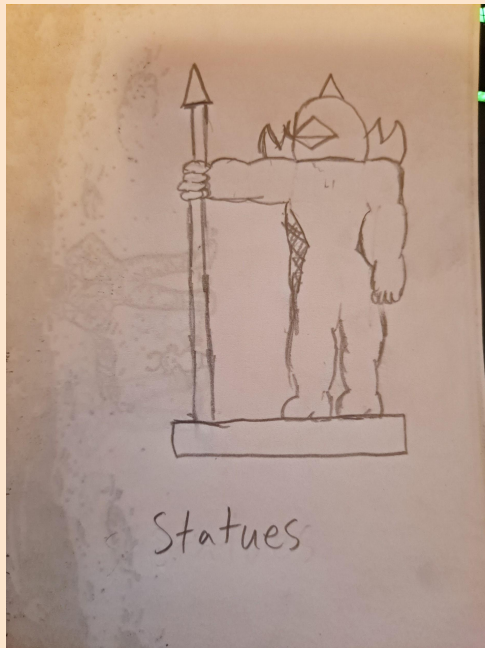




Torch - It's a torch. They line the walls of the castle and dungeon, providing light for our hero.

Dungeon Gate - Decorative scenery for the dungeon sections of the game. May possibly unlock, releasing enemies into the scene.





Statue - Projectiles that hit a statue will be reflected.
Also serves as decoration for the castle.

Animations

(Note all animations require three versions, one for sideways movement and two more for when character are facing towards and away from the camera)

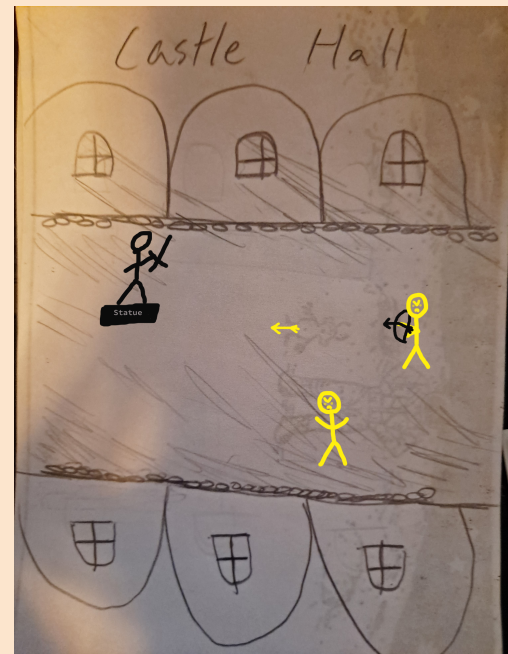
1. **Run (Quaternius)** - Quaternius runs in a given direction.
2. **Attack (Quaternius)** - Quaternius swings his sword in front of him. It should create a clear arc that is 1 unit in size to indicate its range to the player. On hit, there should be hit-stop and a screen shake effect for emphasis.
3. **Gimbal Lock (Quaternius)** - Quaternius raises his blade to the sky, this is then followed by a visual effect. This could be simplified so Quaternius is always facing the camera when doing this so only one animation is necessary. (see below in the visual effects section)

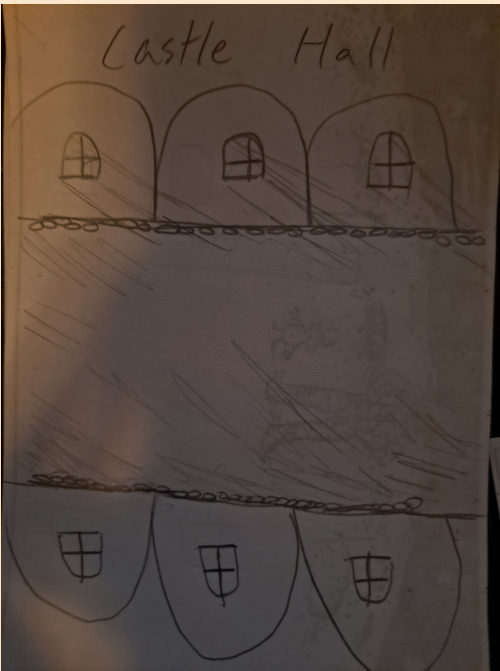
4. **Attack (Knights)** - Knights swing 1 unit in front of them effectively the same as Quaternius.
5. **Attack (Bowmen)** - Bowmen draw back their bows and launch out arrows.
6. **Dazed** - Enemy is stunned after a successful parry and should look dazed for a short duration.
7. **Death** - All characters die in one hit and so they will share the same bloody particle effect animation for dying (to conserve time). If there is time, Quaternius and Axiana could have special death animations.
8. **Run (Knights)** - All knights share the same running animation but the Tower Knights run slower.
9. **Gimbal Lock (King Axiana)** - The King raises his sceptre just as Quaternius does with his sword but the visual effect is applied only to Quaternius.
10. **Idle** - Quaternius will have a short idle animation where he bobs up and down. We can also add idle animations for the enemies, however, given the number of enemies, it would likely be better to prioritize other animations first.

*Note: Archers will be stationary to start to make interaction with them easier as well as to save time on a run animation for them. Also, spearmen and knights will share the same sprite but will have their weapons be children to differentiate them. Spearmen do not attack because they just run forward in a straight line and hope that their spear connects with the player. If they miss, then they rotate back towards the player after a short time.

Visual / Particle Effects

1. Gimbal lock grayscale effect
 - a. When time is slowed, a grayscale effect will be applied over the entire scene.
2. Gimbal lock highlight effect
 - a. During the slowdown/grayscale effect, objects which can be gimbal locked will be highlighted in yellow. Once an object has been gimbal locked, it will remain highlighted for the duration of the effect.

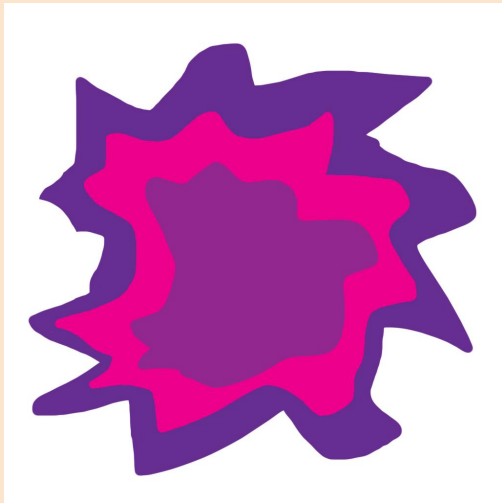




- 3. King Axiana time-stop effect
 - a. When King Axiana has stopped time, a darkening effect is applied over the entire scene

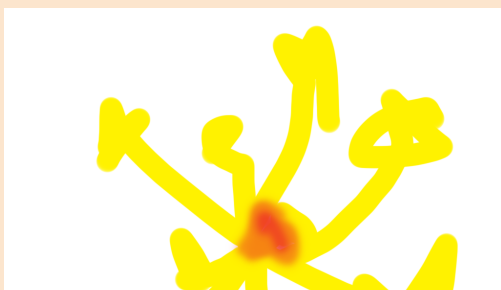
- 4. Explosion of blood as death animation





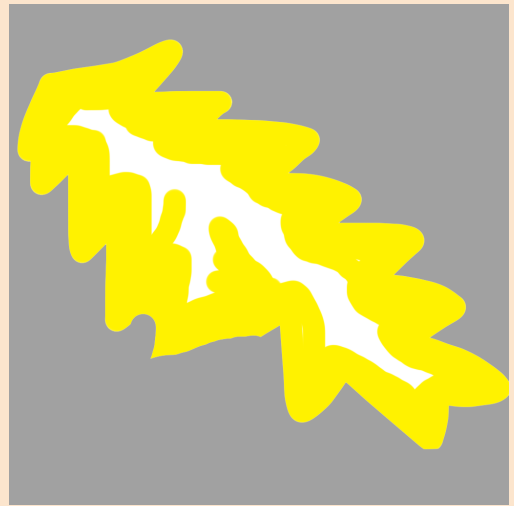
5. Corrupted mage magical explosion on death

6. Bowmen of Chad sparkle effect/trailing rainbow effect
a. Miniature version applies to arrows as well



7. Spark effect when an attack hits a shielded part of an enemy

8. Flash effect for successful parry



9. Dust kicked up from charging spearman

10. Torchlight

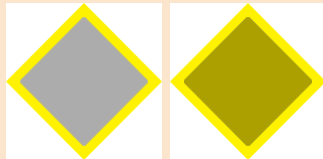
- a. Should be an emission of soft, warm light from the torch

Sound Effects

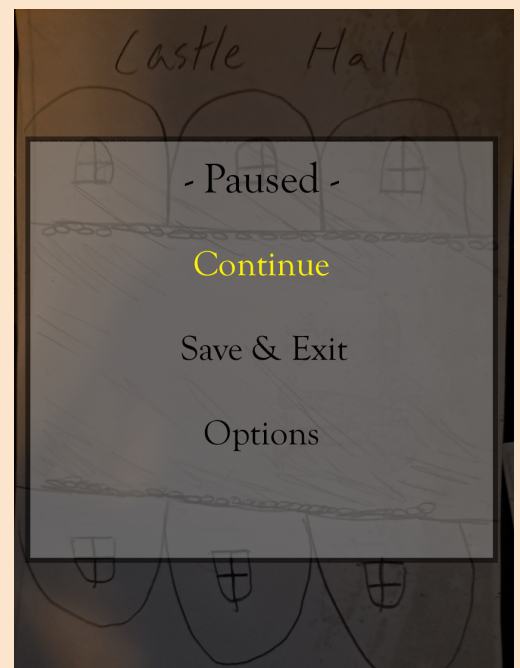
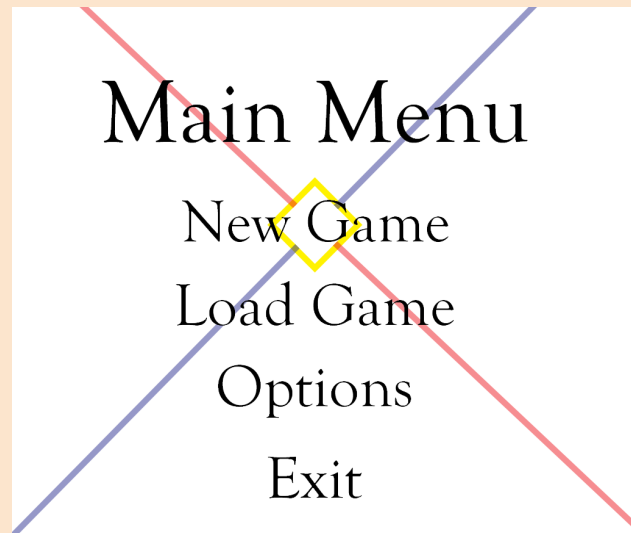
1. Attack shouts/cries
 - a. Quaternius - heroic cry/cries
 - b. Knights - gruff shout
 - c. Spearmen - "Graaaaah!"
 - d. Bowmen - sound of loosed arrow
 - i. (Of Chad) - "Ho ho!"
 - e. Corrupted mage - High-pitched "KYEEEEH!"
 - f. King Axiana - deep shout/grunt
2. Death scream/cry (in the voice of each character)
 - a. Quaternius
 - b. Knights
 - c. Spearmen
 - d. Bowmen
 - i. (Of Chad) - laughs in a Chad-like manner
 - e. Corrupted mage
 - f. King Axiana - "NOOOOOOOOOOOOOOOOOOOOoooooooooooooooo!"
3. Classic sword *swing* sound for melee attack
4. *Chink* sound when melee attack hits armor/shield
5. Chains/lock sound when object is gimbal locked
6. Clock ticking sound during gimbal lock slowdown
7. *Ting* sound on successful parry
8. Stepping on a stone floor
9. Bowman of Chad battlecry-chuckle
10. Gimbal Stone warbling when fully assembled
11. Quiet, ambient mage screams for Castle Hall
12. Bowman of Chad "Get some protein!" voiceline

User Interface

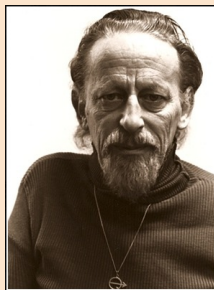
1. Main menu
 - a. New Game
 - b. Load Game
 - c. Options (same layout as main menu)
 - i. Fullscreen/Windowed
 - ii. Remap Controls
 - iii. Volume
 - iv. Back
 - d. Exit
2. HUD
 - a. Gimbal Lock charge indicator (above player)



3. Pause Menu
 - a. Continue
 - b. Save and Exit
 - c. Options



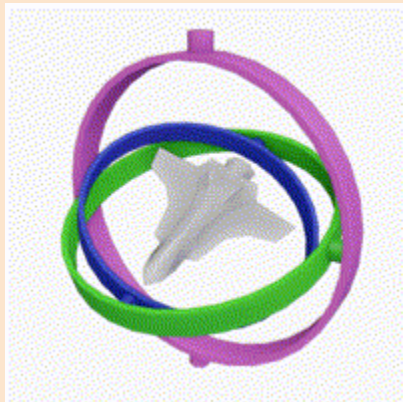
Inspiring Images



Ninety percent of everything is crap.

— Theodore Sturgeon —

AZ QUOTES







"100% of Group 6's work is genius." -Drew Castalia