

INNOVATE-IT



Game Design Primary Challenge

Innovate-IT Showcase, Spring 2024

Overview

For the 2024 IT Showcase, you must make an **original 3D platformer game** using the Unity engine. This game will be the culmination of your learning throughout the last year and will be an excellent way to show off the skills you have developed. While the game you create should be original, you will be provided with a starter template with an example player controller. You are welcome to ignore the template and create your own 3D platformer, though!

In addition to a game, you will also have to market and explain your game. You will be responsible for a "quick start" guide for your game and a short presentation explaining your game.

Requirements

Game

Your game must be virtual (or potentially virtual with a physical component) and created using the Unity engine. You are welcome to use any free assets you find (or create your own), but you may not use assets that you need to purchase or have already purchased, as this is unfair to other participants.

Additionally, **your game must be a 3D platformer**. Some good examples of 3D platformers are Crash Bandicoot, Super Mario 64, and Super Mario Odyssey. Some of the more common characteristics of a 3D platformer are:

- 3D graphics
- Platforming style movement/gameplay (jumping between platforms, defeating enemies, collecting items/points/power ups)
- A definitive start and end for a level; multiple levels

That being said, your 3D platformer is not required to contain all elements of a 3D platformer. Your game should be recognizable as a 3D platforming game but can have a creative twist. If you have questions about this, please reach out to Innovate-IT staff for assistance.

Finally, a note on the appropriateness of your creations: Your game should be appropriate for both your age group (high school) and venue (a public event containing people of many backgrounds and beliefs). Your game is required to be appropriate for both categories. You will be penalized or potentially disqualified if your game is considered to be inappropriate by the judgment of a judge, the venue leader, or Innovate-IT management. If you are concerned or questioning whether a mechanic, element, or effect in your game is appropriate, please reach out to Innovate-IT staff.

INNOVATE-IT



Quick Start Guide

In addition to your game, you will also need to create a quick start guide. The guide is a maximum of three pages, including graphics, text, and anything else you want to include. The quick start guide needs to give a quick overview of the game.

You are required to have sections discussing the following:

- Theme/Inspiration
- Mechanics of your game relating to 3D platforming
- Control Scheme

Other typical sections (which can be added but not required):

- Story
- Images and Art
- Credits
- Hints, Tips, and Tricks
- Frequently Asked Questions (FAQ)

Presentation

Finally, you are required to create a pitch presentation for your game lasting less than five minutes. This presentation can be live or pre-recorded, whichever your group is most comfortable with. If you pre-record your presentation, you will still need to be present to converse with judges. Questions can (and will) be asked following the presentation.

The presentation's goal is to sell your game (market and present your game to the audience) and explain your game. Some good questions to answer in your five-minute presentation (suggestions, not requirements):

- What makes your game unique?
- What makes your game fun?
- Why should the audience play your game?
- What interesting/cool techniques did you use when implementing your game?
- What were your inspirations?
- What mechanics do you want to show off to the audience?

INNOVATE-IT



Scoring and Rubric

A full rubric is provided separately. Here is a brief distribution of points:

(60%) – Game

Games will be judged on code quality/readability, playability, style/theme, fulfilment of requirements, and quality of implemented mechanics.

(10%) – Quick Start Guide

Quick start guides will be judged on design, readability, and inclusion of required information.

(30%) – Presentation

Presentations will be judged on marketability/creativity, clarity of game explanation, production value/presentation quality, and ability to interact actively with the audience.

Suggestions and Extras

- You are required to use Unity in some fashion, but you could also implement something partially physical. If your group enjoys working with electronics, you could make a controller. If you are interested in (and have access to) virtual reality (VR), you could incorporate VR. If you want "physical" randomness, you could ask the user to roll dice. Your options are open as long as you use Unity in some way. Your team must provide any equipment needed for a physical part of your game at the showcase.
- Plan before you start implementing. Writing a game design document (GDD) is suggested to help plot out the theme, elements, and organization of your game. There is a multitude of guides online ([link](#)). A guide is a great tool to reference while creating your game.

Free Resources

<https://github.com/ellisonleao/magictools> (a bit of everything, not all for free, though)

<https://www.mixamo.com> (free 3D models and animations)

<https://opengameart.org/> (free art, but check licenses)

<https://www.blender.org/> (free modeling/animation software)

Lots more elsewhere – just be aware of licensing and crediting content creators.