

Game Design Semi-Inspirational Talk



Some Slides Courtesy of Chris Murphy of Epic Games

Star Dew Valley history is taken *from Blood, Sweat, and Pixels* by Jason Schreier



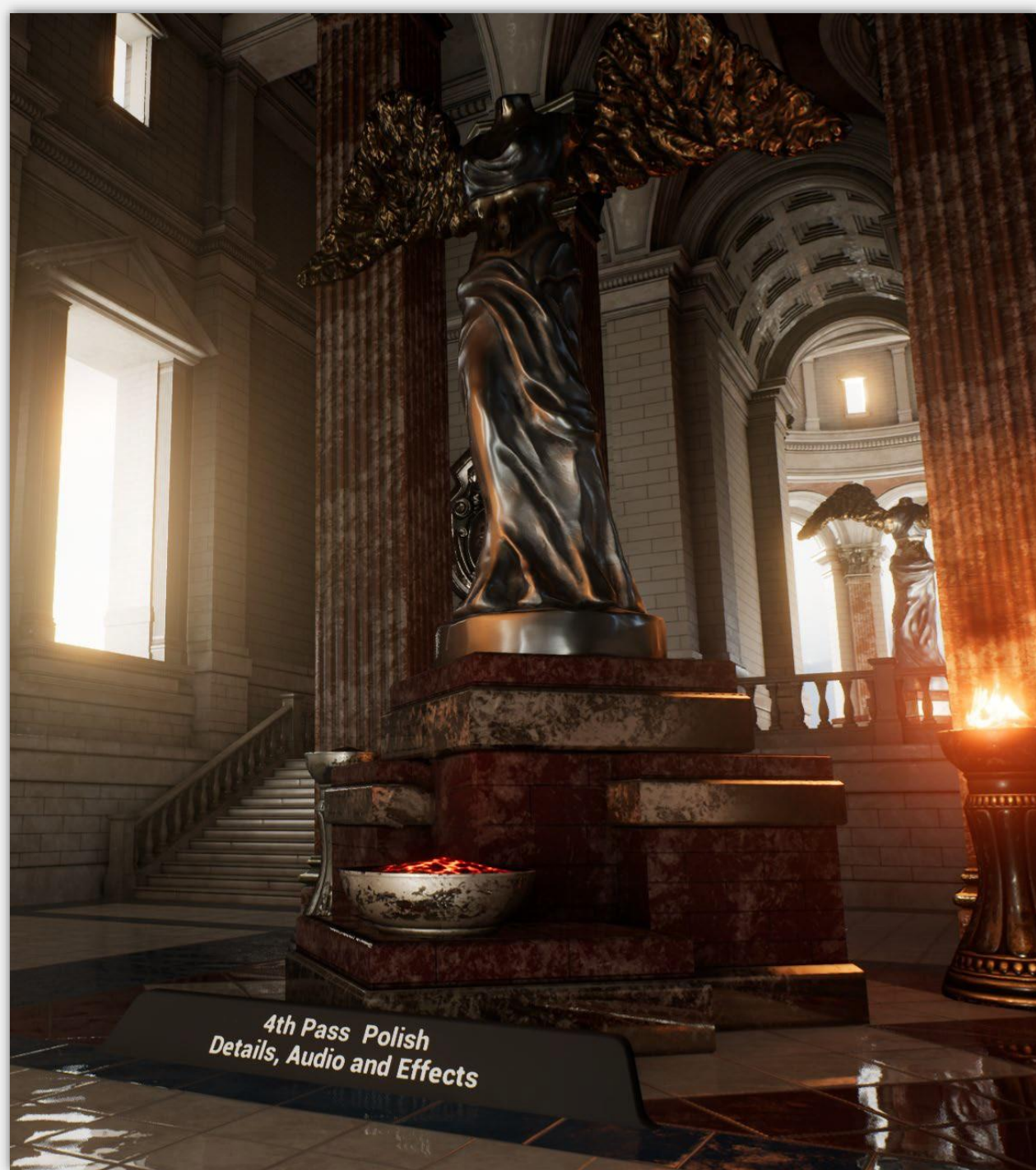
**It's possible to break
up the core elements
into categories.**

- **Space**
- **Goals**
- **Actors**
- **Mechanics**
- **Rules**

SPACE

The space is the environment in which the gameplay will take place. This description applies to both aesthetics and the design of the space.

- Will the space be 2D or 3D?
- How will cover and other environmental factors alter other design elements?
- Will the gameplay take place in large open spaces or in tight corridors?



GOALS

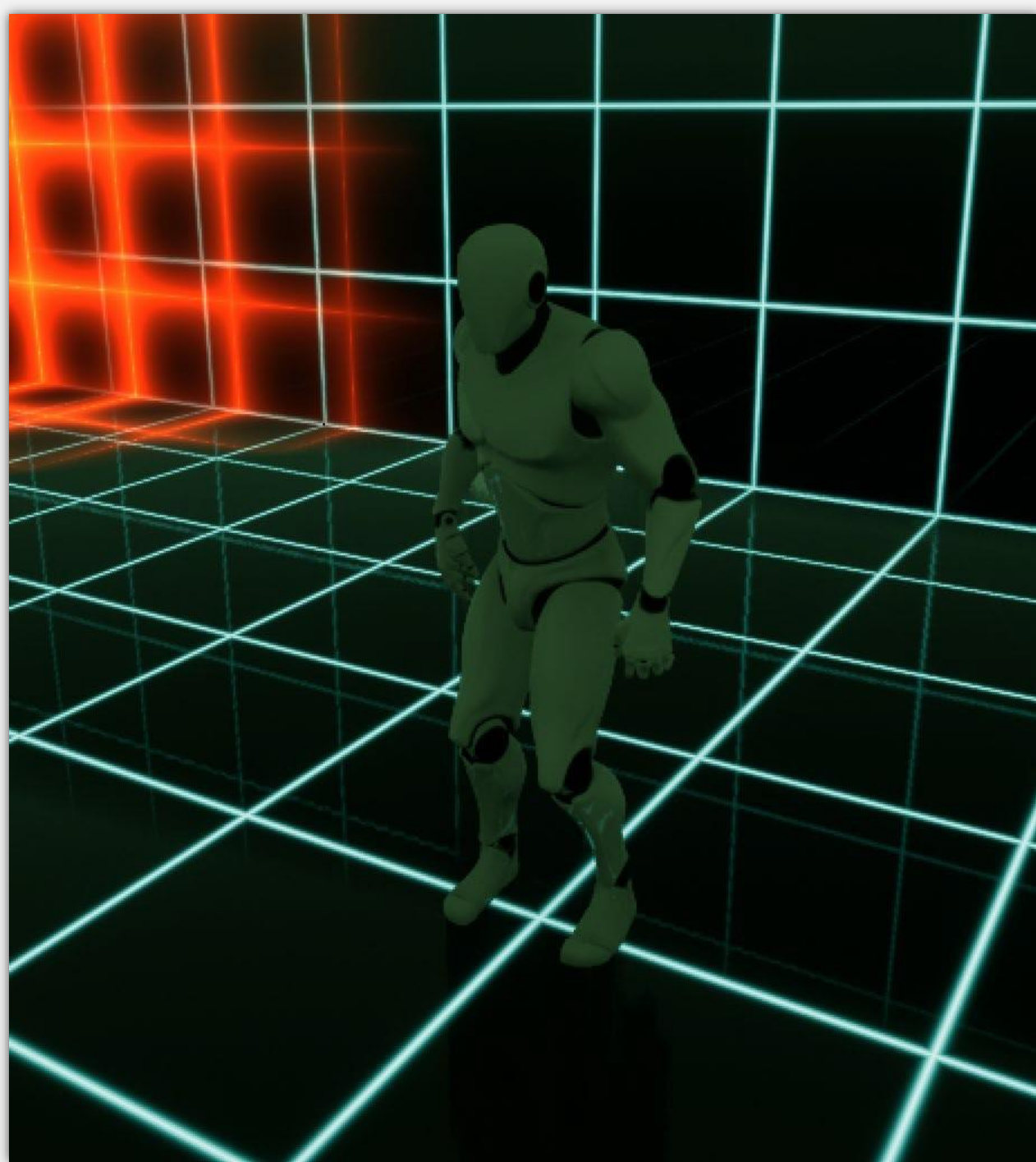
The goals are what players must do to win or complete a game and represent the overall objectives to players. Should the player be completing a circuit? Knocking enemy players from the arena?



ACTORS

Actors are the main components within a game. They are the objects that are interacted with and controlled within the environment.

Players, weapons, and pickups are common types of actors.



MECHANICS

Mechanics detail the actions that a player or other actors can do during the game. Sometimes mechanics are designed for compatibility between one another. For instance, while a player may be able to jump and slide, a new mechanic may be borne from sliding when landing.

Jumping, sliding, diving, and firing projectiles are all considered as different mechanics.



RULES

The rules describe how to play the game and the constraints in the game world. What must the players do to achieve their goals? What should they be wary of? What happens when a rule is broken? What happens if a rule is consistently adhered to?



Stardew Valley



Stardew Valley

Video game

10/10
Steam

4.6/5
Google Play

4.9/5
App Store -
Apple

Stardew Valley is a simulation role-playing video game developed by Eric "ConcernedApe" Barone. Players take the role of a character who takes over their deceased grandfather's dilapidated farm in a place known as Stardew Valley. [Wikipedia](#)

Initial release date: February 26, 2016

Designer: [Eric Barone](#)

Developer: [ConcernedApe](#)

Platforms: Nintendo Switch, Android, PlayStation 4, macOS, [MORE](#)

Genres: Indie game, Role-playing video game, Adventure game, [MORE](#)

Stardew Valley is open-ended, allowing players to take on activities such as growing crops, raising livestock, fishing, cooking, mining and foraging, and socializing with the townspeople, including the ability to marry and have children. It also allows up to four players to play online together.

Stardew Valley was praised by critics, who highlighted the game's music, characters, and relaxing qualities, with it later being cited as one of the greatest video games of all time. Yasuhiro Wada, the creator of Harvest Moon, also praised the game for retaining the freedom that later entries of his series had lost. The game was also a commercial success, selling over 20 million copies by 2022.

- Wikipedia

Space



I need your help with these...people who have played the game...how would we describe the space?

Actors



What are some of the actors?
Let's just concentrate on the
farming aspects...

Mechanics



What are some of the mechanics? Let's just concentrate on the farming aspects...

Goals

This is straightforward for a lot of games, but with Stardew Valley though, **there is no 'end'**. As you play on your farm, you will come across various milestones and progress trackers, but there is no end to the game. Players can continue farming for years in the game without growing bored. Aug 16, 2021

<https://www.thegamer.com/how-long-beat-stardew-valley>

How Long Does It Take To Beat Stardew Valley? - TheGamer



BUT there are several score systems. Does anyone know how progress is measured?

Rules



There are a lot...and one of the features of the game is experimenting to find out what the rules are...like a puzzle game.

Anyone have any examples?

Stardew Valley Fun Facts

- Created by Eric Barone
 - Financial and emotional support and design help from his partner Amber Hagemen
- Barone did all the art, programming, music composition on his own
 - Took 5 years
- Designed to mimic previous farm game Harvest Moon
 - ..but allow more
- Art mimicked old Nintendo Art
 - Barone had to learn to do art on his own...2D sprites are easier than 3D models
- Multiplayer was the hardest part to get working
 - Something to keep in mind when you design your game

Stardew Valley Fun Facts

- Started the project to learn better programming skills
- Learned he hated developing for mobile devices
- 2 years into the project he rewrote huge parts of it

"There were points when I was depressed and just thinking, 'What am I doing?'" Barone said. "I have a degree in computer science and I'm working a minimum-wage job as an usher at the theater. People would ask me, 'Do you do anything else?' And I [said], 'I'm making a video game.' I just felt embarrassed about it. They must have thought, 'Oh, this guy is a loser.' "

- In case you are curious he is a millionaire now
 - He did not expect that would happen
 - Keep in mind it was a lot of work...
 - Easier ways to get rich if that's your singular goal
 - Trying hard stuff is important but being realistic is important as well

What About Space Invaders?

Actors

Mechanics

Goals

Space

Rules



What About Space Invaders?

Actors: player, aliens, projectiles

Mechanics:

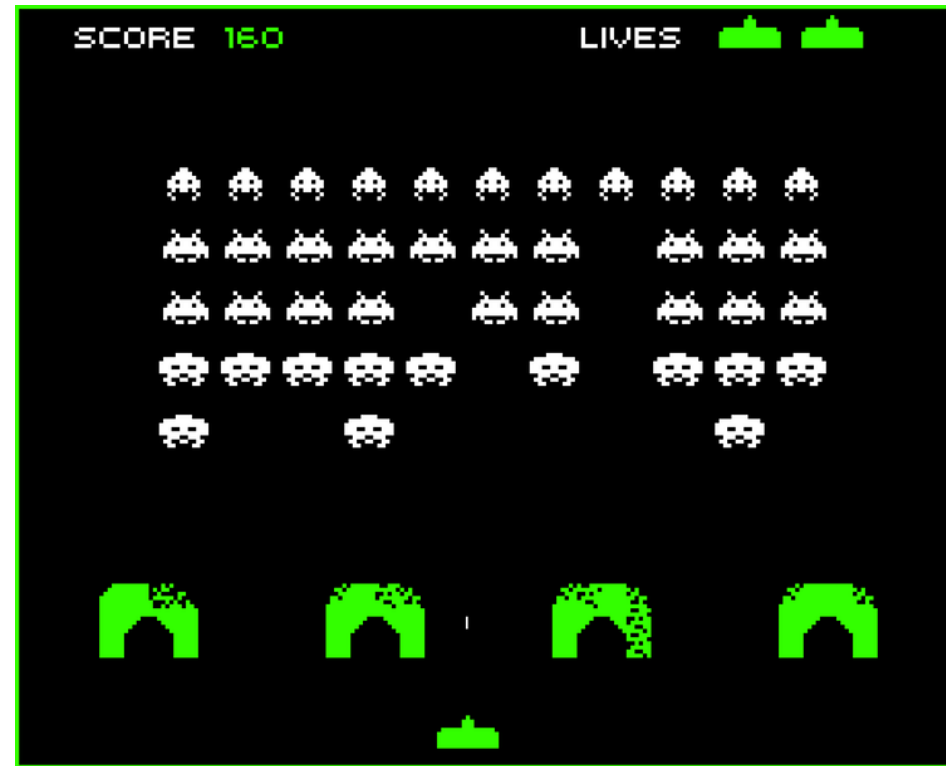
- Player can move side-to-side
- Projectiles destroy other actors
- Projectiles erode barrier objects
- Aliens march side-to-side and down
- Remaining aliens speed up when alien is destroyed

Goals: Achieve highest possible score

Space: 2D screen with 4 barriers

Rules:

- Player has 3 lives
- Score is kept with different aliens worth differing points
- Defeating all the aliens brings another wave which starts lower, a loop which can continue endlessly



Fun Fact



Posted by u/Zaptagious 5 years ago

2.7k



TIL the aliens moving faster as you kill them in Space Invaders was a byproduct of the processor freeing up more memory as they could be rendered more quickly the fewer there were on screen, it was left in to provide more challenge

en.wikipedia.org/wiki/S...



Game Design Tips!

You have 8 weeks: do not try to do too much....

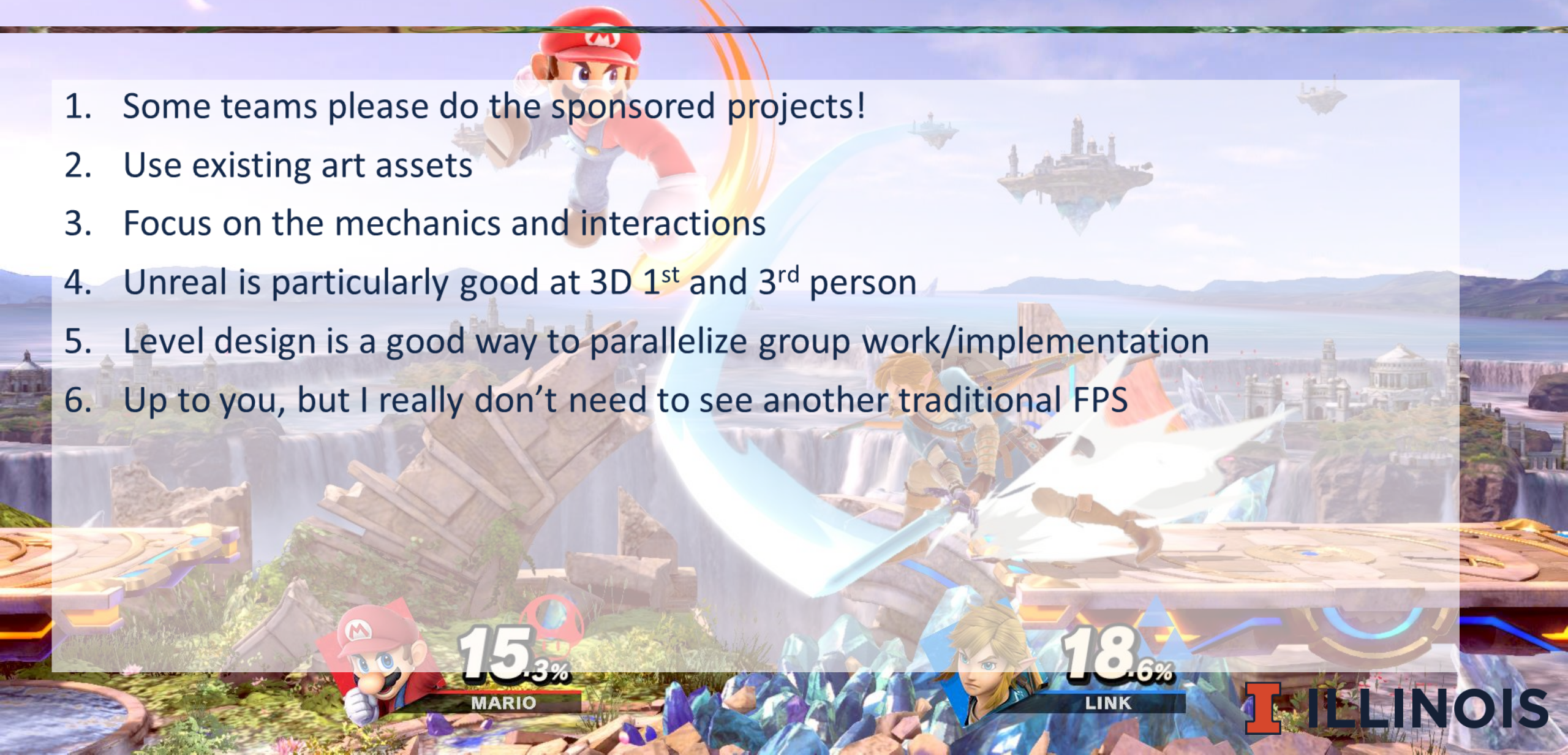
Space Invaders and Stardew are both great games

- Stardew took 5 years to make
- Space Invaders you could now do in a week



Game Design Tips!

1. Some teams please do the sponsored projects!
2. Use existing art assets
3. Focus on the mechanics and interactions
4. Unreal is particularly good at 3D 1st and 3rd person
5. Level design is a good way to parallelize group work/implementation
6. Up to you, but I really don't need to see another traditional FPS



Desiogn Tip: Feature Matrix

	HUD	Post Process Effects	Material Effects	Particle Effects	Animation	Sound	Player	Attacking Player	Defending Player	Team Mate	Enemy	Has been spotted	Player spots	Jump
HUD										Shows player with blue text above their head			If a player spots a spottable actor it appears on the hud for their team.	
Post Process Effects							Post Process effects are played on the players screen.							
Material Effects							Slight variations to add diversity to players.							
Particle Effects														
Animation							Player movement animations.							Jumping animation Airborne animation Landing animation Jump sounds for every physical material.
Sound								General chat Radio noise Footstep sounds					Notify sound.	
Player							Can chat to each other in game				Can be killed by	Position is placed on the spotting teams minimap and superimposed on their HUD Will lose tag after 5 seconds of line-of-sight being broken. Will lose tag after 60 seconds of line-of-sight being broken.		Can jump.
Attacking Player								Can share plan information	Can kill each other.					
Defending Player									Can share planning information					
Team Mate									Can have private chat with each other		Can be killed by Can have private chat with each other			
Enemy											Appears on HUD and minimap.	Can be spotted.		
Has been spotted														
Player spots														
Jump														

Example Feature Matrix

FEATURE MATRIX

A feature matrix is a chart plotting every feature in the game against every other feature and what their interactions mean.

While creating a Feature Matrix may seem like an arduous task, its development often reveals many potential interactions that hadn't previously been considered.

