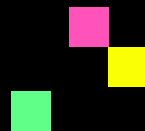
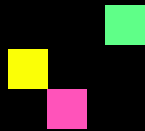


# Preliminary Project

## 2021/2022

START

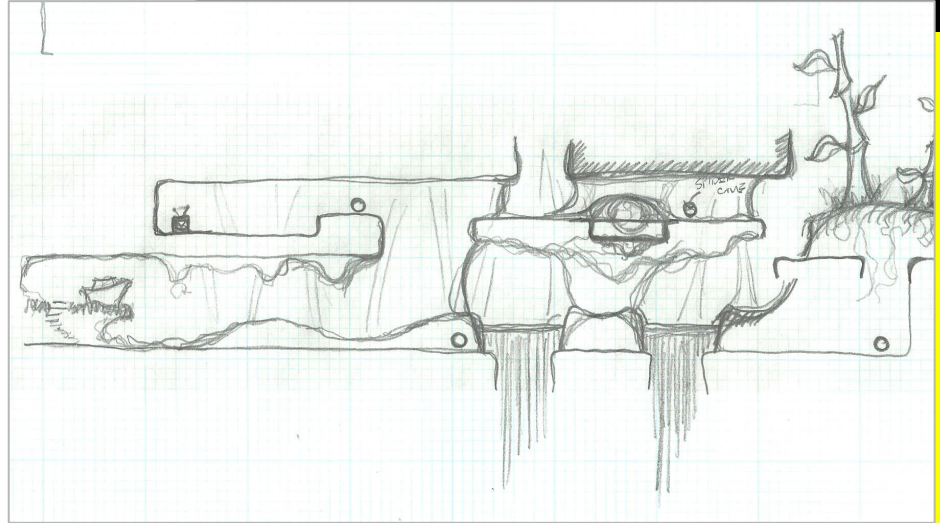


# What is Intended

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## Project Goals

- Develop a **simple game** according to the **theme** (TBA)
- Introduce **some variation(s)** to the original mechanics
- Single player or multiplayer (two players on a keyboard)
- ~~Must~~ Should have a **concept based on FEUP**
- Only **one level** needs to be prototyped (can be more)



# Milestones

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## Game Prototype

- Should **include** most of the game **mechanics** for **one player**
- Reduced interface
- **No menus** needed

## Game Demo

- Should include **interface** and **menus**



# Theme #1 - FEUP\_Jet

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## Requirements

- Endless scroller
- Motion control is Jet Propulsion only
- One key for firing
- Minimum of 2 types of Power-up's (e.g. different guns, continuous fire, shields, etc.)
- Minimum of 1 type of Obstacles
- Minimum of 1 type of Collectibles (give points)
- Minimum of 1 type of Enemy NPC's (that shoot)
- Score

Examples: <https://youtu.be/h00tHgSD98A>



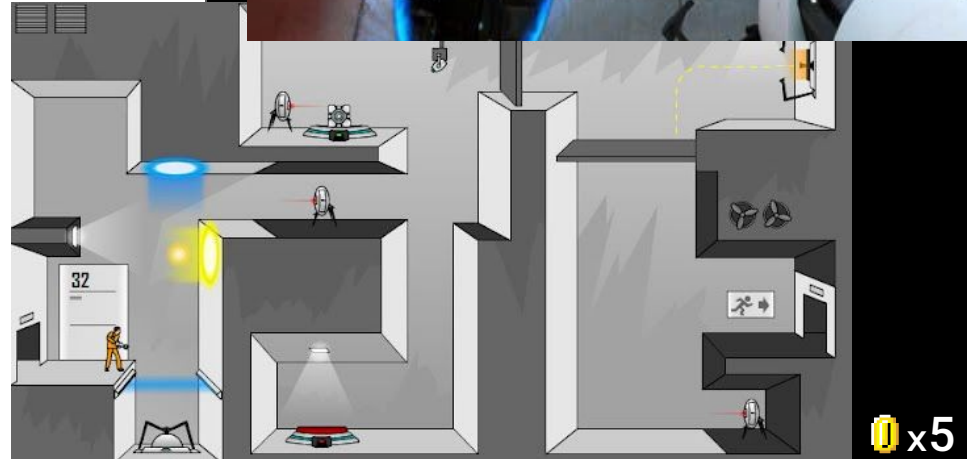
# Theme #2 - FEUP\_Portal

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## Requirements

- Side view
- Simple gravity
- Goal: reach an exit door
- Minimum of 1 type of Objects (pickable, draggable)
- Minimum of 2 types of Switches/Effects (push button opens door, pressure button raises bridge, etc.)
- Minimum of 2 types of Active Traps/Enemies (wall turrets, drones, etc.)
- Score depends on Time To Exit

Examples: <https://youtu.be/TluRVBhmf8w>



# General Rules

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## Flexible, but must be approved

- Can be 2D or 3D
  - (2D usually more manageable at this stage)
- **Choice of game** must be **validated** by **teachers** beforehand
- **Choice of game engine** also must be **validated**



# About the groups

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## Groups of 3 (three)

- Should be as varied as possible (gender, background)
- International students should not be concentrated in the same group(s)
- Should be made considering future teams of 6 for the FP



# Proposed Schedule

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## March 7th to 11th

- Game Concept analysis and discussion
- Team, tools and mechanics planning
- Validate proposal with teachers  
(until March 14th)

## March 14th to 26th

- Explore game engine, work on the mechanics and first prototype

## Week of March 28th

- Prototype presentation, beginning of demo version

## Week of April 4th-9th

- Delivery/presentation of demo version





# Deliverables

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## What you need to produce

- Game\* and Source
- One-minute video\* and 2 snapshots\*
- Presentation
- Short manual\*

(\* - To go to [itch.io](https://itch.io))



# Evaluation Topics

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## Concept

- How the main idea and the theme were translated into a game

## Implementation

- How the game was structured/optimized, and the mechanics implemented

## Experience

- How engaging/addictive it is the final result



# Validation Mon., Feb. 15th

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## Process (links in Moodle PP section)

- Register group in shared list
- Submit form with proposal

## Content

- Group Number
- Group Elements
- Working title
- Brief description (one/two paragraphs)
- Proposed Game Engine
- Foreseen challenges



# Platforms and Libraries

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## Game Engine

- May be selected by the group, must be confirmed with teachers
- If in doubt, here are some suggestions:
  - Unity (2D framework)
  - Godot
  - GDevelop
  - PlayCanvas

## Use of libraries

- Must be confirmed with the teachers
- If they cover a significant part of the mechanics, that must be compensated in other ways



# Suggested Tools

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## Version Control

- Git (GitHub, GitLab, git.fe.up.pt)
- Perforce
- ...

## Documentation

- Wiki, GDocs, Git Pages, ...
- Must produce a PDF version

## Communication/Project Management

- Trello /Asana
- Slack /Discord
- ...



# Preliminary Project

## 2021/2022

