



Introduction to Unity

Games courses at Falmouth

Games courses at Falmouth

- ▶ **Studio-based:** 100% coursework, mainly team-based game development projects

Games courses at Falmouth

- ▶ **Studio-based:** 100% coursework, mainly team-based game development projects
- ▶ BA Game Development

Games courses at Falmouth

- ▶ **Studio-based:** 100% coursework, mainly team-based game development projects
- ▶ BA Game Development
 - ▶ Six routes: animation, art, audio, design, programming, writing

Games courses at Falmouth

- ▶ **Studio-based:** 100% coursework, mainly team-based game development projects
- ▶ BA Game Development
 - ▶ Six routes: animation, art, audio, design, programming, writing
- ▶ BSc Computing for Games

Games courses at Falmouth

- ▶ **Studio-based:** 100% coursework, mainly team-based game development projects
- ▶ BA Game Development
 - ▶ Six routes: animation, art, audio, design, programming, writing
- ▶ BSc Computing for Games
- ▶ BA Game Art

What is Unity?

What is Unity?

- ▶ A **game engine**

What is Unity?

- ▶ A **game engine**
- ▶ Two parts:

What is Unity?

- ▶ A **game engine**
- ▶ Two parts:
 - ▶ **Editor**: used by developers to create the game

What is Unity?

- ▶ A **game engine**
- ▶ Two parts:
 - ▶ **Editor**: used by developers to create the game
 - ▶ **Player**: packages the game to run on the customer's machine

Why Unity?

Why Unity?

- ▶ It's **cross platform**

Why Unity?

- ▶ It's **cross platform**
 - ▶ Editor runs on Windows and Mac

Why Unity?

- ▶ It's **cross platform**

- ▶ Editor runs on Windows and Mac
- ▶ Games can run on Windows, Mac, Linux, Android, iOS, all major consoles, and web via HTML5

Why Unity?

- ▶ It's **cross platform**
 - ▶ Editor runs on Windows and Mac
 - ▶ Games can run on Windows, Mac, Linux, Android, iOS, all major consoles, and web via HTML5
- ▶ It's relatively (!) **easy to use**

Why Unity?

- ▶ It's **cross platform**
 - ▶ Editor runs on Windows and Mac
 - ▶ Games can run on Windows, Mac, Linux, Android, iOS, all major consoles, and web via HTML5
- ▶ It's relatively (!) **easy to use**
- ▶ Very flexible, can be **programmed** using C#

Why Unity?

- ▶ It's **cross platform**
 - ▶ Editor runs on Windows and Mac
 - ▶ Games can run on Windows, Mac, Linux, Android, iOS, all major consoles, and web via HTML5
- ▶ It's relatively (!) **easy to use**
- ▶ Very flexible, can be **programmed** using C#
- ▶ Has **asset pipelines** for artists, animators, musicians etc.

Why Unity?

- ▶ It's **cross platform**
 - ▶ Editor runs on Windows and Mac
 - ▶ Games can run on Windows, Mac, Linux, Android, iOS, all major consoles, and web via HTML5
- ▶ It's relatively (!) **easy to use**
- ▶ Very flexible, can be **programmed** using C#
- ▶ Has **asset pipelines** for artists, animators, musicians etc.
- ▶ **Asset store** to download sprites, 3D models, animations, C# scripts, ...

Made with Unity

<https://madewith.unity.com/>

Key concepts

Key concepts

- ▶ A game is made up of one or more **scenes**

Key concepts

- ▶ A game is made up of one or more **scenes**
- ▶ Each scene contains a number of **game objects**

Key concepts

- ▶ A game is made up of one or more **scenes**
- ▶ Each scene contains a number of **game objects**
- ▶ Each game object has several **components** which affect how it looks, moves and behaves

Key concepts

- ▶ A game is made up of one or more **scenes**
- ▶ Each scene contains a number of **game objects**
- ▶ Each game object has several **components** which affect how it looks, moves and behaves
- ▶ Programmers can create custom components called **behaviours**

Key concepts

- ▶ A game is made up of one or more **scenes**
- ▶ Each scene contains a number of **game objects**
- ▶ Each game object has several **components** which affect how it looks, moves and behaves
- ▶ Programmers can create custom components called **behaviours**
- ▶ NB: behaviours can create or delete game objects, or change scenes...

Key concepts

- ▶ A game is made up of one or more **scenes**
- ▶ Each scene contains a number of **game objects**
- ▶ Each game object has several **components** which affect how it looks, moves and behaves
- ▶ Programmers can create custom components called **behaviours**
- ▶ NB: behaviours can create or delete game objects, or change scenes...
- ▶ No main loop, but behaviours have an `Update` method which is called each frame

What to make?

<http://www.ludocraft.com/gigster/index.html>

What to make?

What to make?

- ▶ Think simple — **don't overscope!**

What to make?

- ▶ Think simple — **don't overscope!**
- ▶ Work in **teams**

What to make?

- ▶ Think simple — **don't overscope!**
- ▶ Work in **teams**
- ▶ Focus on **core mechanics** — what will the player do in your game, and why is that fun?

What to make?

- ▶ Think simple — **don't overscope!**
- ▶ Work in **teams**
- ▶ Focus on **core mechanics** — what will the player do in your game, and why is that fun?
- ▶ Think about your **unique selling points (USPs)** — what will make your game different from all the others?

What to make?

- ▶ Think simple — **don't overscope!**
- ▶ Work in **teams**
- ▶ Focus on **core mechanics** — what will the player do in your game, and why is that fun?
- ▶ Think about your **unique selling points (USPs)** — what will make your game different from all the others?
- ▶ Aim for a **minimum viable product** — don't worry about polishing yet

Unity tutorial

http://bit.ly/unity_roll_a_ball