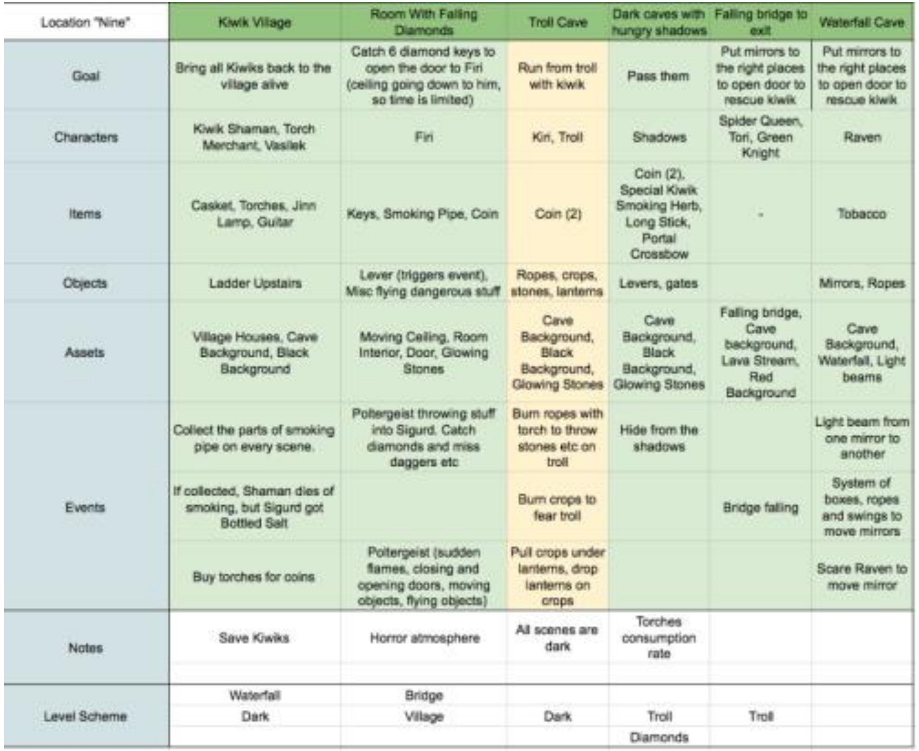
Project Proposal Oct. 9

- Each team can have 5 min. presentation (Be prepare power point slides)
  - Game Title
  - 2D/3D
  - Team members (with initial job assignment)
  - Project Description
    - Game story
    - Game play
    - Game mechanics / level / Controls / Characters / Interfaces
    - Sketch/screenshots
    - Outsourcing
    - USP
    - Game Engine or language(Unity3D, Unreal3D, Game Maker, Godot?
    - Reference videos?

Beat Chart

Describing all level information



Location "Nine"	Kiwik Village	Room With Falling Diamonds	Troll Cave	Dark caves with hungry shadows	Falling bridge to exit	Waterfall Cave
Goal	Bring all Kiwiks back to the village alive	Catch 6 diamond keys to open the door to Firi (ceiling going down to him, so time is limited)	Run from troll with kiwik	Pass them	Put mirrors to the right places to open door to rescue kiwik	Put mirrors to the right places to open door to rescue kiwik
Characters	Kiwik Shaman, Torch Merchant, Vasilek	Firi	Kiri, Troll	Shadows	Spider Queen, Tori, Green Knight	Raven
Items	Casket, Torches, Jinn Lamp, Guitar	Keys, Smoking Pipe, Coin	Coin (2)	Coin (2), Special Kiwik Smoking Herb, Long Stick, Portal Crossbow	-	Tobacco
Objects	Ladder Upstairs	Lever (triggers event), Misc flying dangerous stuff	Ropes, crops, stones, lanterns	Levers, gates		Mirrors, Ropes
Assets	Village Houses, Cave Background, Black Background	Moving Ceiling, Room Interior, Door, Glowing Stones	Cave Background, Black Background, Glowing Stones	Cave Background, Black Background, Glowing Stones	Falling bridge, Cave background, Lava Stream, Red Background	Cave Background, Waterfall, Light beams
Events	Collect the parts of smoking pipe on every scene.	Poltergeist throwing stuff into Sigurd. Catch diamonds and miss daggers etc	Burn ropes with torch to throw stones etc on troll	Hide from the shadows		Light beam from one mirror to another
	If collected, Shaman dies of smoking, but Sigurd got Bottled Salt		Burn crops to fear troll		Bridge falling	System of boxes, ropes and swings to move mirrors
	Buy torches for coins	Poltergeist (sudden flames, closing and opening doors, moving objects, flying objects)	Pull crops under lanterns, drop lanterns on crops			Scare Raven to move mirror
Notes	Save Kiwiks	Horror atmosphere	All scenes are dark	Torches consumption rate		
Level Scheme	Waterfall	Bridge				
	Dark	Village	Dark	Troll	Troll	
				Diamonds		

Beat Chart

- You have to consider how the gameplay unfolds to the player over the course of the game.
- Beat chart :
  - The beat chart is a handy- dandy tool that not only help you develop the content of your GDD, but also provides a “ map ” of the structure of your game

- Beat chard is necessary for real GDD, but it is not required for our project

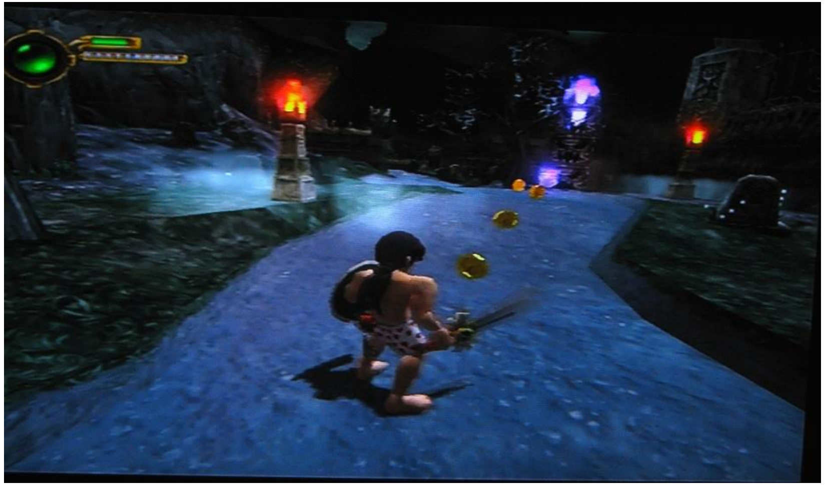
Beat chart

- To create a beat-chart for your game, you will need:
  1. to describe all the parameters required for each location
  2. a list of the game mechanics and content that you want to use
  3. to carefully distribute the content and game mechanics,
  4. avoiding
     1. a) excessive overload
     2. b) obvious gaps
     3. c) boring repetition of game element combination

Elements of Beat Chart

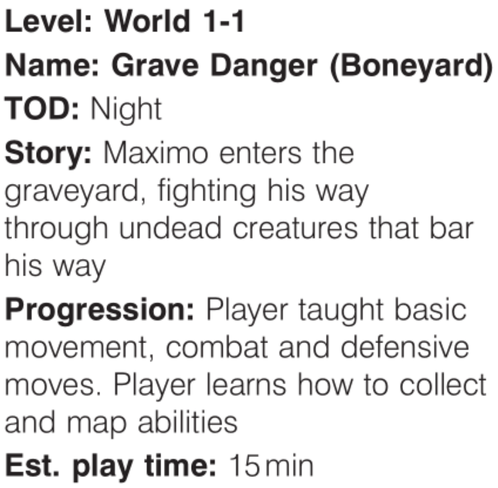
- Level/environment name
- File name (level/environment designation)
- Time of day (in context of the game)
- Story elements for level
- Progression: gameplay focus of the level
- Estimated play time of level
- Color scheme of level/environment
- Enemies/bosses introduced and used
- Mechanics introduced and used
- Hazards introduced and used
- Power- ups found in level/environment
- New abilities, weapons, or gear introduced/unlocked
- Treasure amount and type the player can find
- Bonus material found in level/environment
- Music track(s) to be used in this level/environment.

Example : *Maximo: Ghosts to Glory*



https://youtu.be/oWnDbgB5Q0E

Beat Charts of *Maximo: Ghosts to Glory Level 1 & 2*



Level: World 1-1

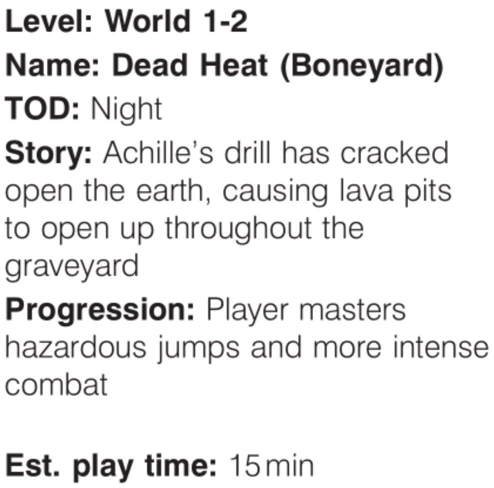
Name: Grave Danger (Boneyard)

TOD: Night

Story: Maximo enters the graveyard, fighting his way through undead creatures that bar his way

Progression: Player taught basic movement, combat and defensive moves. Player learns how to collect and map abilities

Est. play time: 15 min



Level: World 1-2

Name: Dead Heat (Boneyard)

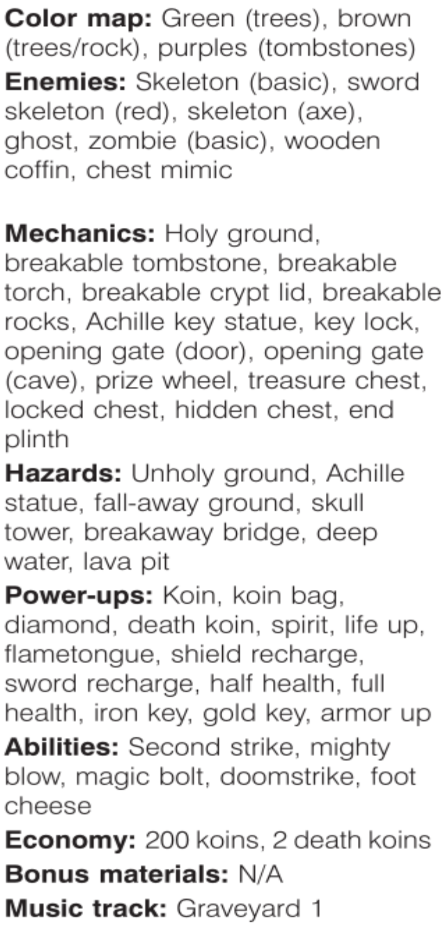
TOD: Night

Story: Achille's drill has cracked open the earth, causing lava pits to open up throughout the graveyard

Progression: Player masters hazardous jumps and more intense combat

Est. play time: 15 min

Continue…



Color map: Green (trees), brown (trees/rock), purples (tombstones)

Enemies: Skeleton (basic), sword skeleton (red), skeleton (axe), ghost, zombie (basic), wooden coffin, chest mimic

Mechanics: Holy ground, breakable tombstone, breakable torch, breakable crypt lid, breakable rocks, Achille key statue, key lock, opening gate (door), opening gate (cave), prize wheel, treasure chest, locked chest, hidden chest, end plinth

Hazards: Unholy ground, Achille statue, fall-away ground, skull tower, breakaway bridge, deep water, lava pit

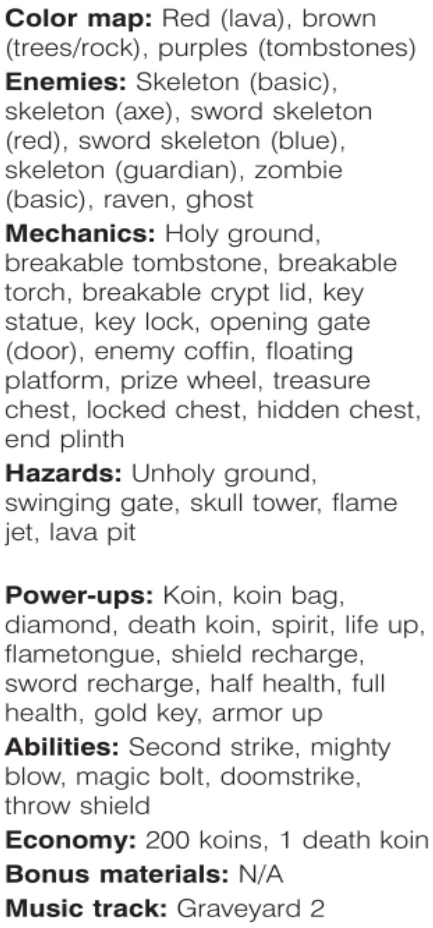
Power-ups: Koin, koin bag, diamond, death koin, spirit, life up, flametongue, shield recharge, sword recharge, half health, full health, iron key, gold key, armor up

Abilities: Second strike, mighty blow, magic bolt, doomstrike, foot cheese

Economy: 200 koins, 2 death koins

Bonus materials: N/A

Music track: Graveyard 1



Color map: Red (lava), brown (trees/rock), purples (tombstones)

Enemies: Skeleton (basic), skeleton (axe), sword skeleton (red), sword skeleton (blue), skeleton (guardian), zombie (basic), raven, ghost

Mechanics: Holy ground, breakable tombstone, breakable torch, breakable crypt lid, key statue, key lock, opening gate (door), enemy coffin, floating platform, prize wheel, treasure chest, locked chest, hidden chest, end plinth

Hazards: Unholy ground, swinging gate, skull tower, flame jet, lava pit

Power-ups: Koin, koin bag, diamond, death koin, spirit, life up, flametongue, shield recharge, sword recharge, half health, full health, gold key, armor up

Abilities: Second strike, mighty blow, magic bolt, doomstrike, throw shield

Economy: 200 koins, 1 death koin

Bonus materials: N/A

Music track: Graveyard 2

By comparing two levels, we can move some elements around, filling holes

Beat Chart Comparison.

- By comparing several levels,
  - If too many new enemies or mechanics being introduced at once. Spread these out over the course of the game
  - If too many identical. You want to mix things up to keep interaction fresh combinations of enemies and mechanics
  - Alternate your time of day and color schemes
  - Alternate your music tracks
  - Make sure players have enough money to buy items to use in the world
  - Mechanics and enemies should be introduced in conjunction with the items and abilities required to defeat them.
  - All weapons, all skills, all vehicles, all armor upgrades, etc.? Make sure the player has time to play with them.

Three Cs – Character, Camera, Control,

Three fundamentals that need to be established early in your preproduction

Three –Cs.

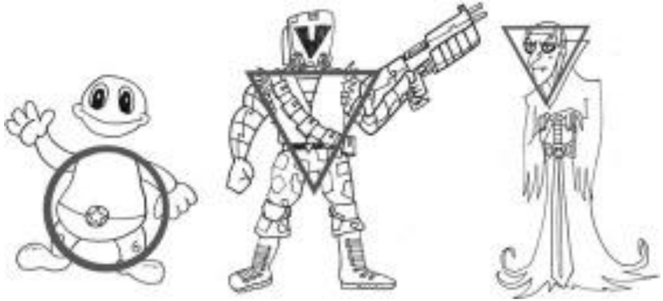
- If you change any of the three Cs during the course of your production, you risk massive problems with your gameplay, which may require extra reworking, and you risk endangering your game

- Fix these thee Cs early production stage.

Characters

Character

- Need to think about how the character is presented to the player and the activities the player does with that character
  - Physical Appearance
    - Must be significantly different for each character
  - 3 Personalities
    - Humorous
      - □ Do funny things, Say funny things, Look funny
    - Heroic
      - □ Does heroic things, always good at something
    - Tough guy
      - □ Do hardcore things, Isn't nice person, Looks like bad guy
  - Actions
    - Run, jump, walk…

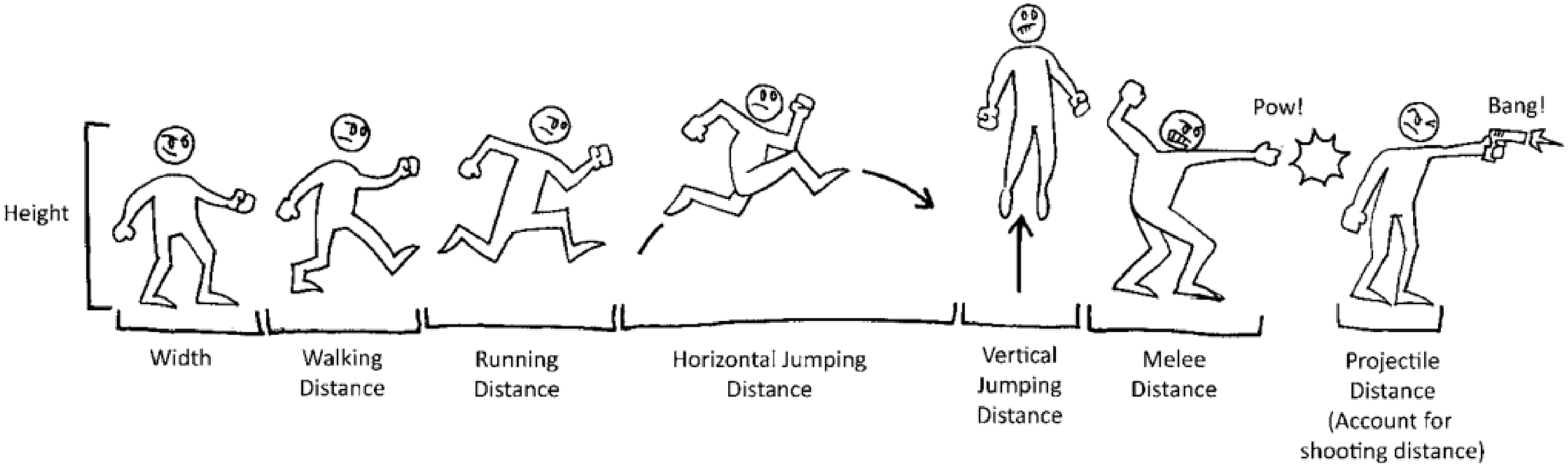


Customization

- Give the players options for personalization. Allow the players to customize any of the following:
  - Name—Not just of character, but of weapons, vehicles
  - Appearance—Hair/skin/eye color, ethnicity, height, weight
  - Clothing, armor and gear—Style, color, texture
  - Weapons—Appearance, decoration, ammo loads, special effects

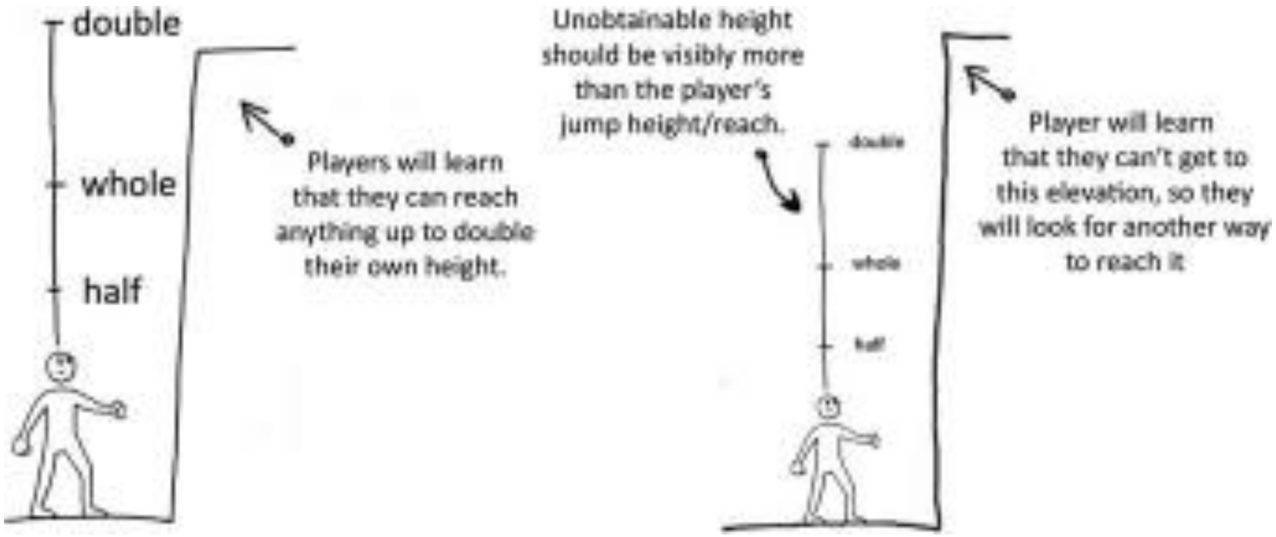
Actions of Characters

- Metric : Metrics are especially important to players as they use them to gauge movement : “1 unit”
  - Metrics to determine:
    - Height: the height of the player character
    - Width of passage: usually wider than the player character
    - Walking speed: how far the player walk per second or unit of time
    - Running speed: same as above, but faster
    - Jump distance: usually farther than a walk, but not as far as a run; can also be based on the player’s width (such as 5 player units across)
    - Jump height: based on the player’s height — a jump is half the player’s height, while a double jump can be twice as tall as the player
    - Attack distance: usually not much farther than the length of the player ’ s arm and weapon



Height
Width
Walking Distance
Running Distance
Horizontal Jumping Distance
Vertical Jumping Distance
Melee Distance
Pow!
Bang!
Projectile Distance (Account for shooting distance)

Distance measure



Players will learn that they can reach anything up to double their own height.

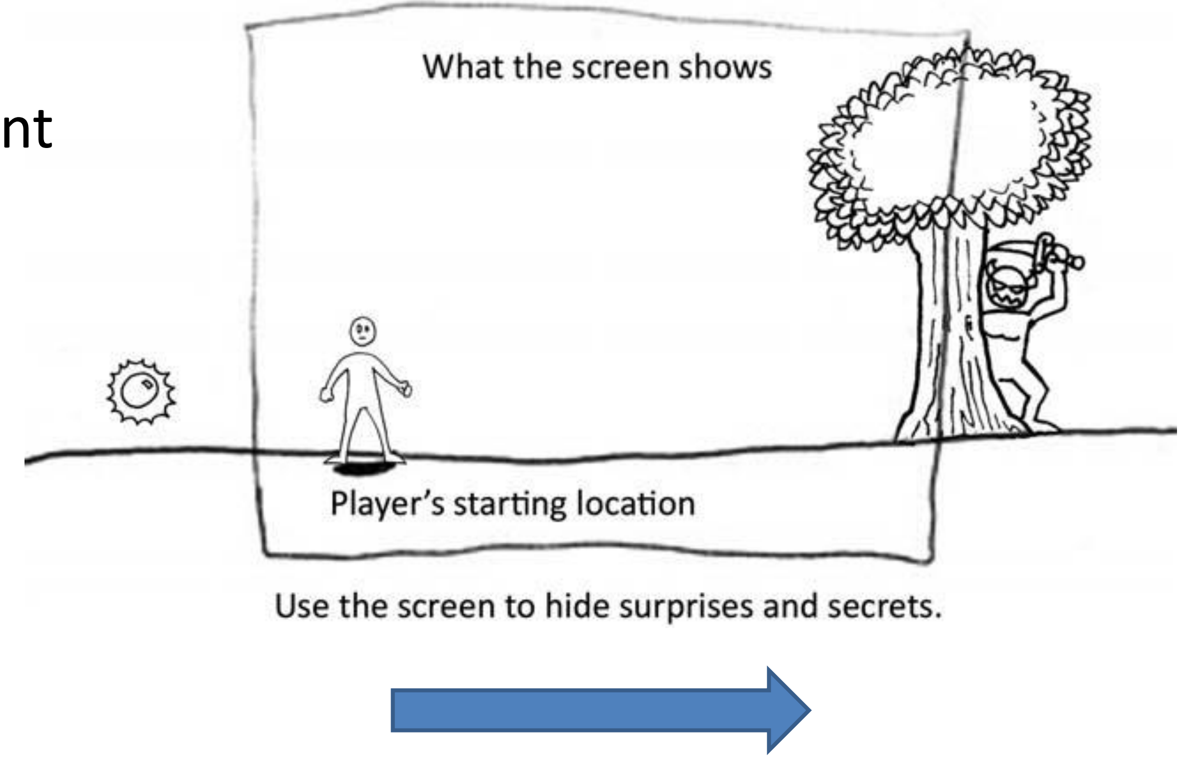
Unobtainable height should be visibly more than the player's jump height/reach.

Player will learn that they can't get to this elevation, so they will look for another way to reach it

The cliff ledge shown in the above graphic is obviously completely unobtainable with a normal jump/double jump distance

Height measure

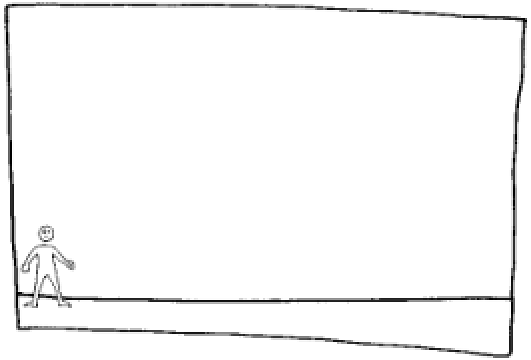
movement direction



Use the screen to hide surprises and secrets.

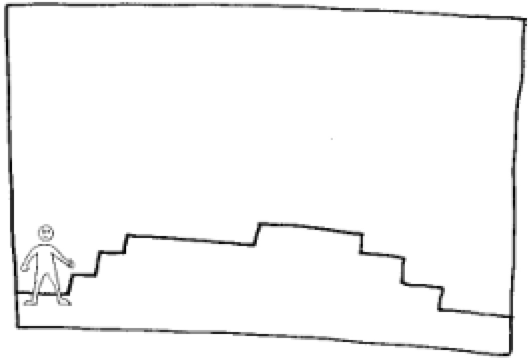
Make the player go from left to right, (even though there are goodies on the left side). making the player walk to the left makes people feel “ ill at ease ” and can be used to psychological effect.

(x)



When you can have this?

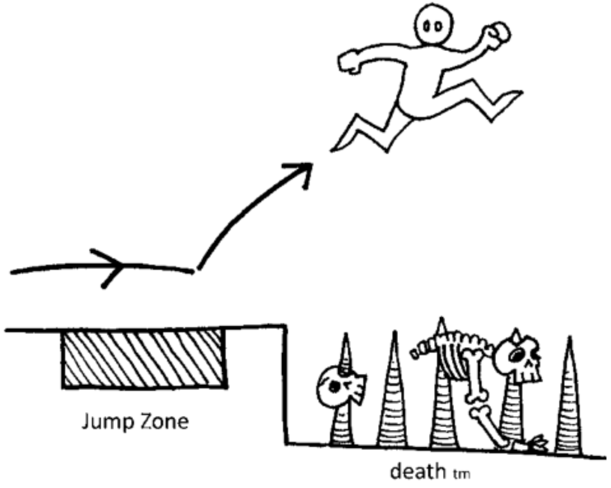
(o)



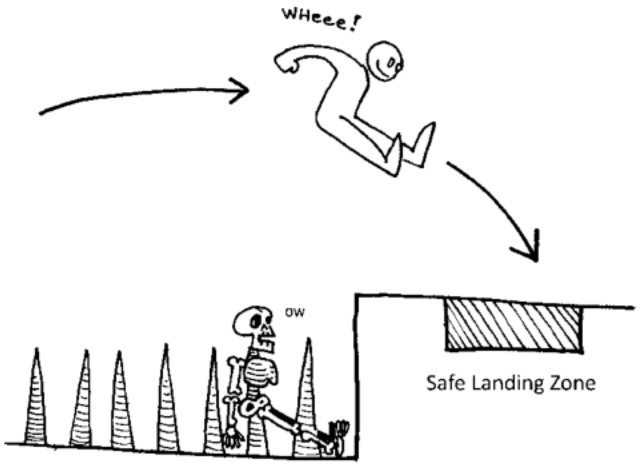
Make the character do something interesting action. Just let them do a long plat walk is not good.

Jumping

- Single jump:
  - The player jumps once — either vertically or horizontally.
- Double jump:
  - A second vertical or horizontal jump that is chained after the initial jump.
- Triple jump:
  - A third jump that can be done after the second jump, usually requiring something for the player to bounce off of and most often horizontal.
- Contextual jump:
  - An " automatic " jump that happens when the player approaches a pre - tagged area such as a ledge.
- Wall jump:
  - A special case jump that is performed after the player jumps " into " or towards a wall. If the player presses a button as they collide with the wall, they will jump off of the wall in the opposite direction.



People don't jump at the edge. They jump at so called jump zone.



Safe landing zone is usually <u>half length of jump</u> length to the very edge.

Walking is a bad thing….

- Make the character running instead of walking. It makes game more dynamic.

Advices for designing characters

- When you are designing your character, try using him or her to communicate information to the player.
  - Think about it: a player spends the majority of their time looking at the character. What better way to display their in-game status?
  - Movement
    - Give subtle motions, like the character's head turning to look at interesting and intractable items in the world
    - Make a character automatically reach out for pickups or door handles.
    - Make your character respond positively to favorite things, negatively to perilous things
    - A player's health can be reflected by their movement. When they are out of power, they must be looked like that.

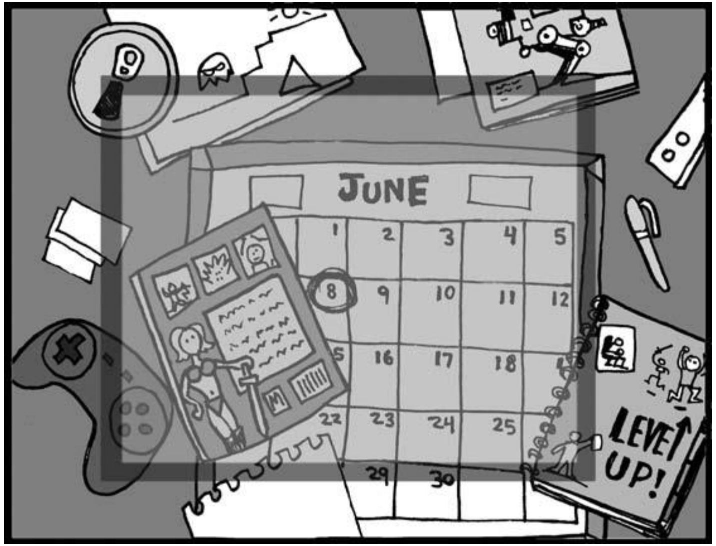
Advices for designing characters

- Appearance
  - Make a player's health be reflected by their appearance
  - Use visual effects to represent state. Have wounded characters bleed out, leak oil, or shoot out sparks.
- Inventory
  - Player's gear can be part of the character, rather than hidden within an inventory screen.
  - Any major ability upgrade should have a model and/or animation component to it.
- Weapon
  - Rather than just adding a +3 upgrade to a weapon, give it a physical manifestation of that new power
  - If you don't want to change the weapon's appearance, consider changing the animation of the player character.

Camera

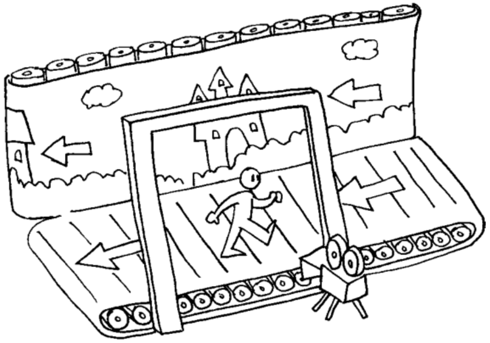
Setting up a Camera

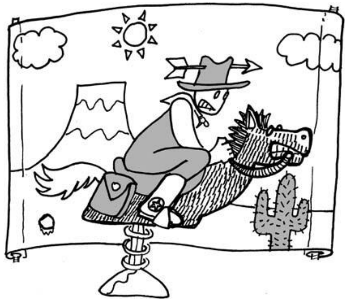
- Choosing the right camera for your game is not only very important for determining how to program the camera, but it also impacts how you design your game, map your controls, and create your artwork
  - Static camera : camera does not move.
  - Scrollable camera :
    - Can keeps the player engaged in the act of moving the camera
    - Allowing you to hide stuff off screen or reveal it in a big dramatic way



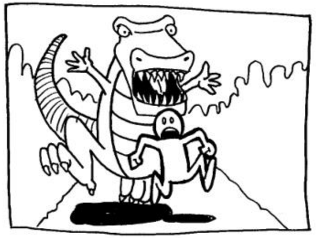
Setting up a Camera

- Parallax scrolling :
  - As a parallax scrolling camera moves, the world moves with it.
    - □ plain scrolling : The camera is controlled by the player’s movement the player: essentially stays in the center of the screen as the world moves past them just like in those old - fashioned western films.
    - □ Forced scrolling : The player is forced to “ keep up ” with a scrolling camera (Temple run)





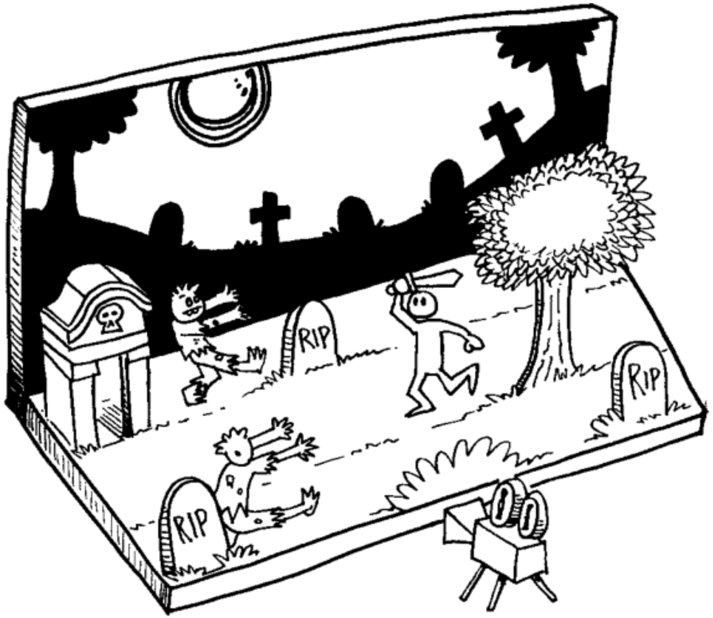
Plain scrolling



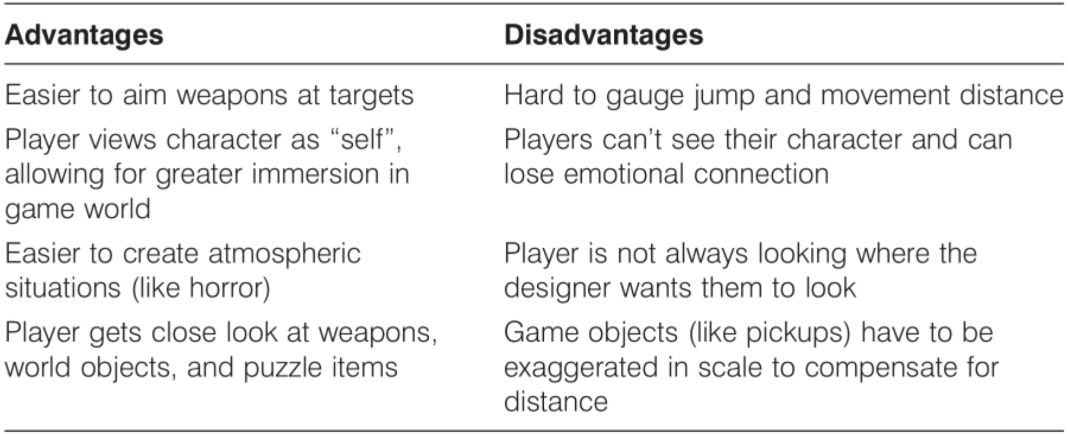
Forced Scrolling

Setting up a Camera

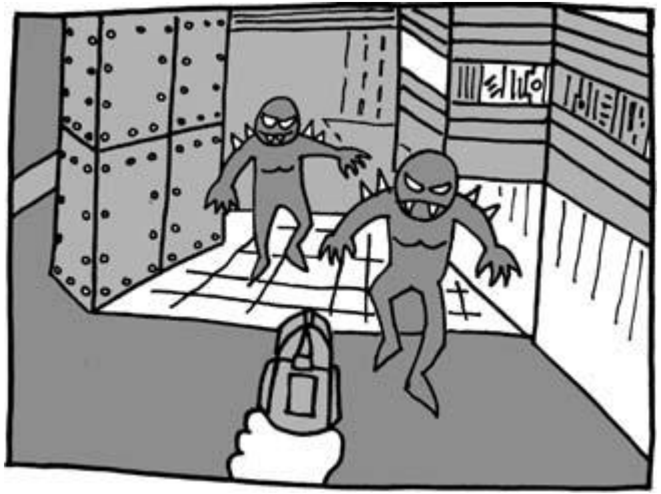
- Multi-plane Camera
  - Gives the illusion of depth by zooming the camera towards and away from the screen.



First Person Camera



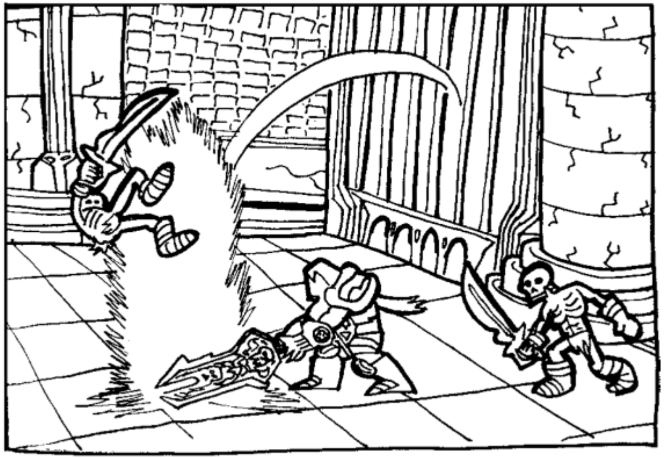
Advantages	Disadvantages
Easier to aim weapons at targets	Hard to gauge jump and movement distance
Player views character as “self”, allowing for greater immersion in game world	Players can’t see their character and can lose emotional connection
Easier to create atmospheric situations (like horror)	Player is not always looking where the designer wants them to look
Player gets close look at weapons, world objects, and puzzle items	Game objects (like pickups) have to be exaggerated in scale to compensate for distance



Can cause DIMS : stands for Doom - induced motion sickness

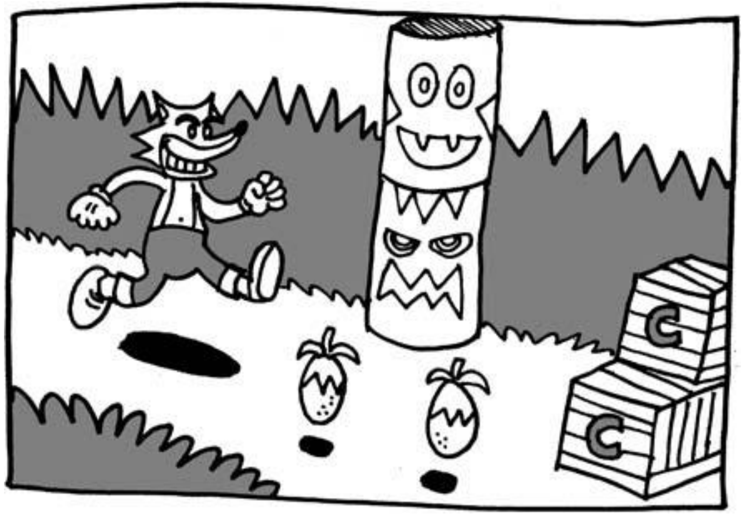
Third Person Camera

- A third person camera lets the player get a better view of the world, the action, and what's coming up behind you.
  - Getting a third person camera to work correctly may be the biggest challenge a team has to face
  - Automatic Control
    - Some times, it pass through some object
    - Suddenly flipped
  - Manual Control
    - Full control
    - Free - look camera
      - □ allows the player to stop and look around the world (effectively a first person view)



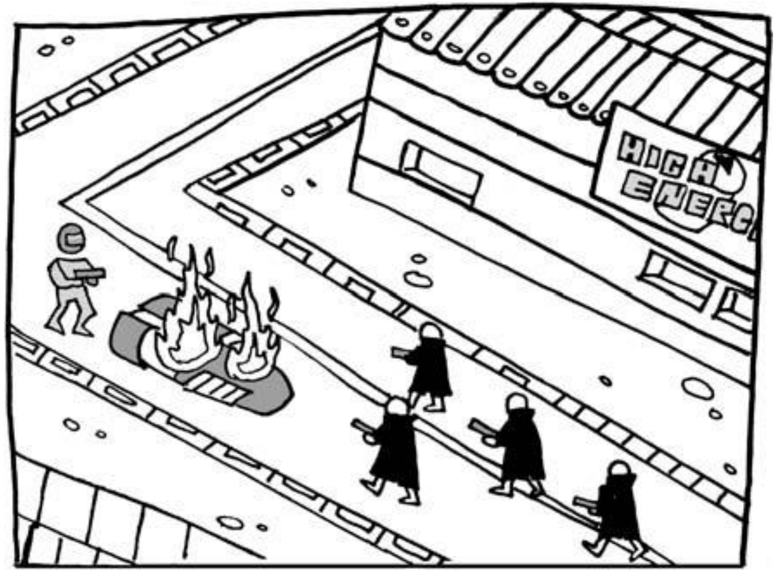
2.5D Camera

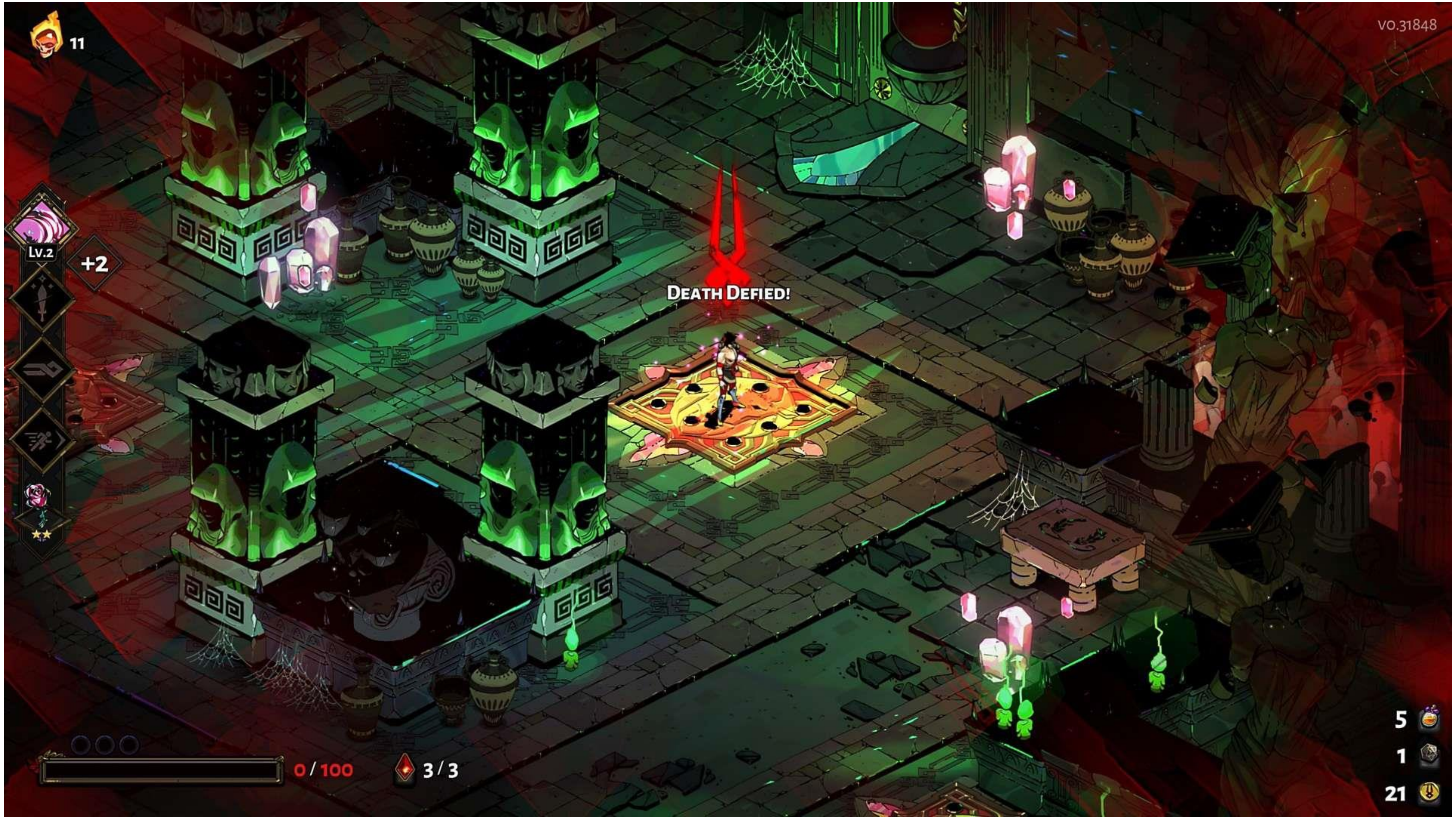
- Take two dimensional platform gameplay and move it into the third dimension
  - Uses 3D character and world models but limits the camera movement in the same manner as a bi-dimensional game: up, down, and in/out on the Z- axis.



Isometric Camera

- Not quite side view and not quite top down, the end result creates a rather toy- like view of the world
  - With smooth scrolling 3D world on a 2D display, contribute to why the isometric view is popular with building and simulation games.
  - Players get a quick snapshot of an environment's layout and the relationship of items within it.
  - Determining whether something is higher up and closer than something farther away and lower can be difficult

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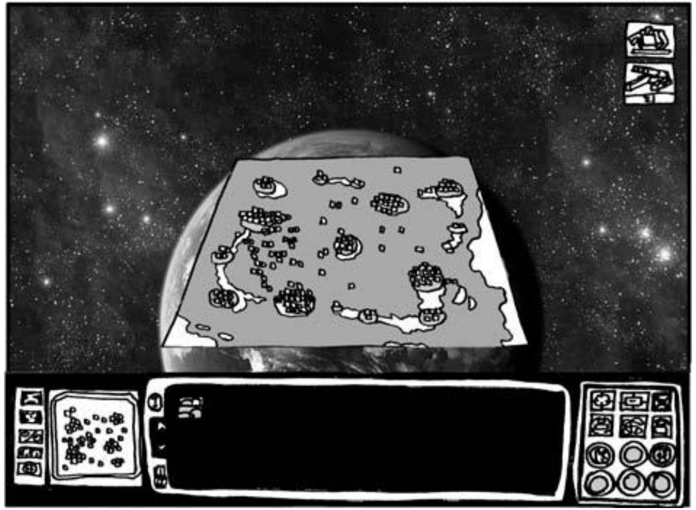
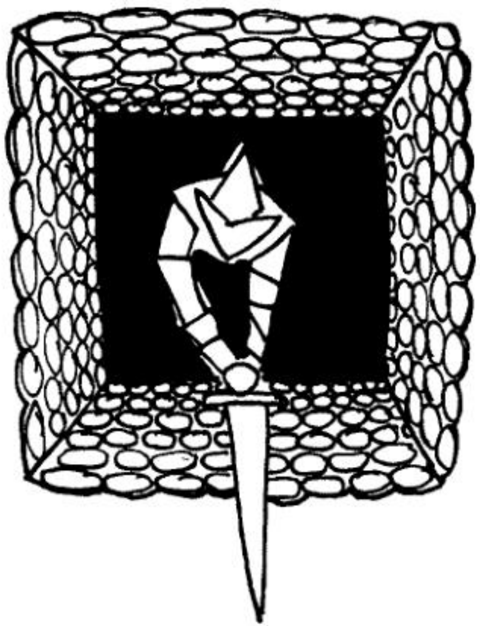
vo.31848
Lv.2
+2
Death Defied!
0 / 100
3 / 3
5
1
21

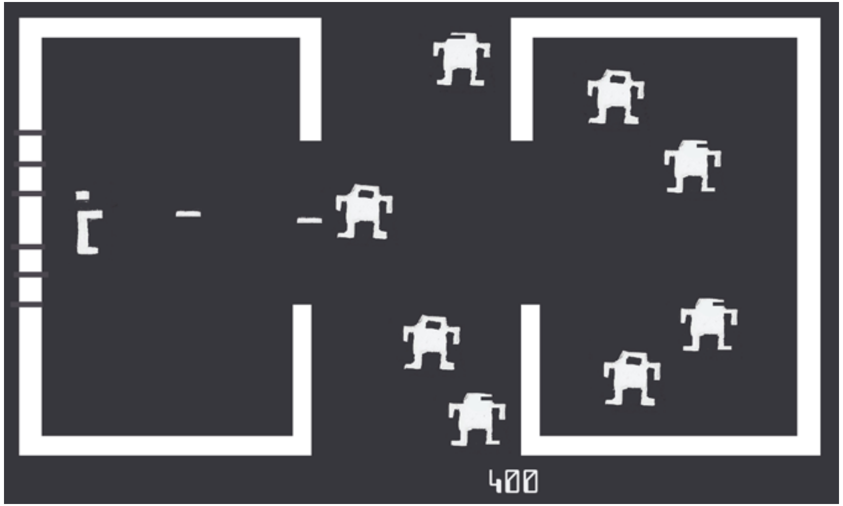
God view

- If details aren’t important, then the God view is good.
  - God view is essentially an isometric camera, but the player is given a wider field of vision over the world, sometimes as high as low orbit.



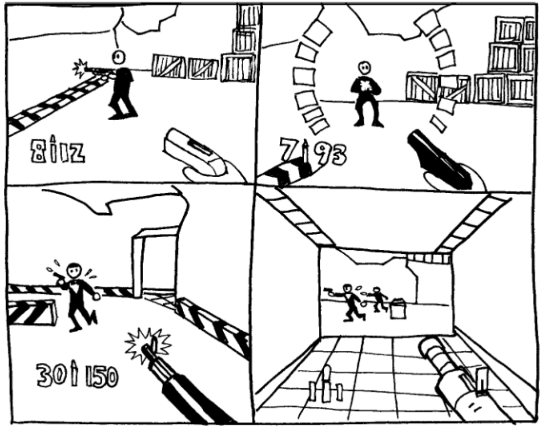
Top-down view / Side-view



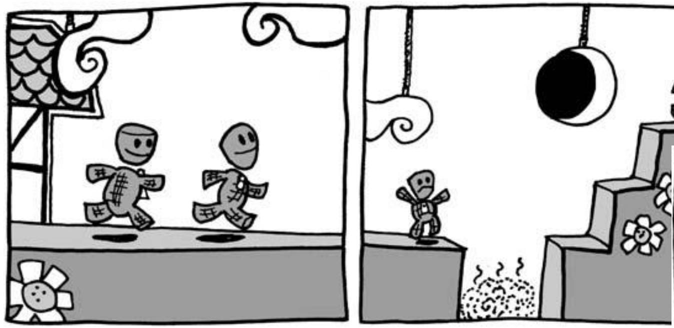


Multiplayer?

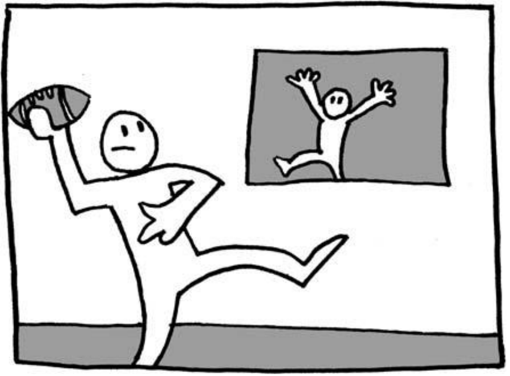
- What if you have more than one player? Where we put the camera?



Split the screen



Auto Zooming screen

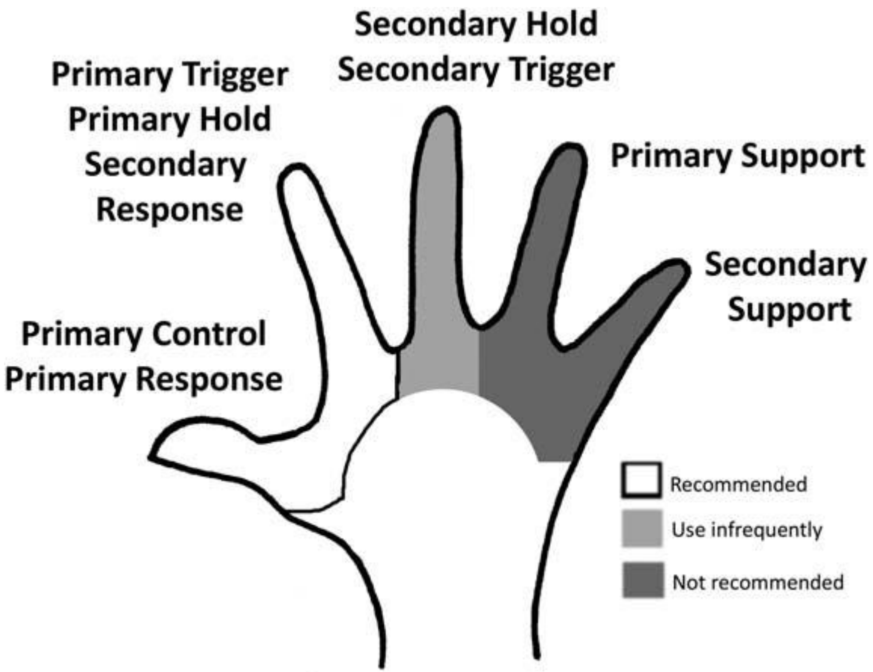


PIP

Control

Control

- You have to remember that humans are playing these games
  - When you are designing controls, try establishing design rules for your controls schemes based on hand placement



Thumb: flexible with reach. Good for steering and fast response.

Index: strong and fast. Used for response or hold moves.

Middle: weaker but usable for hold moves. Decent reach.

Ring: weak with poor reach. Better for stabilization

Pinkie: poor strength, reach requires hand support.

Control for games

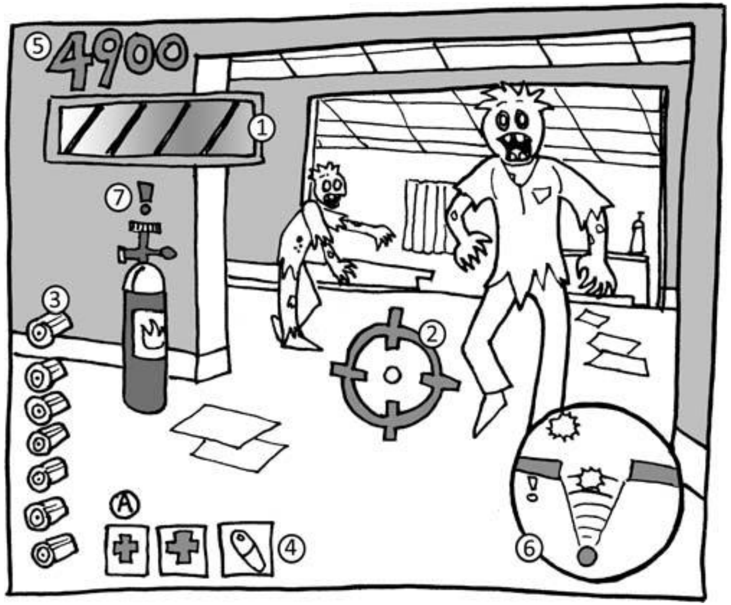
- Think about how the player is going to move those fingers over the controller. Avoid repetition and strive for an uncomplicated control scheme.

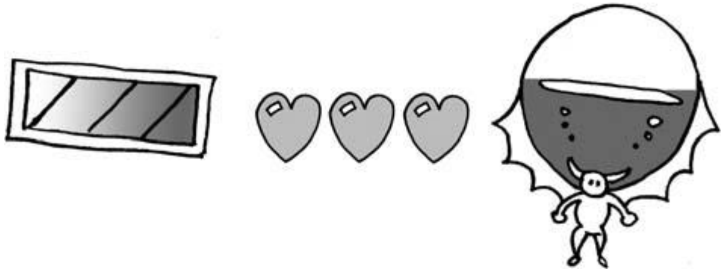
  - The control need FAST response.

HUD and ICON design

HUD (Head-Up Display)

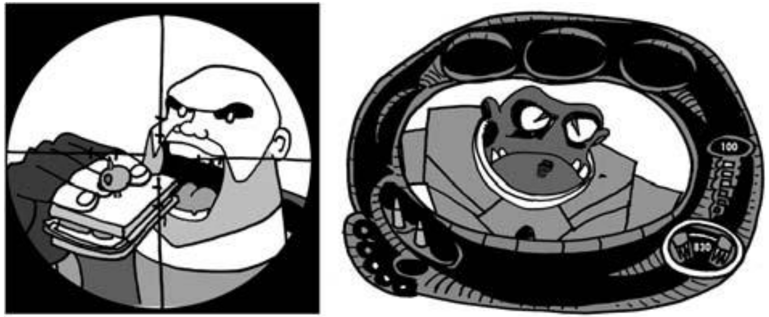
- The HUD refers to any visual element that communicates information to the player
  1. Health bar/lives
  2. Targeting reticule
  3. Ammunition gauge
  4. Inventory
  5. Score/experience
  6. Radar/map
  7. Context- sensitive prompt.





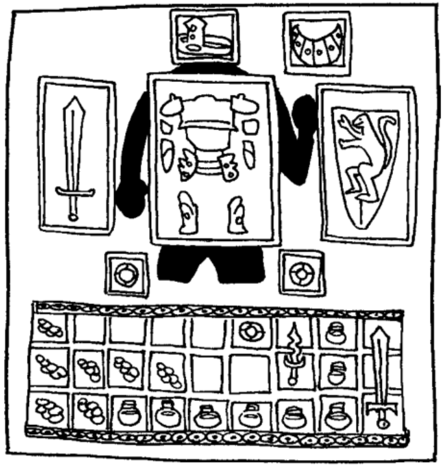
the health bar represents how close the player is to death, or having to restart for some other reason.

Always display the ammo gauge of the weapon currently armed by the player



sights can be simple or complex

Don’t make it too small
Change color or “ sharpen focus ” when over a target.

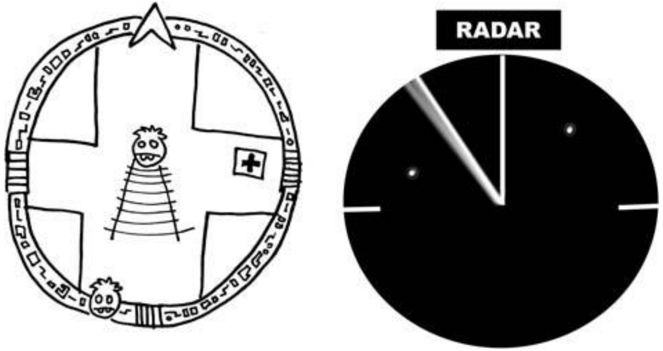


Use hotkey or drag&drop

SCORE
150
Achievement Unlocked
10G - You have reached Chapter 8

Use voice and sound effects to call attention to whenever a player gets a reward..

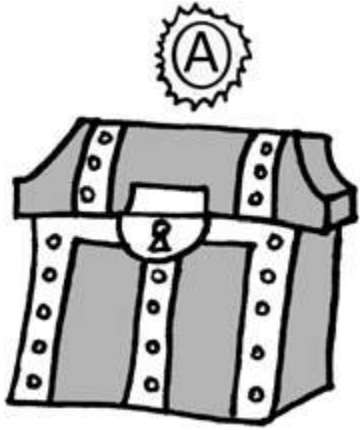
The player needs to see a clear " cause and effect " for scoring, so they understand how they achieved their score.



Make your map large enough to be legible, but not so big it fills up the whole screen
Show the player's direction using an arrow or some other icon

The context - sensitive prompt is an icon or text that appears when the player is next to an object or character with which it interacts

Show the player ' s direction using an arrow or some other icon

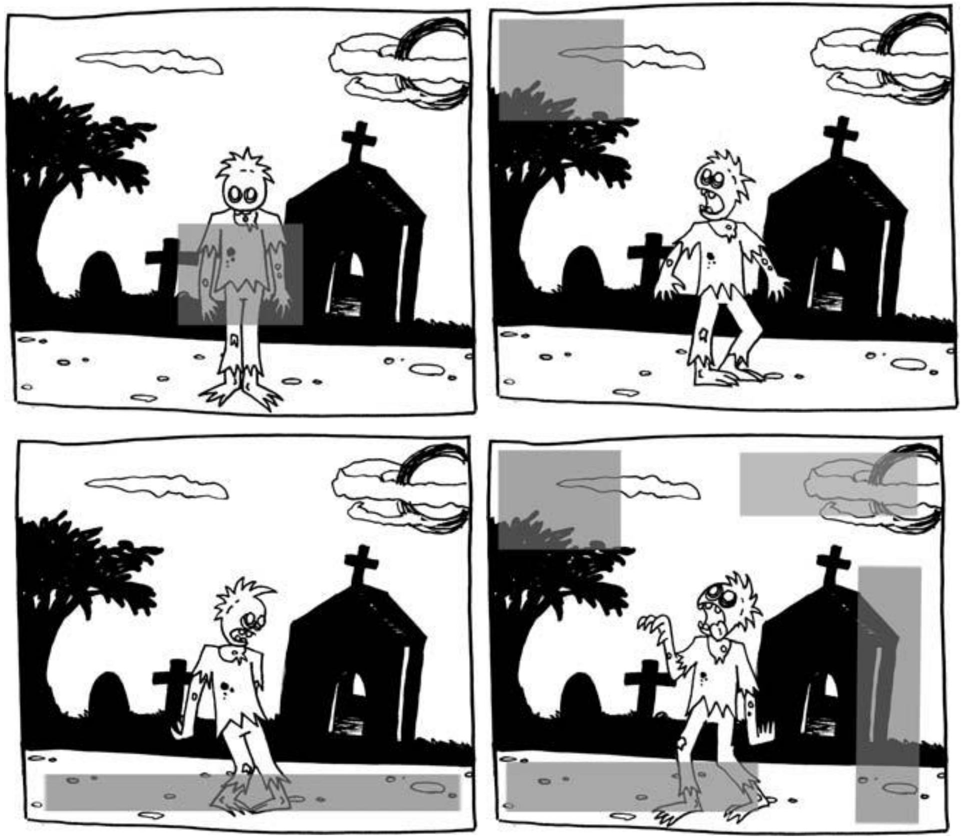


Tips for using Icons for games

- Pick the right image for your icon
- Make sure the image that you use is current and accurate
- Color- code your icons : Fiery punch? Make it red! (Or at least orange.) Chilling hand of frost? (blue)
- If color isn't enough, then use shapes
- Try and avoid text in your icons
- Never, ever combine several visual elements : Text & image….
- Look at all of your icons together to make sure you aren't creating any similar- looking ones
- Don't leave creating icons to the programmers
- Learn from the experts. Apple, Adobe, and Microsoft
- When the player selects the icon make it do SOMETHING. Change color, make a clicky sound effect
- The most important button on the interface should be the biggest
- Make the most- used buttons easy to reach from the middle of the screen

Where do you put them?

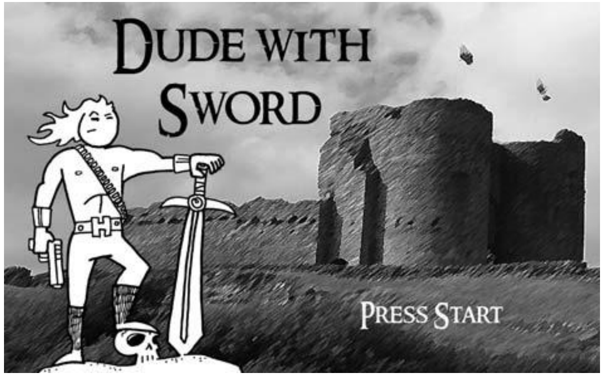
- Refrain from putting your HUD in the middle.
- The upper left side of the screen is traditionally used for the most important information: health, score, and so on.
- Displaying icons along the bottom of the screen works well too, as long as you watch out for clipping that can occur depending on device resolution
- If you are going to have lots of icons on screen, why not consider letting the player choose which ones they want and prioritize where they should go



Other screens to show

- Title screen : The title must show main “theme” of the game

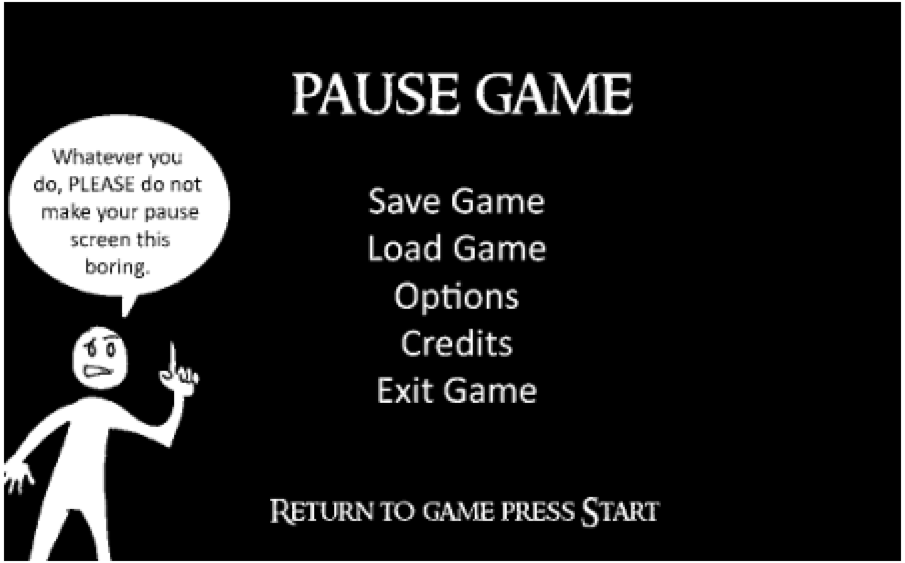
DIE ZOMBIE DIE!
Press Start



RELIC RAIDER
PRESS START

Other screens to show

- Pause screen :The well - designed pause screen can do more than give the player a break. It can be used to save a game, access the options screen, game map or inventory screen


PAUSE GAME
Whatever you do, PLEASE do not make your pause screen this boring.
Save Game
Load Game
Options
Credits
Exit Game
RETURN TO GAME PRESS START