

Realtà Virtuale Esercitazioni

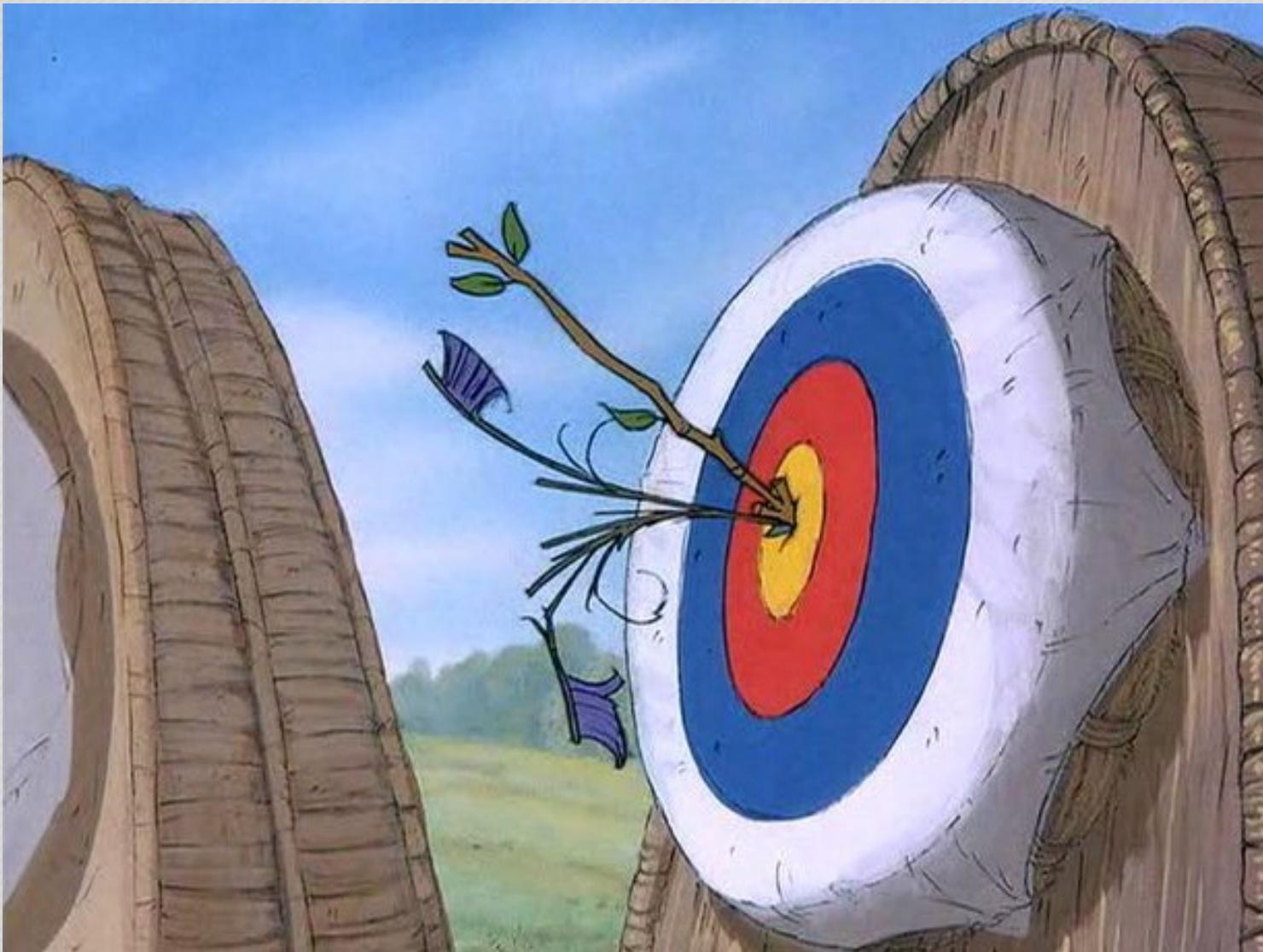
Francesco Strada
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[7087]



■ APPLICATION DESIGN



■ OBIETTIVO



■ STATO DELL'ARTE

Cosa è già stato fatto?

Che problemi/limiti hanno le soluzioni già presenti?

In che modo la mia soluzione è diversa?

Posso “riciclare” qualcosa?

Indicare 3 esempi di applicazioni “simili” descrivendole brevemente e specificando in che modo la vostra si distingue.
Se non ne trovate indicate delle applicazioni da cui vi “ispirate” ed in tal caso spiegatene il perchè.

Don't reinvent the wheel!

IBM.



■ UTENTE



■ UTENTE - MOVIMENTI

Quale sarà il punto di vista?

Prima Persona vs Terza Persona



https://www.youtube.com/watch?v=Jnk8p_2QSUQ

<https://www.youtube.com/watch?v=GenGp7sK3os>

https://www.youtube.com/watch?v=mC8QoRa8y_Q

[https://www.gamasutra.com/blogs/MichelSabbagh/20150827/252341/The important differences between firstperson and thirdperson games.php](https://www.gamasutra.com/blogs/MichelSabbagh/20150827/252341/The%20important%20differences%20between%20firstperson%20and%20thirdperson%20games.php)

■ UTENTE - MOVIMENTI

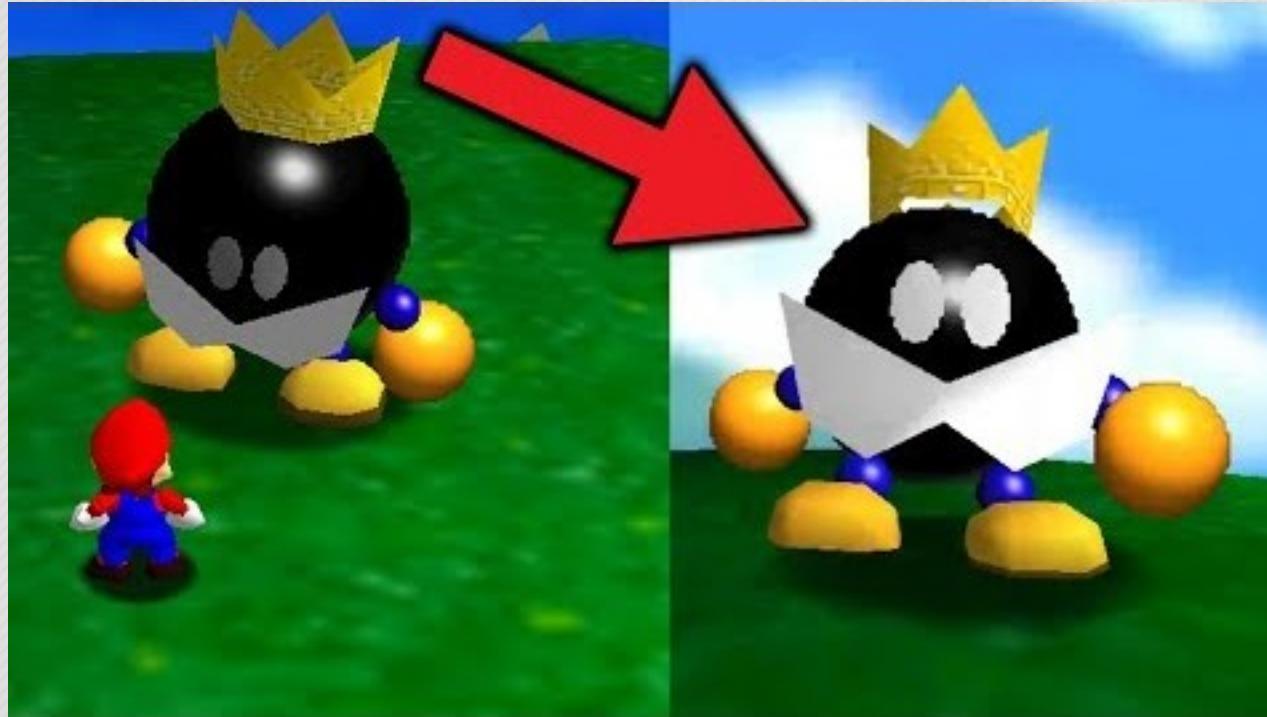
Prima Persona vs Terza Persona



<https://www.youtube.com/watch?v=yc9oSK74ZTU>

■ UTENTE - MOVIMENTI

Prima Persona vs Terza Persona

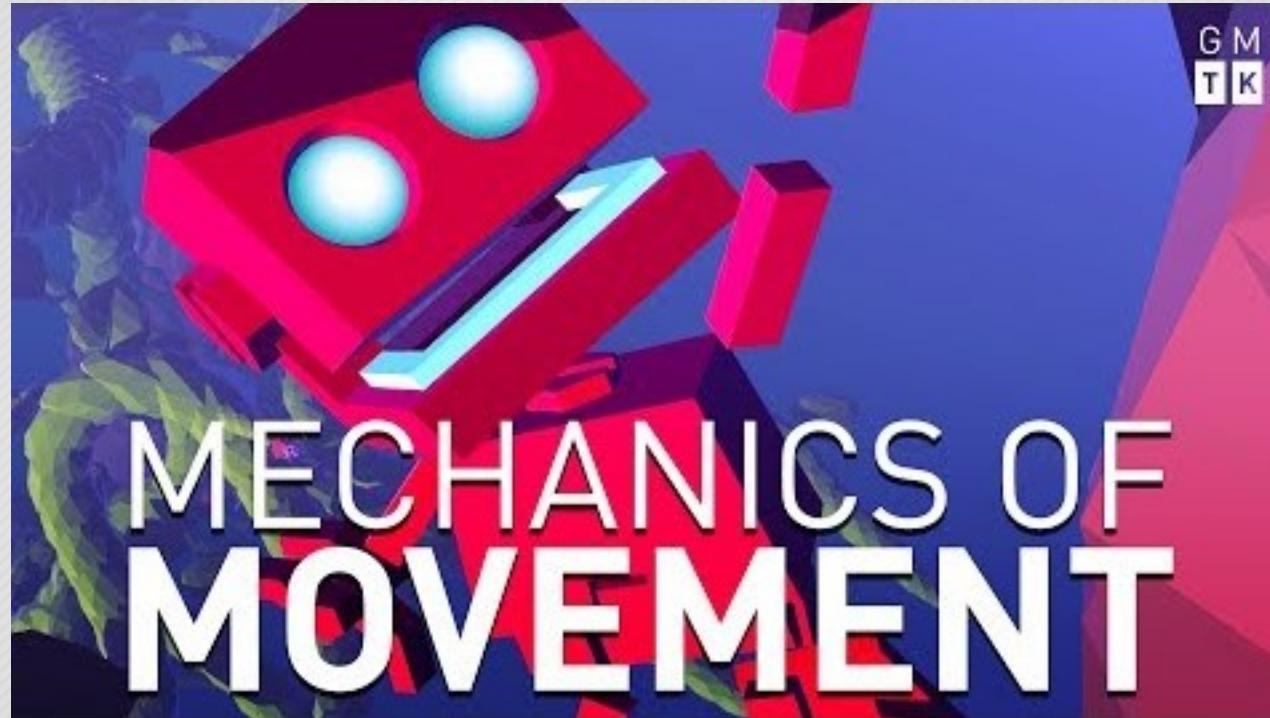


<https://www.youtube.com/watch?v=AVFFcVwPYzw>

■ UTENTE - MOVIMENTI

Ha dei movimenti “speciali”?

Specificare tutti i possibili movimenti disponibili all’utente.



<https://www.youtube.com/watch?v=lQRr3pXxsGo>

■ UTENTE - MOVIMENTI

Come si controlla?

Indicare come verrà controllato il movimento e la gestione della camera.



<https://www.youtube.com/watch?v=VJGKDyrR8qc>

<https://www.youtube.com/watch?v=TPCpXXBHFSA>

■ UTENTE - INTERAZIONI

Con cosa si può interagire nell'ambiente?
Come si interagisce?

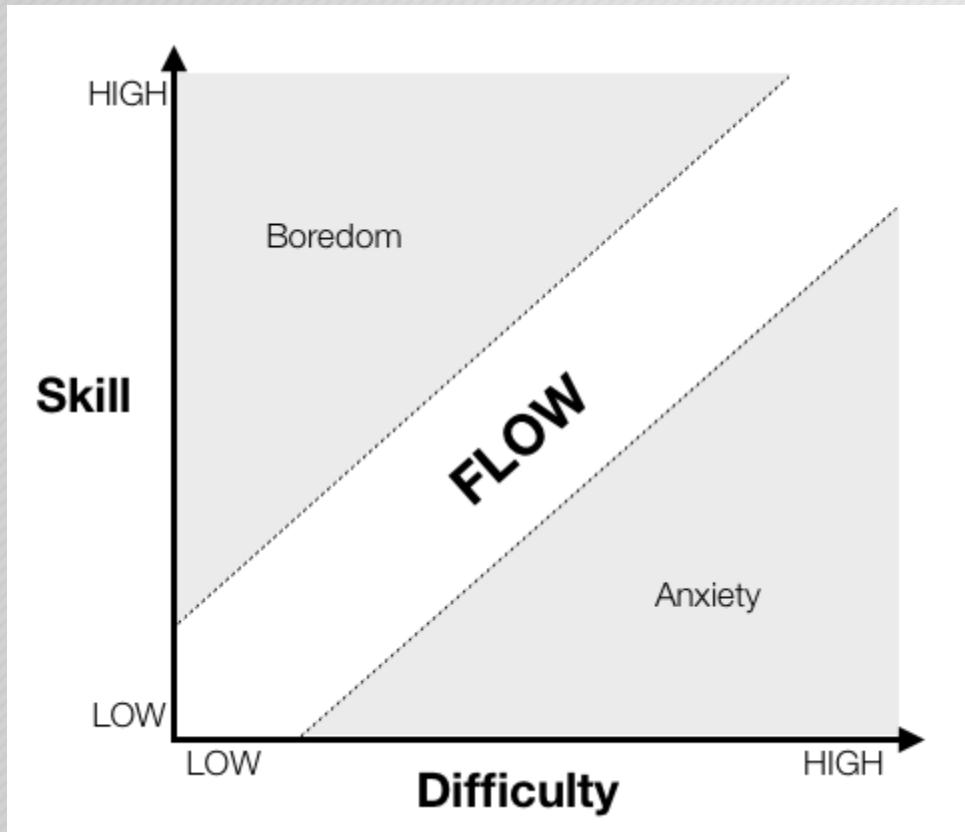
Indicare come e con cosa
l'utente interagirà con
l'ambiente.



https://www.youtube.com/watch?v=0qTWrM_E9GQ

■ UTENTE - FLOW

Indicare la progressione di
abilità e difficoltà.



Characteristics to induce a **state of Flow**:

1. Have concrete goals with manageable rules.
2. Demand actions to achieve goals that fit within the person's capabilities.
3. Have clear and timely feedback on performance and goal accomplishment.
4. Diminish extraneous distraction, thus facilitating concentration.

<https://www.youtube.com/watch?v=iUsOCR1KKms>

http://www.gamasutra.com/view/feature/166972/cognitive_flow_the_psychology_of_.php

■ FEEDBACKS & CUES

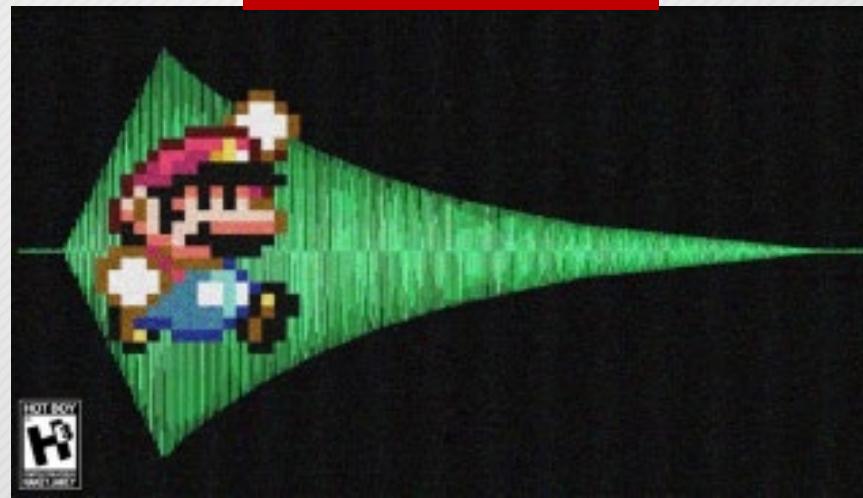
Informare l'utente rispetto a cosa sta succedendo nella simulazione.

Specificare tutti i principali feedback che prevedete di utilizzare nella vostra applicazione.

VIDEO



AUDIO



APTICO



■ FEEDBACKS & CUES - VIDEO



https://www.youtube.com/watch?v=0zs_2eEyKTc

■ FEEDBACKS & CUES - AUDIO



<https://www.youtube.com/watch?v=wHOyLvVQJa0>

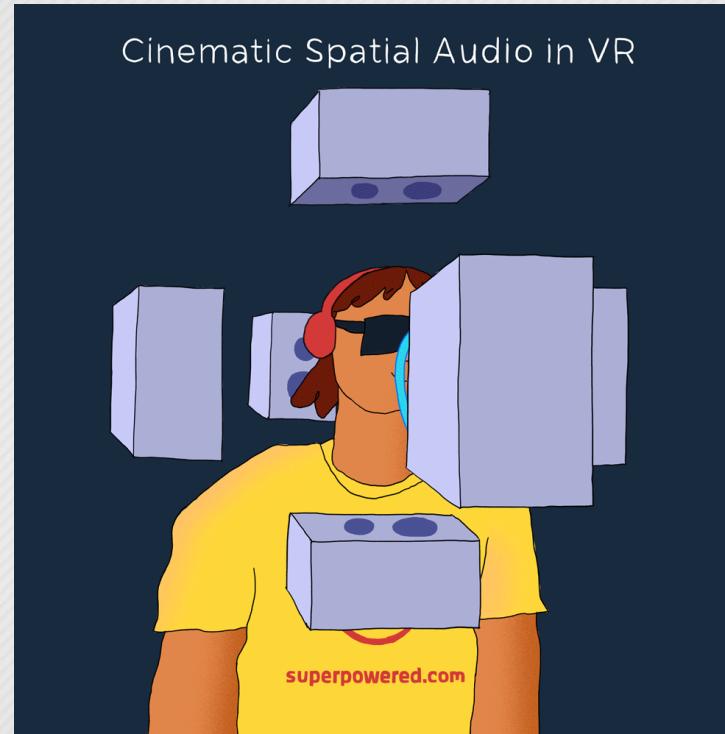
■ FEEDBACKS & CUES - APTICO



<https://www.youtube.com/watch?v=O18cHHOB0yY>

■ AUDIO

Fornire Feedbacks & Cues
Creazione del Mood (Emozioni)



Specificare tutti i principali suoni e indicare qualora questi siano spazializzati o no.

Spazializzato vs NON Spazializzato

<https://www.youtube.com/watch?v=WICx3pINNOE>

<https://www.youtube.com/watch?v=KcorlwJscFA>

<https://youtu.be/51za5u3LtEc?t=297>

<https://www.youtube.com/watch?v=91BUM3WhCfo>

■ SISTEMI



[https://www.gamasutra.com/view/news/128271/The Craft of Game Systems General Guidelines.php](https://www.gamasutra.com/view/news/128271/The_Craft_of_Game_Systems_General_Guidelines.php)

<https://www.youtube.com/watch?v=NZc7yGdahkY>

<http://acagamic.com/game-design-course/game-system-dynamics/>

■ SISTEMI



<https://www.youtube.com/watch?v=E2tg6e3uijE>

■ SISTEMI

Sistema #1

Sistema #1.1
Sistema #1.2

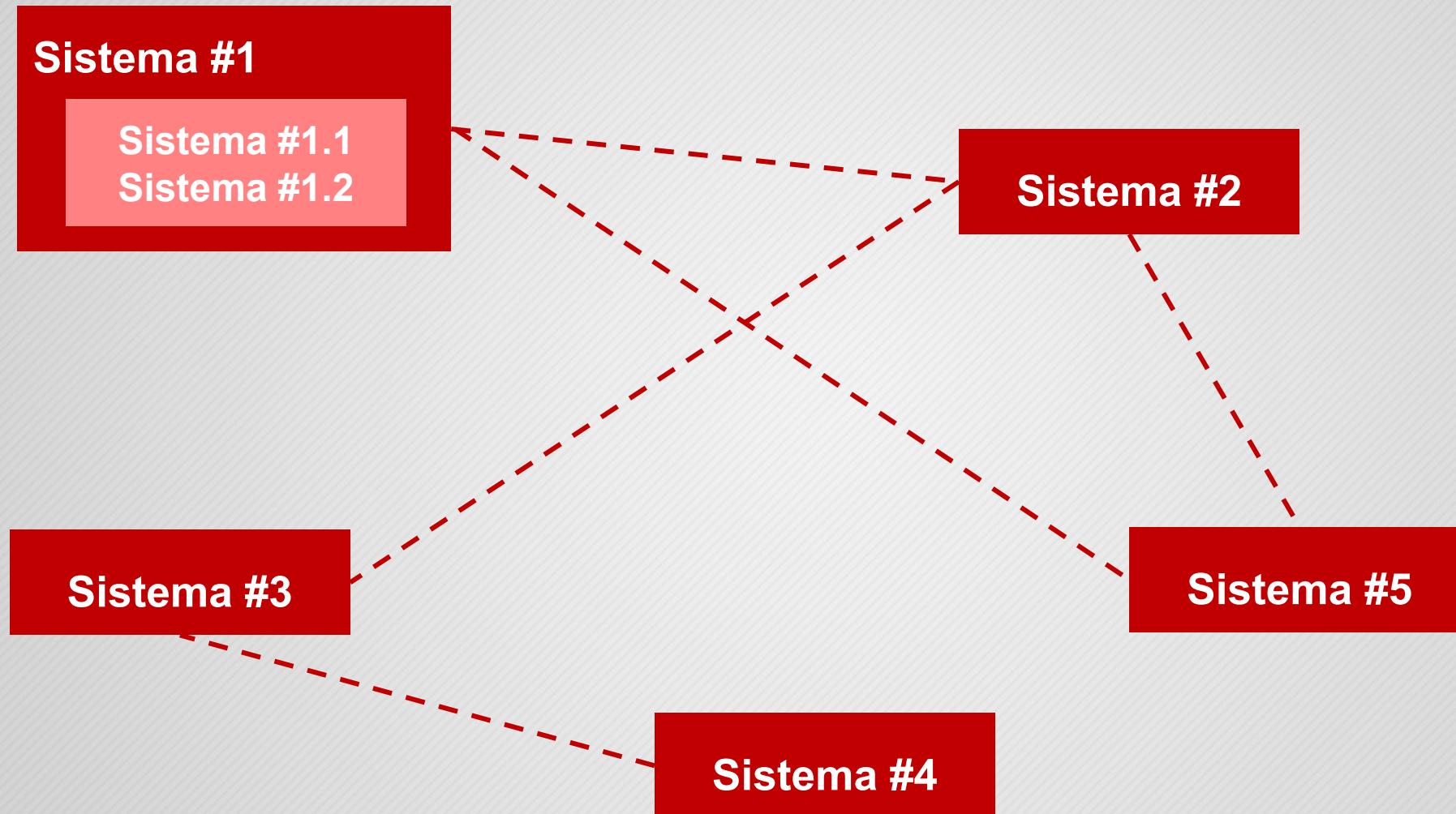
Sistema #2

Sistema #3

Sistema #5

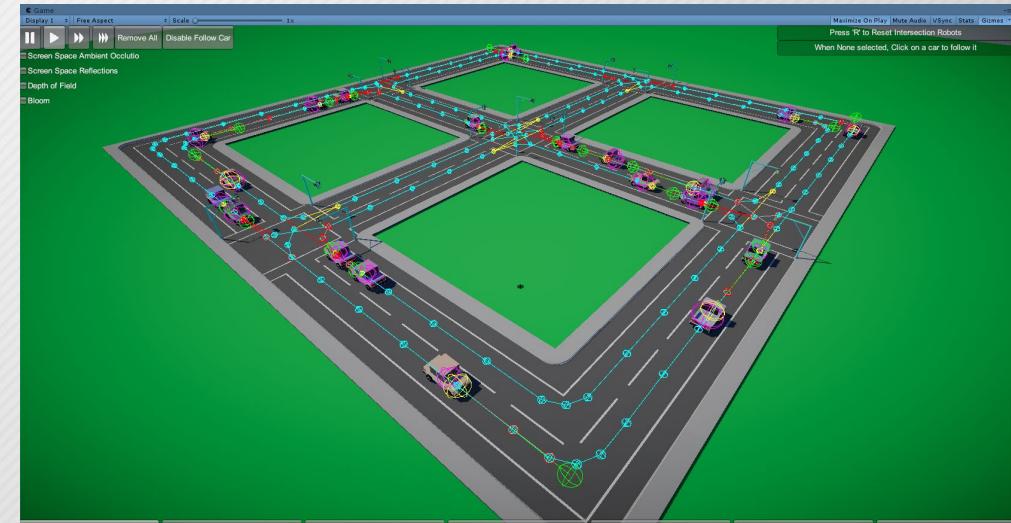
Sistema #4

■ SISTEMI - SYSTEMIC



SISTEMI

Scomponete la vostra applicazione nei sistemi principali e descriveteli.



■ UI

ATTENZIONE!

In una applicazione di Realtà Virtuale l'interfaccia grafica non dovrebbe essere presente! Una qualsiasi aggiunta all'esperienza comporta un distacco dalla stessa e quindi una minore sensazione di presenza e di immersione.

Nella maggior parte dei casi, però, un'interfaccia grafica è necessaria (indicazione del tempo, delle vite, l'inventario, la mappa, ...): in questi casi l'interfaccia deve essere pensata in modo tale che:

- Non disturbi assolutamente l'esperienza di gioco
- Sia solo a supporto dell'applicazione
- Sia estremamente usabile!

■ UI



IN THE 3D GAME WORLD



IN THE GAME'S NARRATIVE

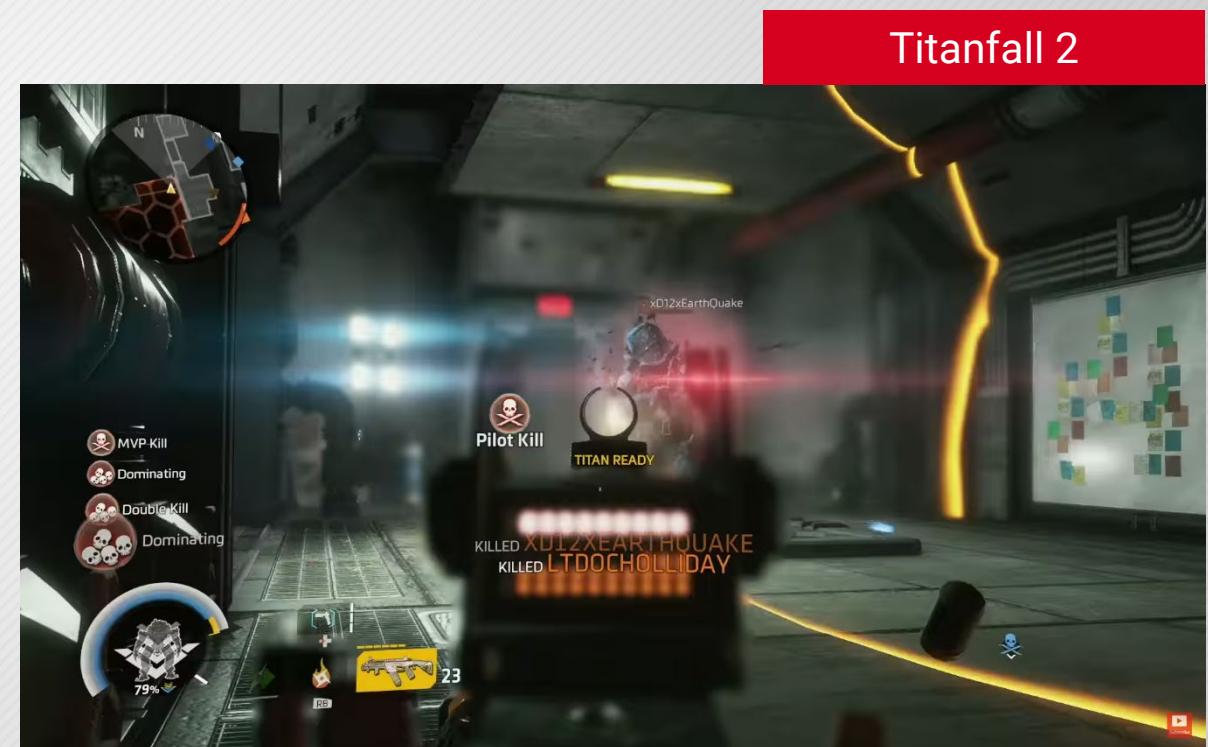
https://www.gamasutra.com/view/feature/4286/game_ui_discoveries_what_players_.php

https://www.gamasutra.com/blogs/AnthonyStonehouse/20140227/211823/User_interface_design_in_video_games.php

■ UI



Un interfaccia esterna all'ambiente virtuale, visibile e ascoltabile solo dai giocatori nell' ambiente reale.

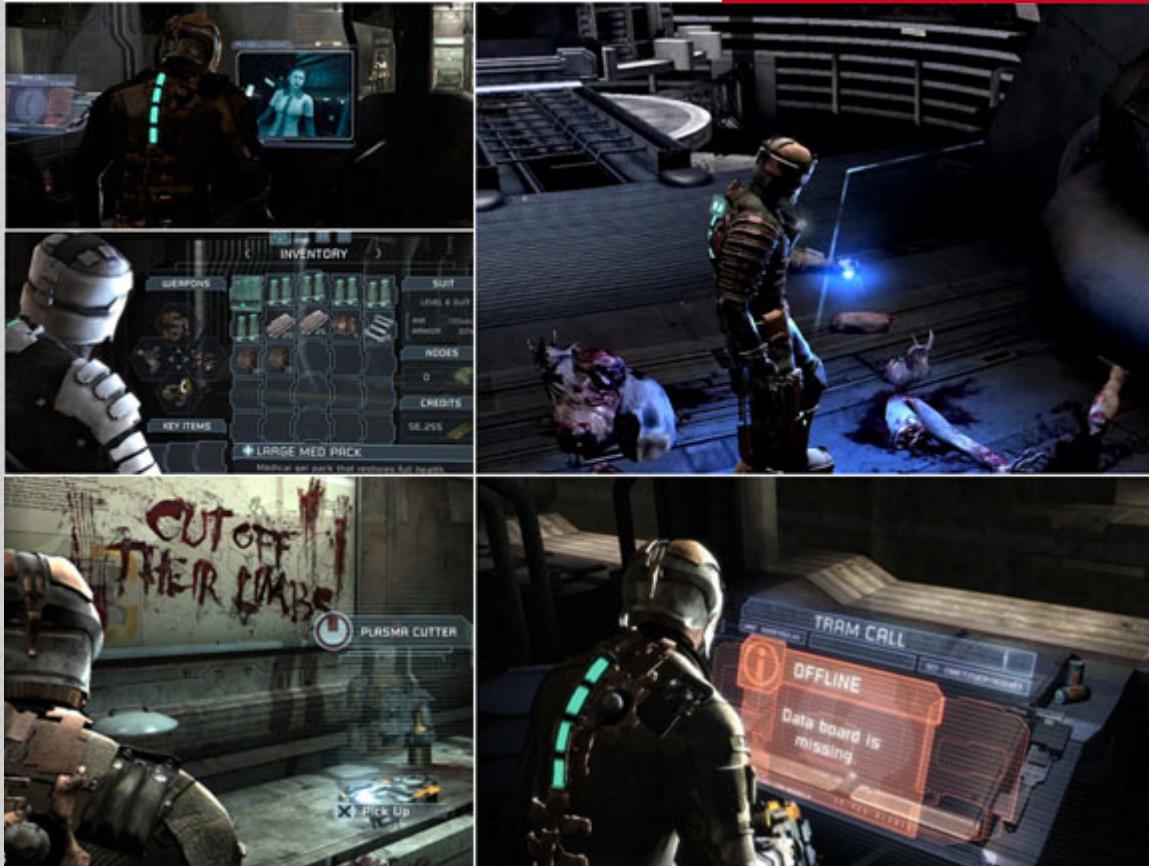


■ UI



Un interfaccia inclusa nell'ambiente virtuale, può essere visualizzata o ascoltata dai personaggi del gioco.

Dead Space



Assassin's Creed



■ UI

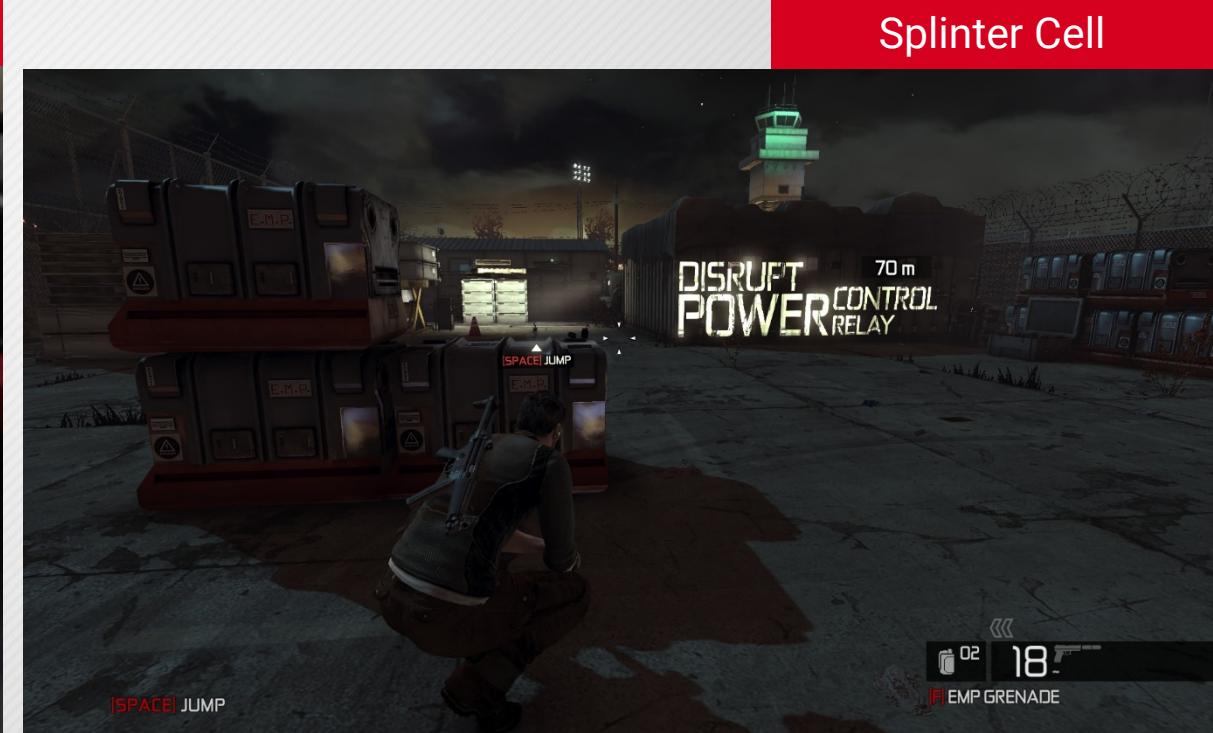


Gli elementi dell'interfaccia sono presenti nell'ambiente virtuale 3D, possono essere diegetici o non.

Need for Speed



Splinter Cell





Sono meta rappresentazioni di elementi dell'ambiente virtuale ma non visibili al player.



CoD: MW 2



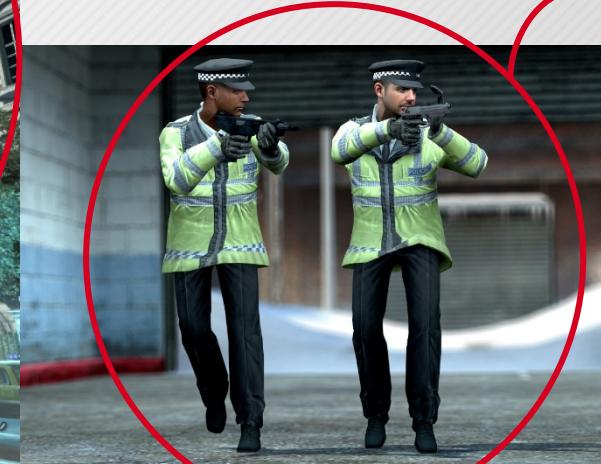
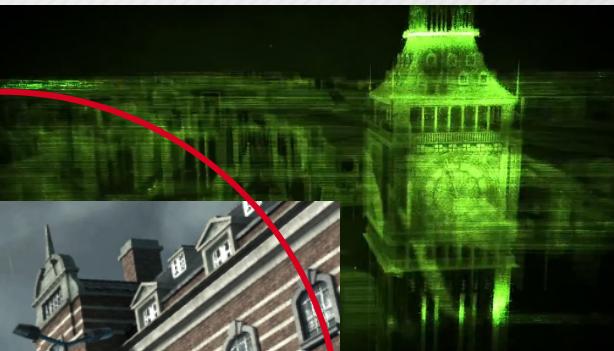
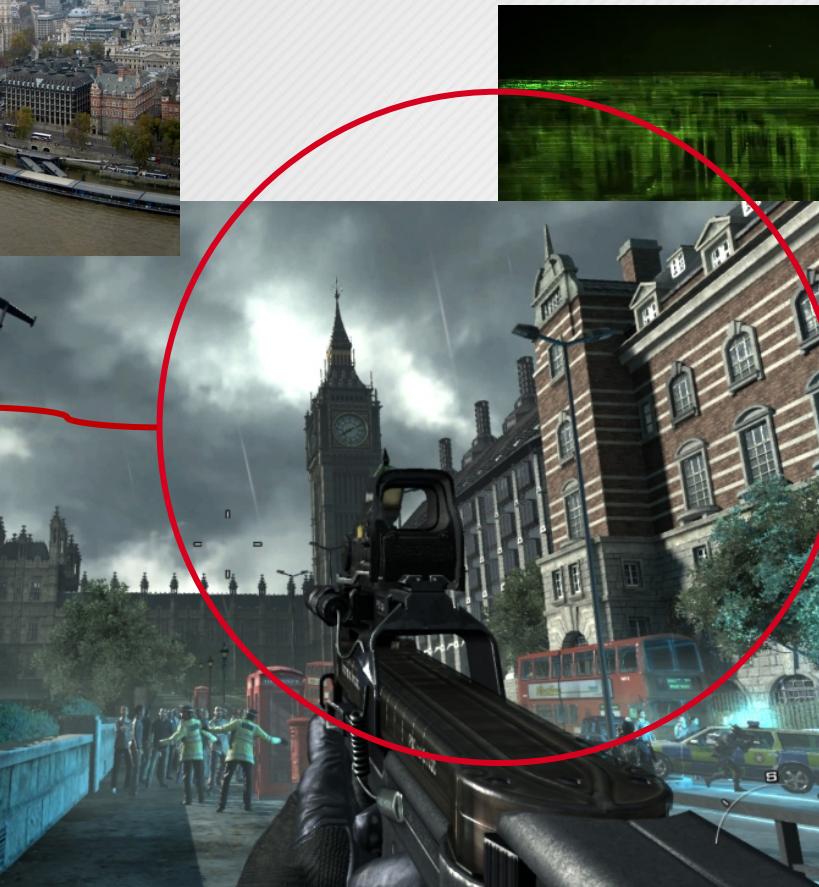
GTA IV

■ ASSETS - REFERENCES

Raccogliete quante più reference possibili.

Concept Art

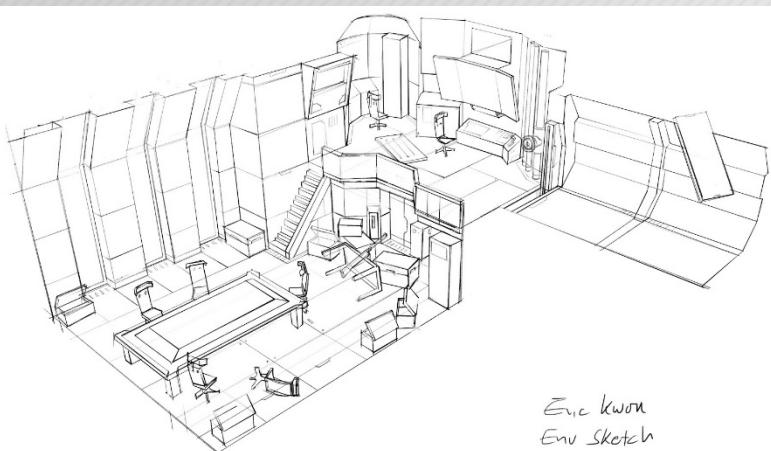
References



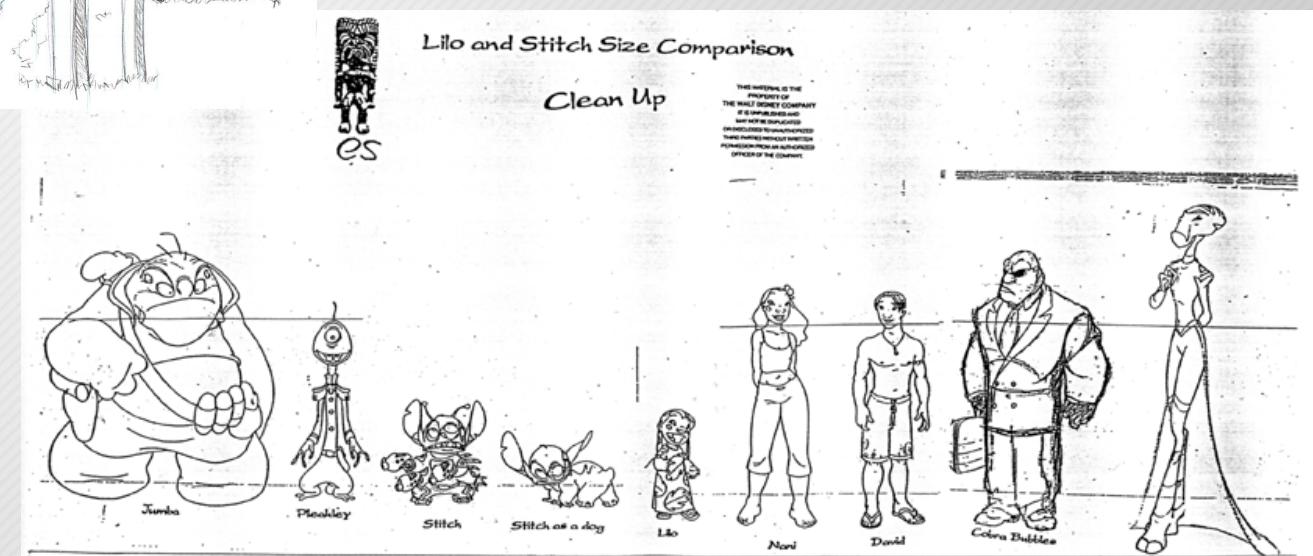
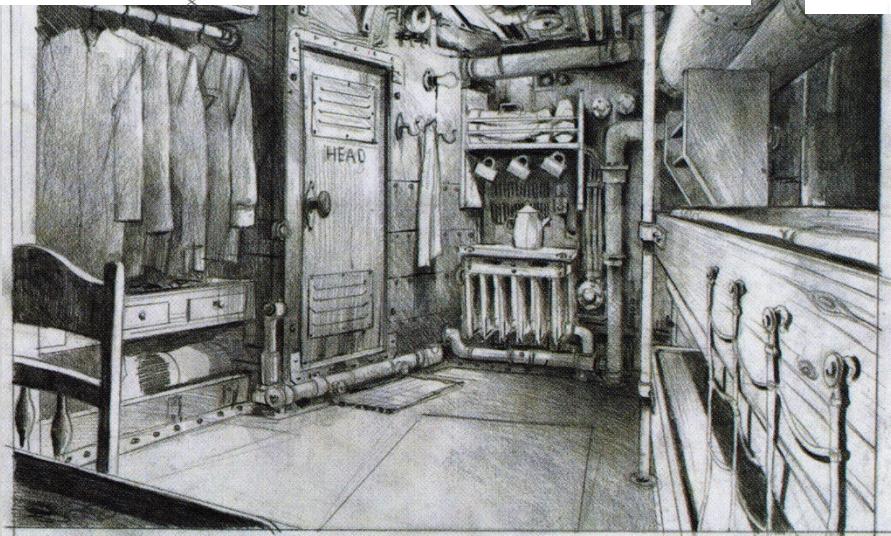
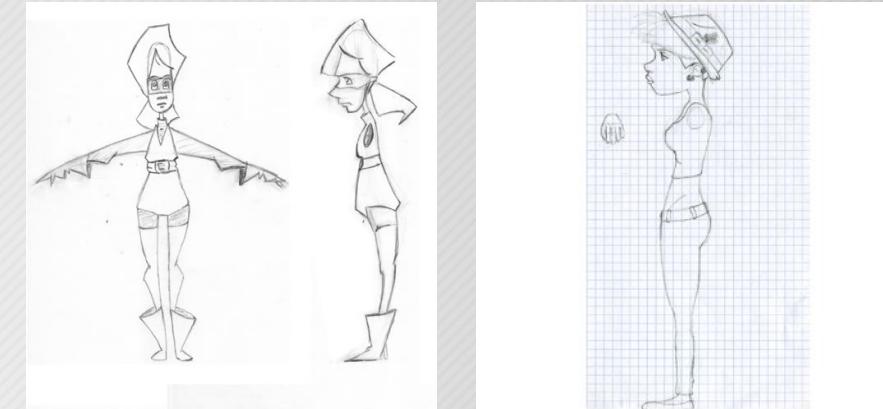
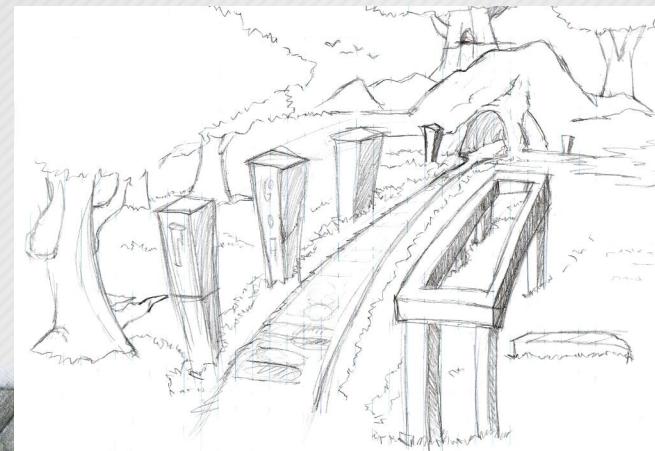
■ ASSETS - SKETCHES

Concept Art

Sketches

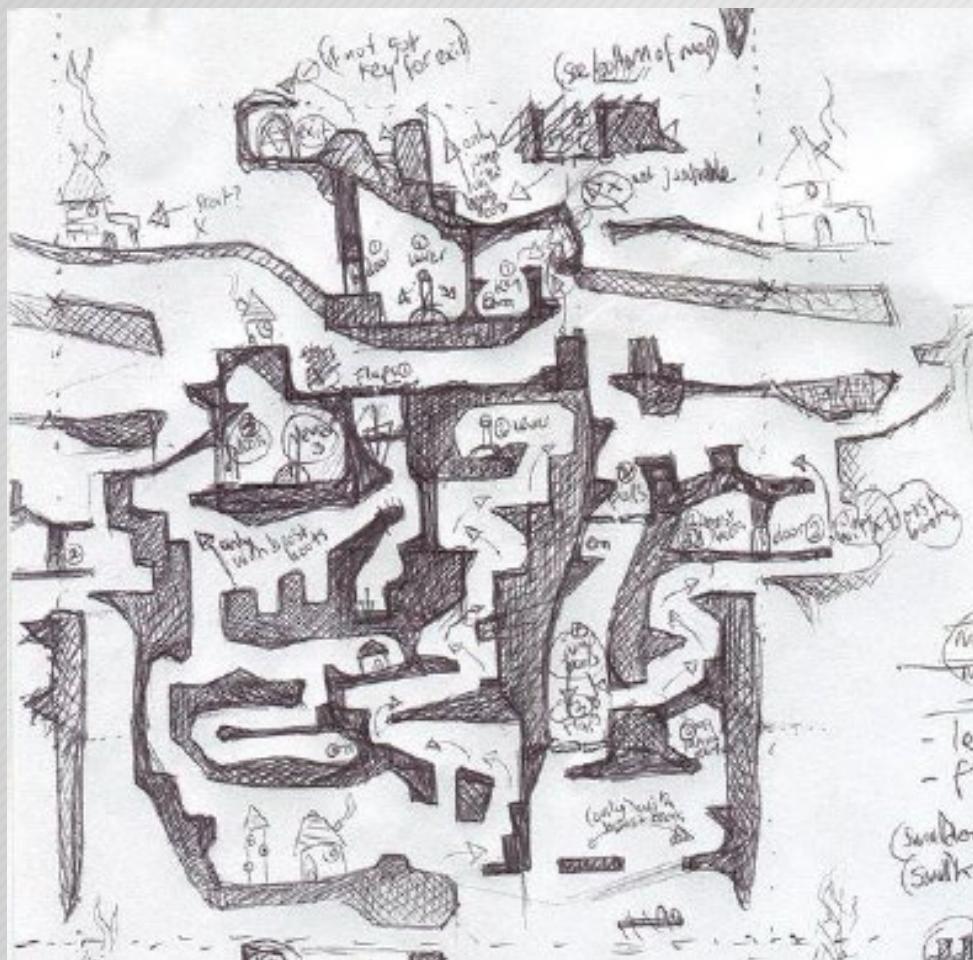


Eric Kwon
Env Sketch



Laddove necessario fate dei disegni, soprattutto per gli ambienti.

■ ASSETS - LEVEL DESIGN



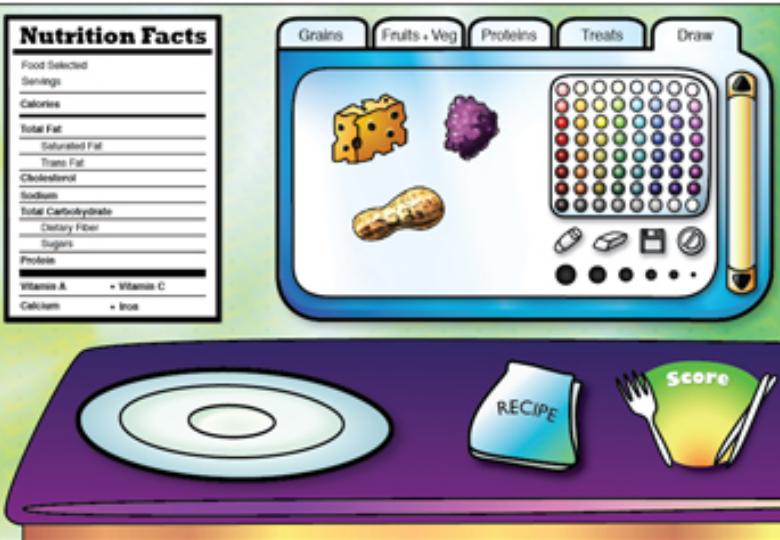
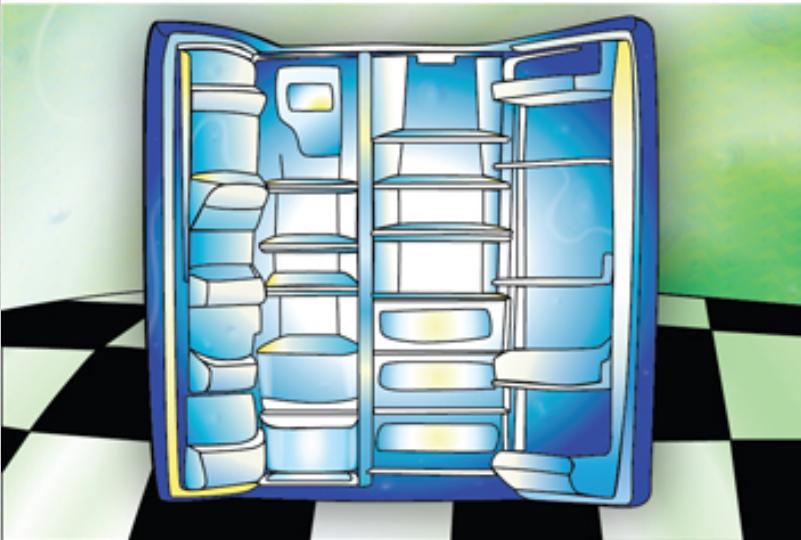
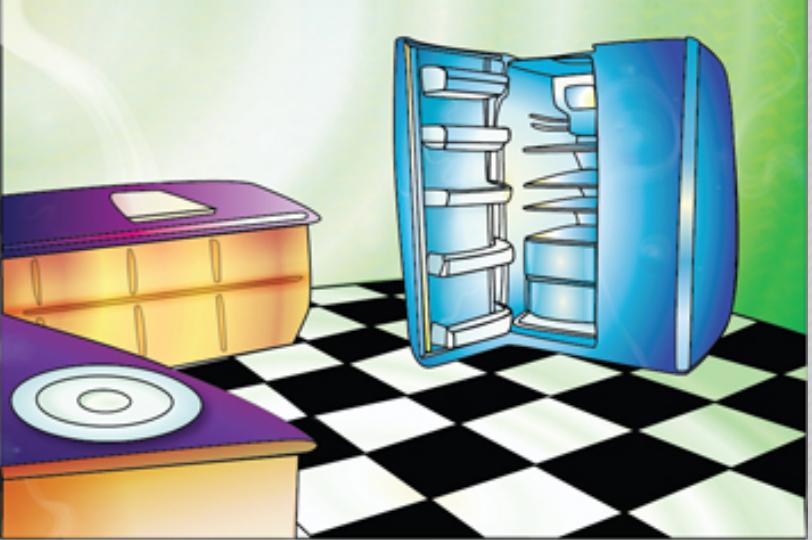
■ ASSETS - MODULARITY



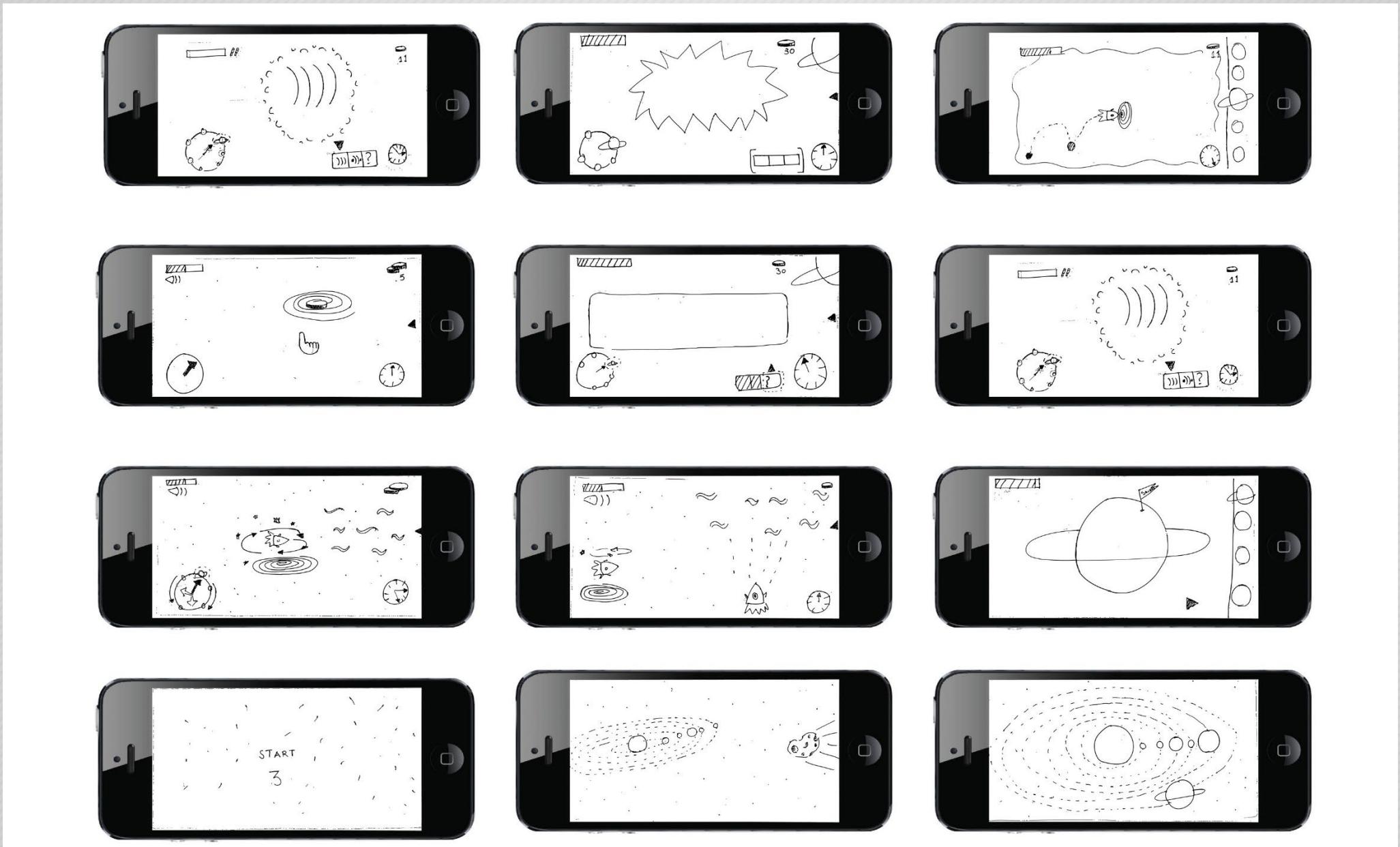
<https://www.pinterest.it/artbychien/modular-game-assets/>

<https://software.intel.com/content/www/us/en/develop/articles/modular-concepts-for-game-and-virtual-reality-assets.html>

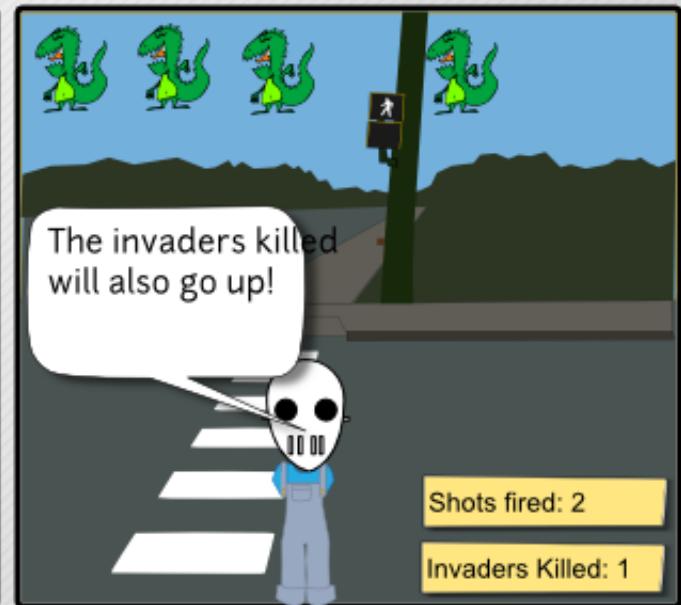
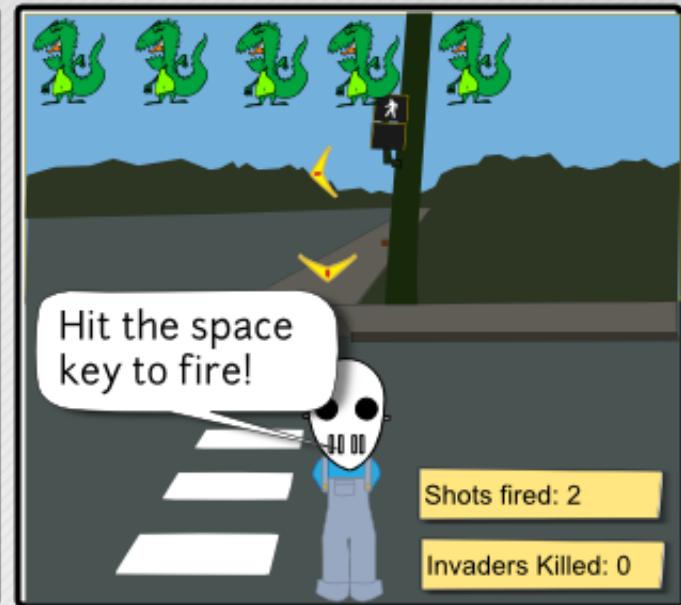
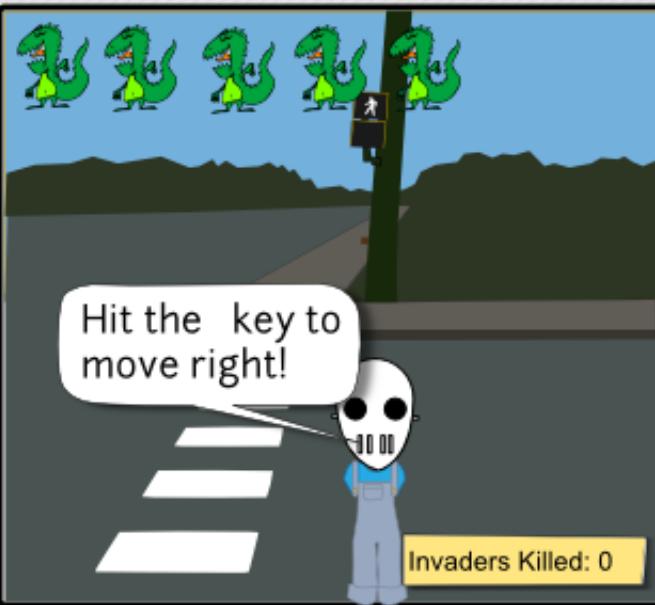
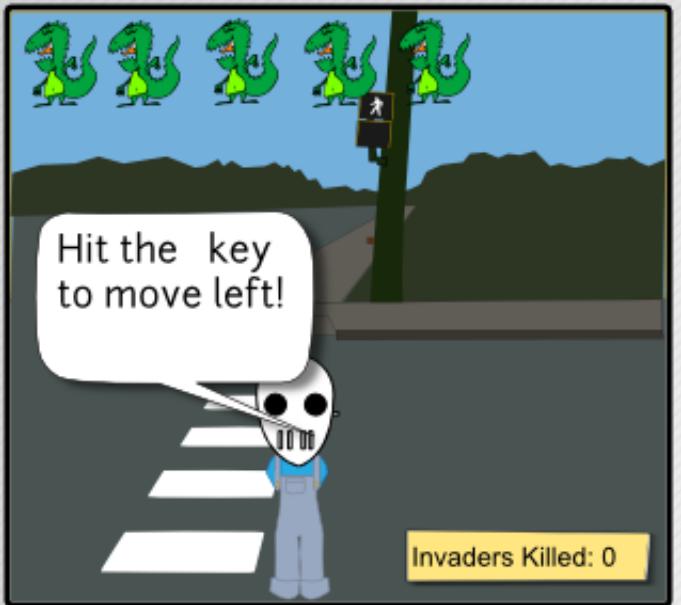
■ STORYBOARDS



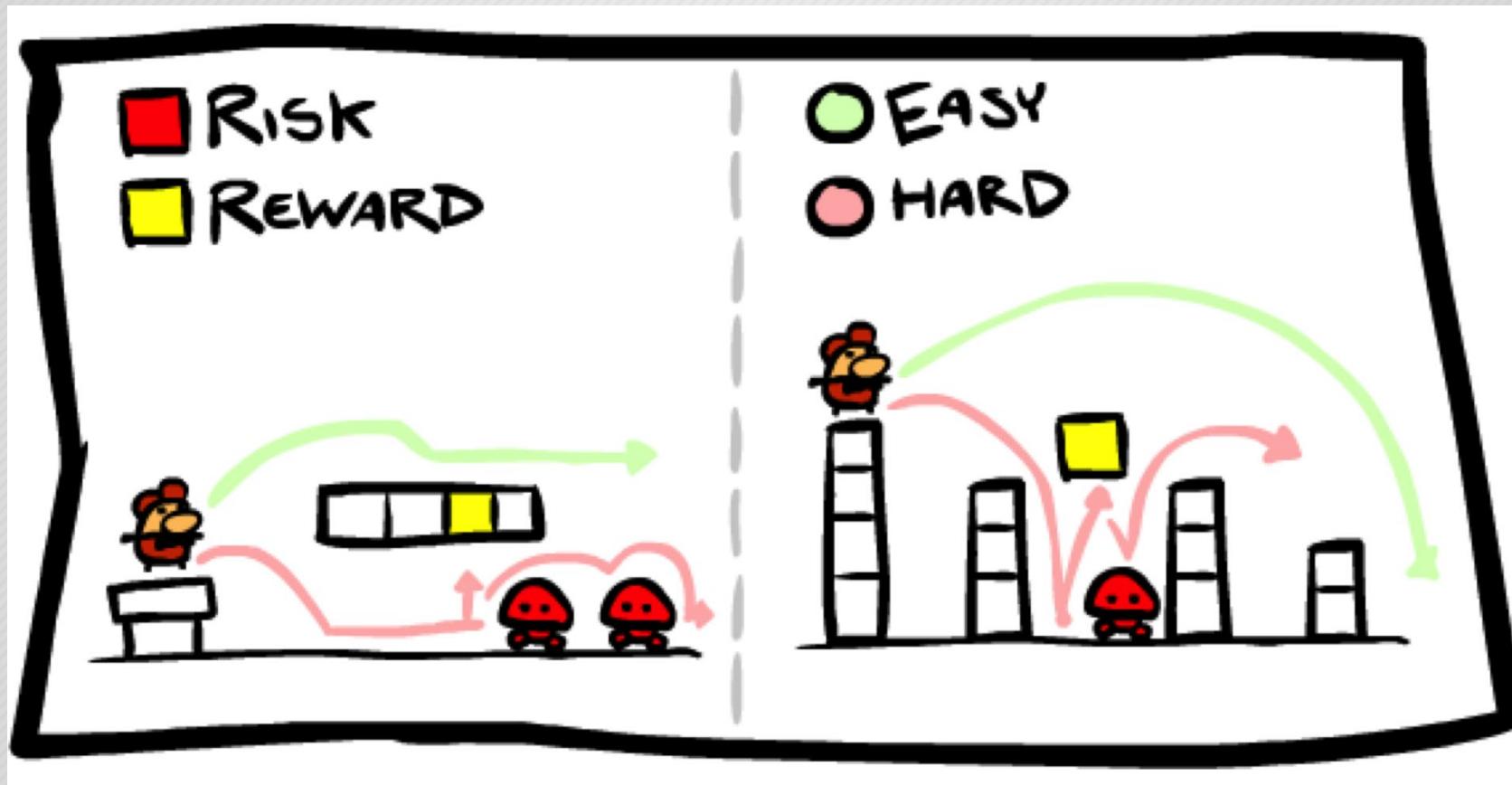
■ STORYBOARDS



■ STORYBOARDS



■ STORYBOARDS



■ STORYBOARDS

Fare lo storyboard.

Nello storyboard dovete rappresentare l'evoluzione della vostra applicazione.

Ricordatevi i passaggi di livello, i menu, i tutorial, gli aiuti, ...

Si devono identificare gli elementi e i passaggi chiave dell'applicazione.

Non verrà valutato il livello artistico degli storyboard.

■ PROTOTYPING

“ Prototyping lies at the heart of good game design. Prototyping is the creation of a working model of your idea that allows you to test its feasibility and make improvements to it. Game prototypes, while playable, usually include only a rough approximation of the artwork, sound, and features.

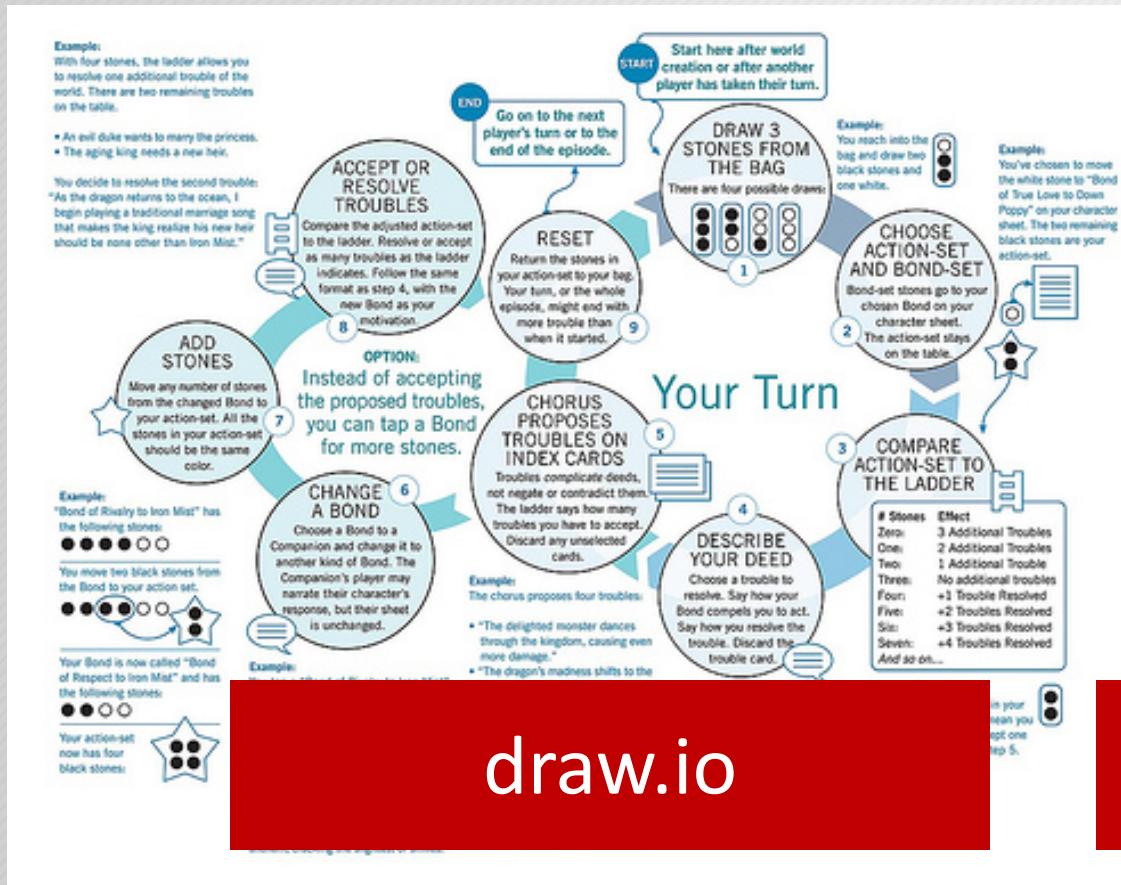
■ PROTOTYPING - DIGITAL

- The benefits of **physical** prototyping are many. First, it allows you to focus on gameplay rather than technology.
- Physical prototyping also allows for nontechnical team members to participate at a very high level in the design process.
- without major cost or use of resources

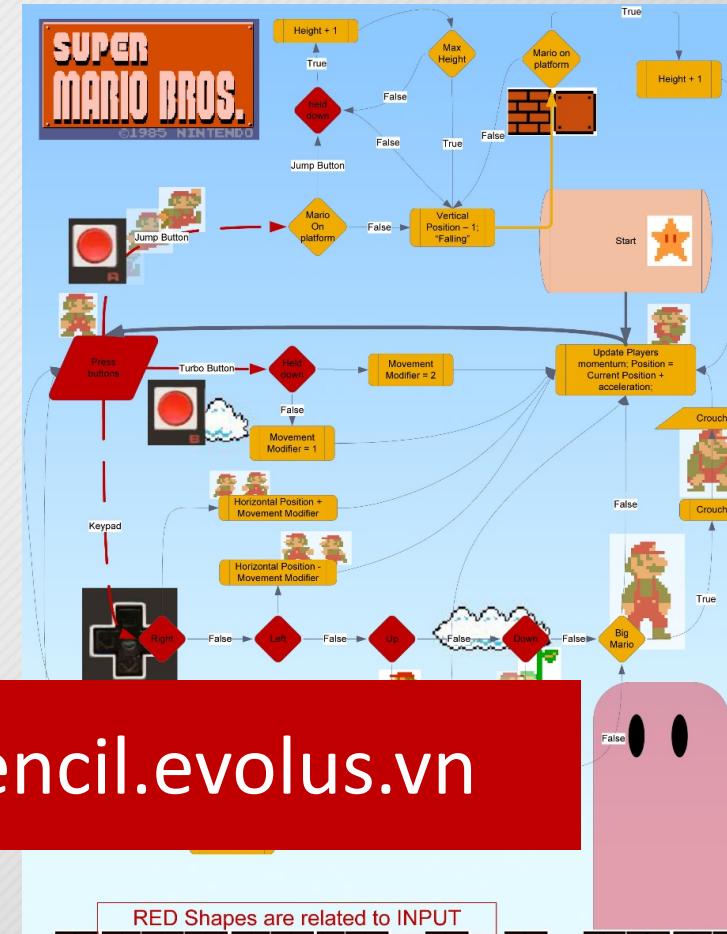


■ PROTOTYPING - FLOWCHARTS

Utile, è sicuramente la creazione di **Flowchart** per identificare meglio la struttura della storia e di meccanismi di gioco.



draw.io



pencil.evolus.vn

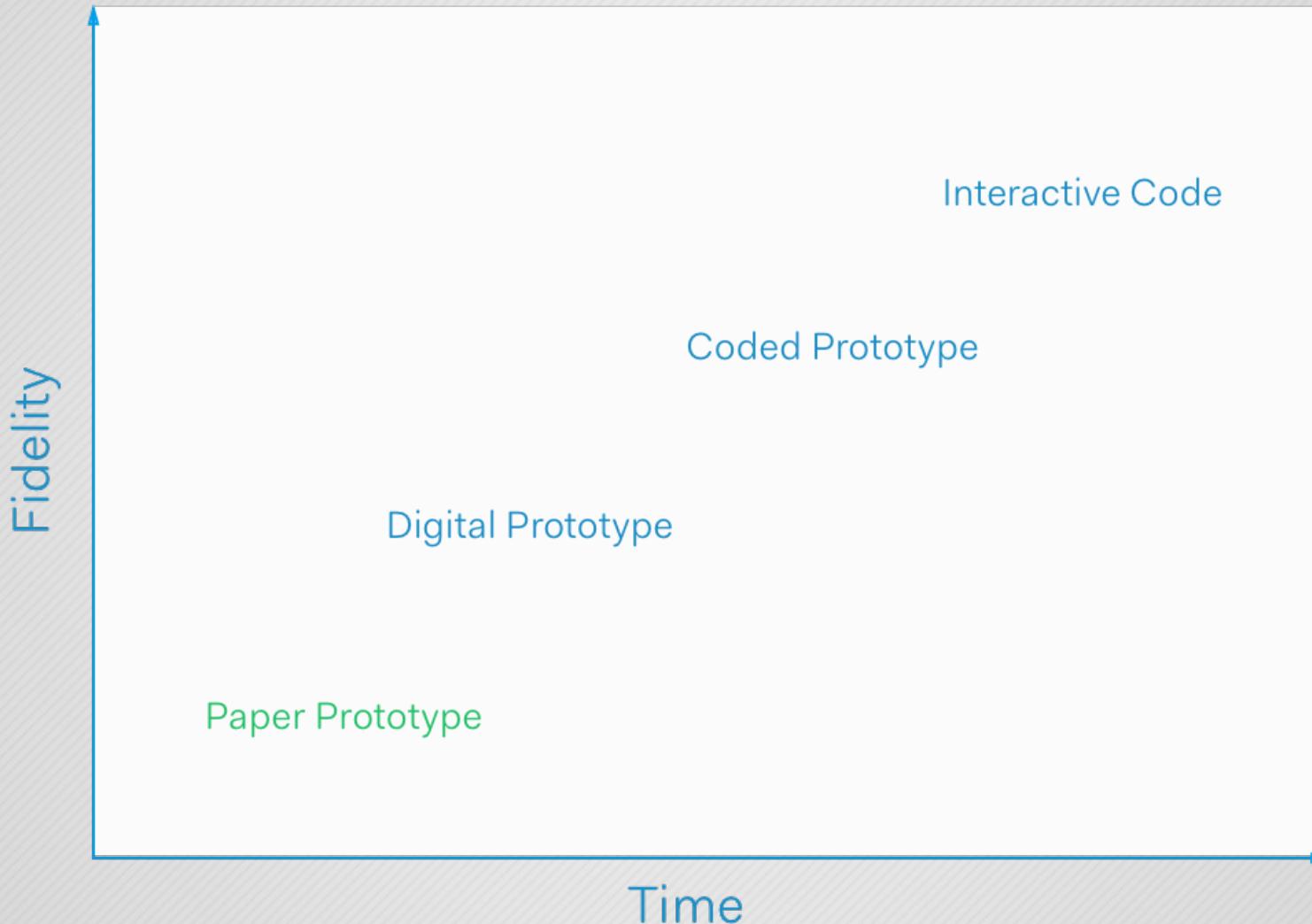
■ PROTOTYPING - DIGITAL

“ Digital Prototyping are made using only the elements needed to make them functional. They are not finished games, and if you spend too much time making them like finished games, you will defeat the purpose of prototyping itself.

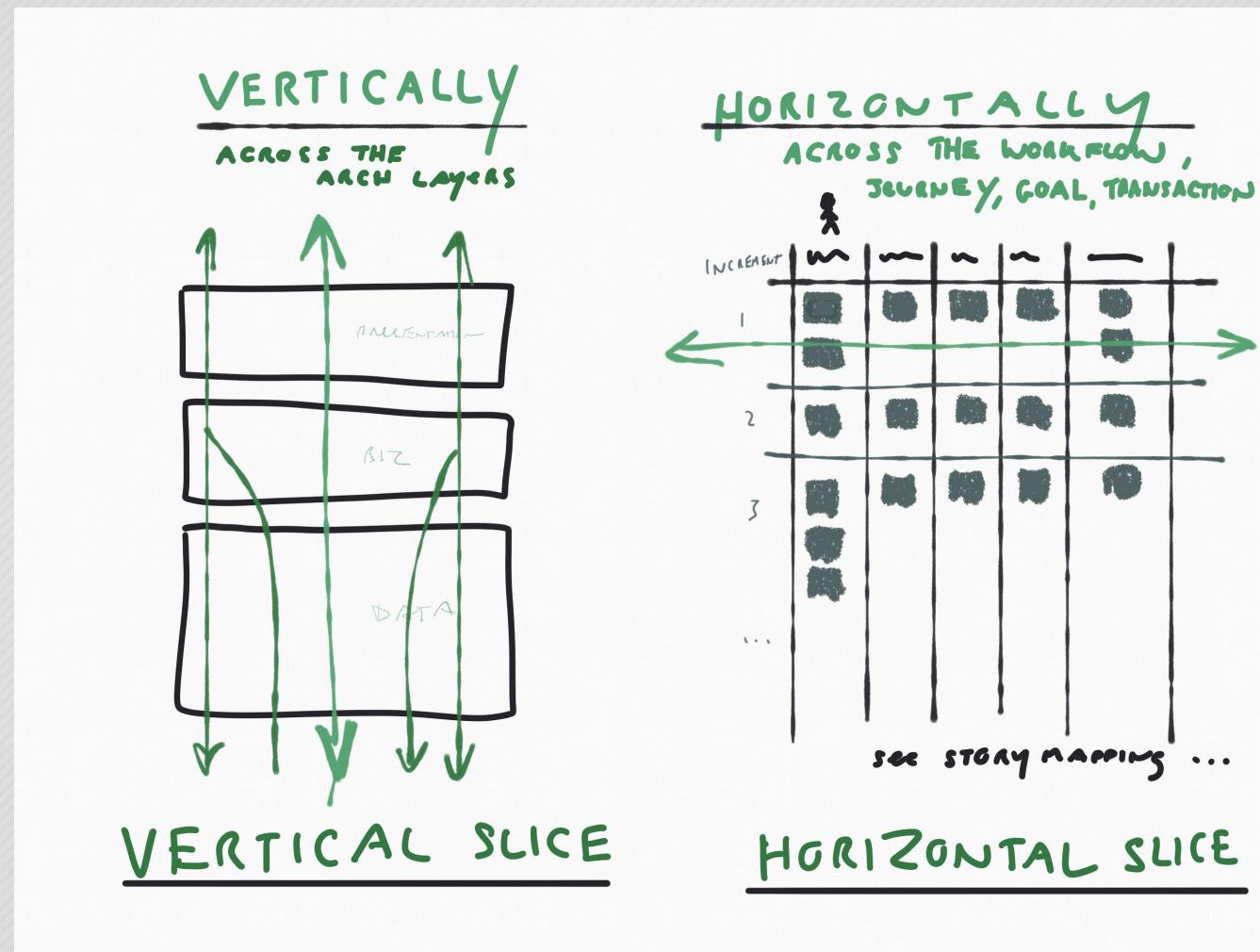
■ PROTOTYPING - DIGITAL

- Prototyping Systems
- Prototyping Aesthetics
 - Storyboards
 - Concept art
 - An animatic is an animated mock-up of the game in action.
 - An interface prototype
 - Audio sketches
- Prototyping Kinesthetics: The kinesthetics are the “feel” of the game, how the controls feel, how responsive the interface is, etc...
- Prototyping Technology
- Designing Control Schemes
- GUI

■ PROTOTYPING

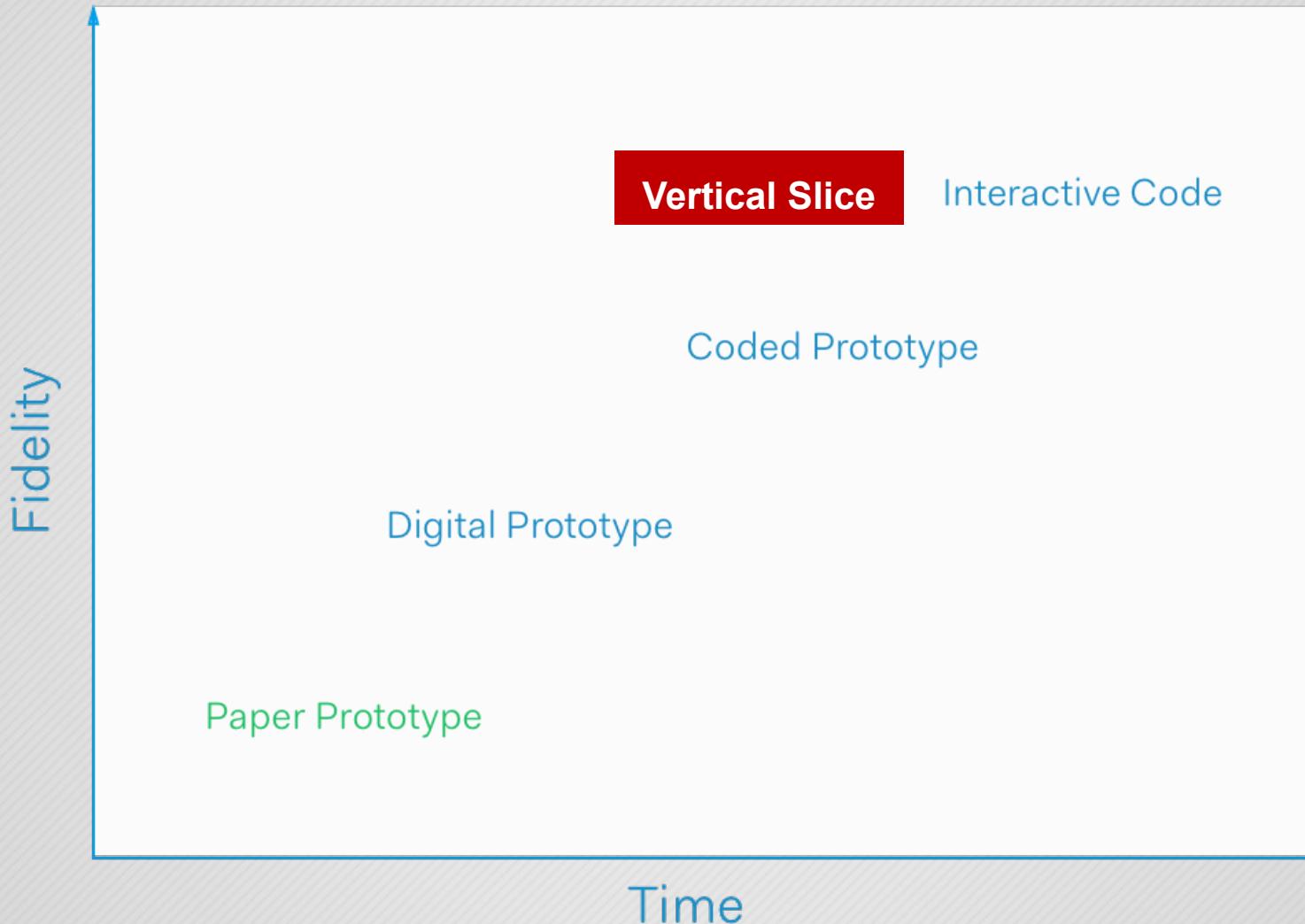


■ PROTOTYPING - VERTICAL SLICE



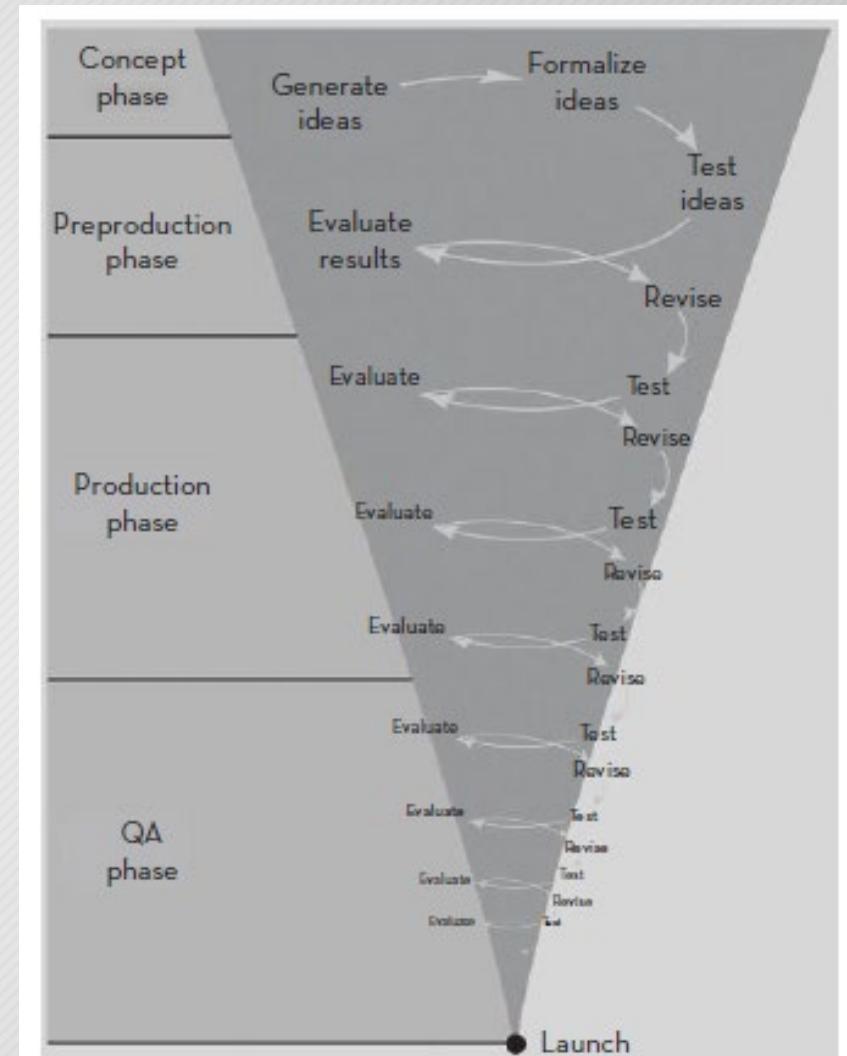
■ PROTOTYPING - VERTICAL SLICE

Definite e descrivete la vertical slice del vostro progetto.



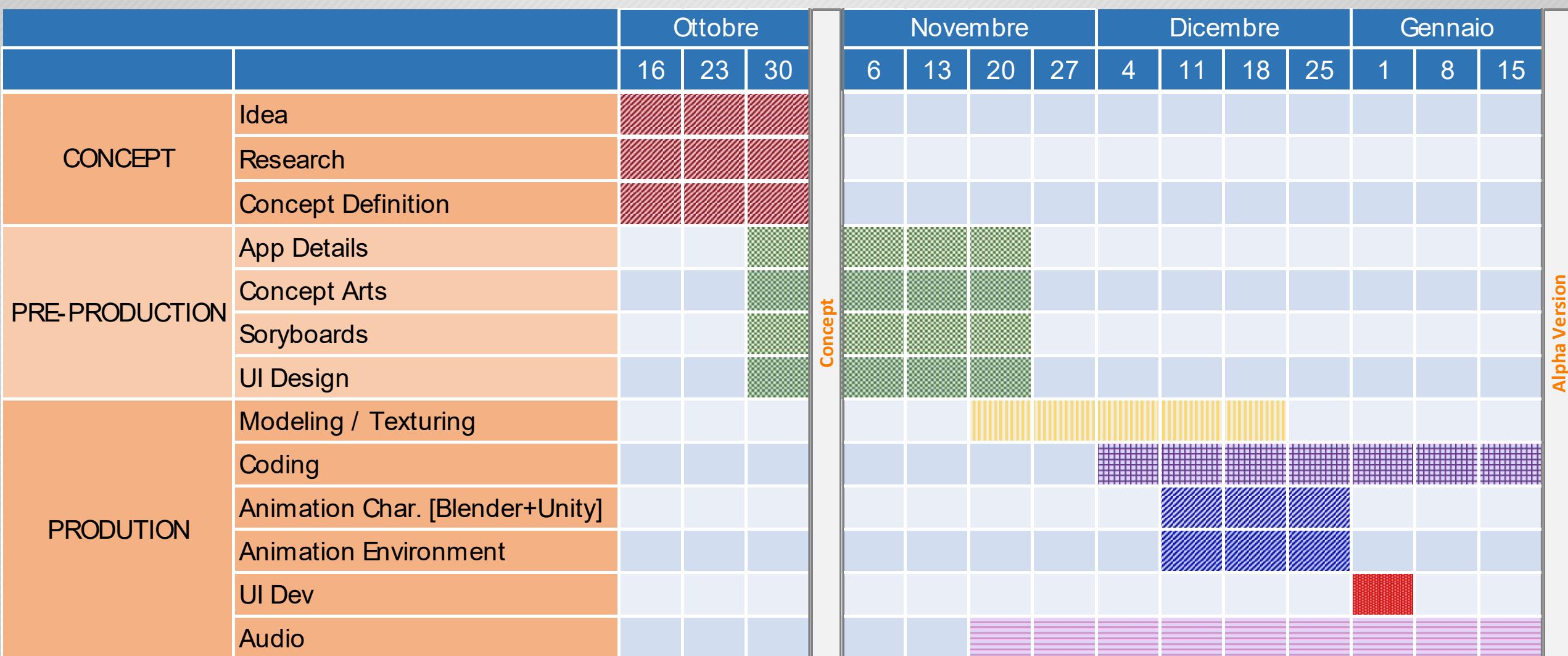
■ PLAYTESTING

“ A continual iterative process of playtesting, evaluating, and revising is the way to keep the game from straying during that long arduous process of development.

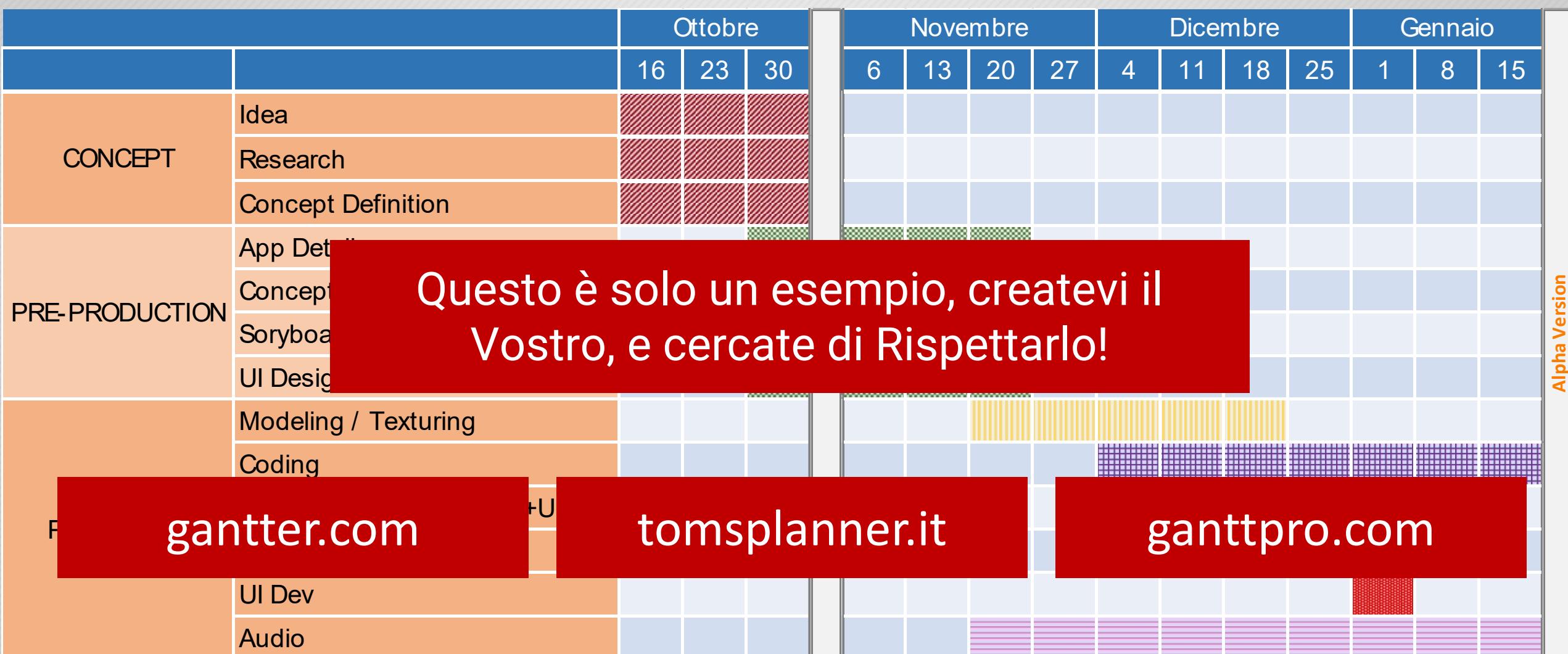


9.1 Model for iterative game design: play-test, evaluate, and revise

■ MANAGEMENT - TEMPO



■ MANAGEMENT - TEMPO



■ MANAGEMENT - TASKS

Hey Francesco Strada! We need you to confirm your email address. [Confirm email](#) · [Remind me later](#)

Game Development Board

Project

Overview

Resources

Ideas

Fishing

Farming

Hunting

Mining

In Progress

Inventory System

Farming system

Bugs

Completed

JPI NM

Show Menu

<https://www.youtube.com/watch?v=3EcPJvONjLM>

<https://www.youtube.com/watch?v=8m859pxcyLY>

[https://www.reddit.com/r/gamedev/comments/6hyv8j/trellokanban users what do your boards look like/](https://www.reddit.com/r/gamedev/comments/6hyv8j/trellokanban_users_what_do_your_boards_look_like/)

■ MANAGEMENT - ASSETS

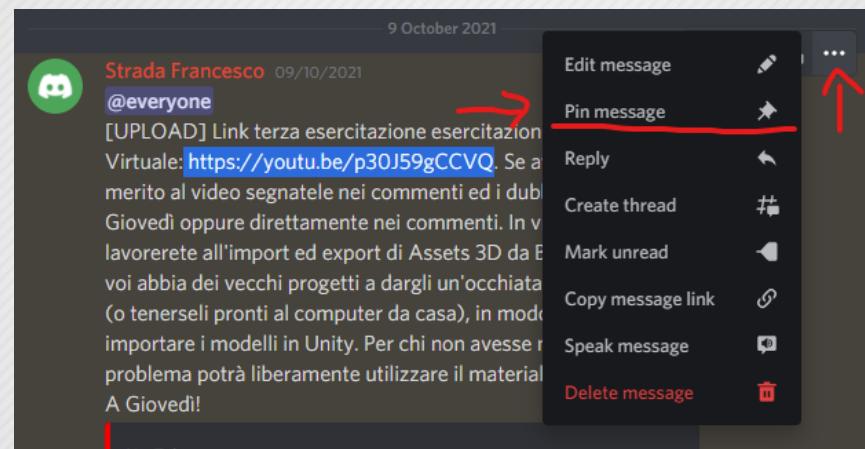
Create una lista esaustiva di tutti gli asset di cui pensate di avere bisogno.

■ PROSSIME SCADENZE

Entro il **28/11/2021** (h. 00:00), consegnare un documento (o presentazione) in cui siano presentate **TUTTE** le informazioni richieste nelle schede **BLU**. Il livello di dettaglio deve essere appropriato ma ricordatevi che prima di tutto lo fate per voi (e per il gruppo). Più siete specifici e dettagliati più facile sarà lo sviluppo dell'applicazione.

■ PROSSIME SCADENZE

Il documento di progetto va scritto in un qualsiasi editor testuale online (Google Doc, Word, ...) ed il link condiviso (con almeno le credenziali da commentatore) sul canale testuale Discord del proprio gruppo. Una volta scritto il messaggio, «pinnatelo al canale».



- 1 documento per gruppo
- All'interno del documento indicare il **numero del gruppo** e i **nomi** dei partecipanti
- Il titolo del documento: **VR22_gXX_ApplicationDesign** (con gXX in riferimento al numero del gruppo)



DOMANDE?