**Mohammadreza Abolhassani 2034569**

**Game Engine 1 , Homework 2: 2D puzzle game with the theme “pushing”**

**Introduction of the game:**

You play as an astronaut and need to find the big crystal and push it to the end of the level. You will need to push some stone blocks to make the path for the crystal. The player can collect gems on the way to get a higher score. The astronaut can jump, and once in the air, he can activate thrust by pressing and holding the jump button for a maximum of 1 second. You can only use thrust once per jump. You can pause the game by pressing [Esc] button on keyboard or [Start] button on Gamepad. Graphical user interface

Description automatically generated

**Must-have features:**

* Tiled or sliced sprites: used. The walk cycle animation for instance uses sliced sprites
* Physics(Colliders2D + RigidBody2D): used on the character as well as crystals and stone blocks.
* Cinemachines’s 2D camera + confiner: used
* Pixel perfect camera: used
* Tilemap: I have 2 tilemaps, one with a collider for the ground and one for plants and rocks that doesn’t have a collider.
* Rule tiles: I use a rule tile named Stone\_Tile for the ground.
* 2D Animations: I have an animation for walk cycle and another one for thrust.
* Pushable objects: Both crystals and stone-blocks can be pushed.
* Instantiate: I have included three levels which I instantiate one after another
* PlayerPrefs: when you collect gems, you get score and at the end high-score is saved in PlayerPrefs and loaded the next time.

**Extra features: (At least 2 out of 5)**

* Buttons for Retry and Exit
* Music loop

Source for sound file : <https://freesound.org/people/Flick3r/sounds/48543/>

**Asset-store packages:**

Name of the package: **Free Pixel Space Platform Pack**

(Only the png files were imported.)

Publisher’s Info:

* Aiden Art
* <https://jerrofficial.wixsite.com/aidenart>
* [jerrofficial@gmail.com](mailto:jerrofficial@gmail.com)

Unity Asset Store Link: <https://assetstore.unity.com/packages/2d/characters/free-pixel-space-platform-pack-146318#description>

**Build:**

Included, with icon, version 1.0.0

**Code:**

no third-party code was used.