

El Dorado

Short Description

Legends say that “El Dorado” is the holy grail of FEUP bathrooms. The cleanest and the best smelling, without a doubt.

You are a FEUP freshman and you have heard the legends, but the bathroom is nowhere in sight! Make your way through the main building as you try to hold your stomach and dodge evil people who try to prevent you from finding the bathroom!

Try to collect as many toilet paper rolls as possible, and catch power-ups to help you stay on track! Pills will give you five second shields and beans will propel you several meters away. Good luck trying to find it!

Playing Instructions

Use ***Spacebar*** to propel the player. Your propeller has a limit, so you must recharge it, or you will run out of your flatulence fuel. The process of recharging is automatic, so the player needs only to not use the propeller to do so.

Use ***Enter*** to shoot enemies and obstacles. Be aware that whenever you shoot, you also use some of your flatulence to propel the projectile.

There are 4 kinds of enemies and 2 kinds of power-ups in the game.

Enemies:

- Banners: banners hung on the ceiling. *Possible Actions: Avoid or Destroy*
- Static Ground Enemies: people that are standing on the main building. *Possible Actions: Avoid or Kill*
- Walking Ground Enemies: people walking on the main building. *Possible Actions: Avoid or Kill*
- Shooting Enemies: flying enemies that shoot at you. These enemies need 3 hits to be killed. *Possible Actions: Kill*

Power-ups:

- Pill: Shield for 5 seconds. This shield prevents you from dying in this time period.
- Bean: Speed-up for 2 seconds. This bean propels you for 2 seconds, while also making you invincible during the effect.

You can also earn extra points by going through the top of the banners. As they require more skill and propulsion to go through the top, they reward you with 100 extra score points. Killing enemies also gives you more points than just avoiding them. They reward you with 25 extra score points. Besides that, each paper roll caught also gives you 2 points.

Installation Instructions

Windows

In order to run the game in Windows, please download the executable from the releases page in github. After downloading and extracting the zip file, simply run the executable found inside.

MacOS

In order to run the game in MacOS, please download the executable from the releases page in github. After downloading and extracting the zip file, please run the following command:

```
xattr -r -d com.apple.quarantine "<executable path>"
```

This command gives executable permission to the file, which can then be opened by simply double clicking the executable file.

Linux (Ubuntu)

In order to execute the game in Linux, please download the executable from the releases page in github. After downloading and extracting the zip file, please run the following command from the extracted folder:

```
chmod +x Eldorado.x86_64
```

This command gives executable permission to the file, which can then be opened by using the following command:


```
./Eldorado.x86_64
```

Key Highlights

- The movement is not done by the player, as if it would, after some playing time, the positions would be in a very high order of magnitude, making it more difficult to work with. To avoid this, the player only moves along the y axis, and the world around him moves at a speed value that increases over time, increasing the difficulty of the game.
- In order to move the background, 2 images were used. When the leftmost image disappears from the game camera, it is moved to the right of the other image that is currently on the screen. With this method, we only need two images at a time for the game background, which are constantly moving back and forth along the x axis, creating a parallax effect.
- In order to maintain a good frame rate and smoothness on the game, every object is destroyed whenever its destruction does not affect the gameplay. This means: every player projectile is destroyed whenever it leaves the screen on the right side. On the left side of the screen, there is a collision area to remove every enemy or uncaught paper-roll from the scene.

- Enemy, Collectible and Power-Up generation obeys a spawn timer which, when activated, generates one of the three at random. The probabilities of each type are easily adjusted in the code. There is a 35% chance of spawning a paper-roll pattern, 45% of spawning a random enemy and 20% for the power-ups.

Resources Used

- Background Music: "Engenharia", by TEUP
 [TEUP - Engenharia \(Audio\)](#)
- Sound effects were retrieved from [Freesound](#)
- Every art in the game is original, and was made in [Piskel](#)

This project was made in the context of

Desenho e Desenvolvimento de Jogos Digitais

by

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