



Unity Bootcamp: 3D Game Development

List of Course Resources

For more courses, resources and workshops, visit <https://zerotomastery.io>

1. Getting Started

What is Unity?

- Unity - <https://unity.com/>

3. Designing a Scene

Importing Unity Package Files

- Game Assets.zip

Model File Formats

- Supported Model File Formats - <https://docs.unity3d.com/Manual/3D-formats.html>

Where to find Game Assets?

- Kenney - <https://kenney.nl/>
- CC0 License - <https://creativecommons.org/publicdomain/zero/1.0/>
- Kay Lousberg - <https://kaylousberg.itch.io/>

4. Getting Started with C#

Installing Visual Studio Code

- Visual Studio - <https://visualstudio.microsoft.com/>
- Visual Studio Code - <https://code.visualstudio.com/>
- Rider - <https://www.jetbrains.com/rider/>
- .NET Platform - <https://dotnet.microsoft.com/en-us/download>

Creating a Namespace

- Keywords - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/keywords/>
- Names of Namespaces - <https://docs.microsoft.com/en-us/dotnet/standard/design-guidelines/names-of-namespaces>

Understanding Variables



- Data Types - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/builtin-types/built-in-types>

Access Modifiers

- Access Modifiers - <https://docs.microsoft.com/en-us/dotnet/csharp/programming-guide/classes-and-structs/access-modifiers>

Inheritance Basics

- MonoBehavior - <https://docs.unity3d.com/ScriptReference/MonoBehaviour.html>

Control Flow

- Comparison Operators - <https://docs.microsoft.com/en-us/dotnet/csharp/language-reference/operators/comparison-operators>

Debug Class

- Debug Class - <https://docs.unity3d.com/ScriptReference/Debug.html>

Exploring the C# Documentation

- Microsoft Documentation - <https://learn.microsoft.com/en-us/docs/>

5. Player Movement

Setting the Action Type

- Action Type - <https://docs.unity3d.com/Packages/com.unity.inputsystem@1.4/manual/Actions.html#action-types>

Reading the Callback Context

- CallbackContext - <https://docs.unity3d.com/Packages/com.unity.inputsystem@1.4/api/UnityEngine.InputSystem.InputAction.CallbackContext.html?q=CallbackContext>

Grabbing a Component

- NavMeshAgent - <https://docs.unity3d.com/ScriptReference/AI.NavMeshAgent.html>
- Order of Execution - <https://docs.unity3d.com/Manual/ExecutionOrder.html>

Component Caching and Organizing Code

- Avoid GetComponent - <https://github.com/JetBrains/resharper-unity/wiki/Avoid-usage-of-GetComponent-methods-in-performance-critical-context>

Exploring the Unity Documentation

- Unity Documentation - <https://docs.unity3d.com/Manual/index.html>



7. AI Movement

Calculating Distance with Vectors

- Vector3.Distance - <https://docs.unity3d.com/ScriptReference/Vector3.Distance.html>

Custom Gizmos

- Gizmos Class - <https://docs.unity3d.com/ScriptReference/Gizmos.html>

8. Patrolling with Splines

Installing the Splines Package

- Splines - <https://docs.unity3d.com/Packages/com.unity.splines@2.1/manual/index.html>

Creating a Patrol State

- Starter Patrol State - <https://gist.github.com/ZTMLuisRamirez/94653065acc14a35e1f63985e1bf664c>

Extracting Models

- Extracting Models.zip

9. Player & Enemy Stats

Updating the Speed

- Updating the Speed.zip

10. Animation

Updating Character Models

- Kay Lousberg - <https://kaylousberg.itch.io/>

Updating Parameters on Animator Controllers

- Animator Class - <https://docs.unity3d.com/ScriptReference/Animator.html>

Preparing the Animator Controller

- Using the Animations Tutorial - <https://www.youtube.com/watch?v=rwst5GnUU7s>

Adding a Blend Tree

- Blend Tree - <https://docs.unity3d.com/Manual/class-BlendTree.html>

Updating the Animator Speed

- Animator Class - <https://docs.unity3d.com/ScriptReference/Animator.html>

Custom Tags

- Tags - <https://docs.unity3d.com/Manual/Tags.html>
- Custom Tags.zip



11. Combat

Box Ray Casts

- Physics- <https://docs.unity3d.com/ScriptReference/Physics.html>

Handling the Enemy's Defeat

- Defeated State Gist - <https://gist.github.com/ZTMLuisRamirez/55cbd492c9a5421cc3f4d9402b3aa13d>
- Handling the Enemies Defeat.zip

12. User Interfaces

Creating a Custom Scene

- Comparison of UI System - <https://docs.unity3d.com/2022.2/Documentation/Manual/UI-system-compare.html>

Custom Font

- Odibee Sans - <https://fonts.google.com/specimen/Odibee+Sans>
- Font Suggestions - <https://www.helpmegeek.com/geeky-google-fonts-tech-projects/>

Adding Buttons

- USS Properties - <https://docs.unity3d.com/Manual/UIE-USS-Properties-Reference.html>

Handling the Selection

- Button Class - <https://docs.unity3d.com/2019.1/Documentation/ScriptReference/UI.Button.html>

Toggling the UI's Display

- GetActiveScene - <https://docs.unity3d.com/ScriptReference/SceneManagement.SceneManager.GetActiveScene.html>

Null Conditional Operator

- MonoBehaviour Class - <https://docs.unity3d.com/ScriptReference/MonoBehaviour.html>

Updating the Health Label

- Label Class - <https://docs.unity3d.com/ScriptReference/UIElements.Label.html>

Creating a Billboard

- Late Update - <https://docs.unity3d.com/ScriptReference/MonoBehaviour.LateUpdate.html>
- Creating a Billboard.zip

13. Dialogue

Installing Ink



- Ink - <https://www.inklestudios.com/ink/>

Adding Multiple Choice

- Ink Documentation - <https://github.com/inkle/ink/blob/master/Documentation/WritingWithInk.md>

Loading a Story

- Ink Unity Integration - <https://assetstore.unity.com/packages/tools/integration/ink-unity-integration-60055>

Dialogue UI State

- UI Dialogue State Starter File - <https://gist.github.com/ZTMLuisRamirez/fdc221a82cfb757c6163f733b445a809>

Fixing a Few Bugs

- Fixing a Few Bugs.zip

14. Quests & Rewards

Preparing the Quest Item State

- Quest Item State - <https://gist.github.com/ZTMLuisRamirez/dac95dc94729cd68aa009e7e834a586a>

Story Variables and Conditional Statements

- Ink Variables - <https://github.com/inkle/ink/blob/master/Documentation/RunningYourInk.md#settinggetting-ink-variables>

Setting Active Game Objects

- Setting Active Game Objects.zip

15. Scene Management

Detecting the Player With Triggers

- Collider - <https://docs.unity3d.com/ScriptReference/Collider.html>

Teleporting to the Next Scene

- Teleporting to the Next Scene.zip

16. Saving Data

Understanding PlayerPrefs

- PlayerPrefs Class - <https://docs.unity3d.com/ScriptReference/PlayerPrefs.html>



- Saving Data - <https://blog.unity.com/technology/persistent-data-how-to-save-your-game-states-and-settings>

Updating NPCs with Quest Items

- Updating NPCs with Quest Items.zip

17. Camera, Lights, and Action!

Playing Sequences

- PlayableDirector Class - <https://docs.unity3d.com/ScriptReference/Playables.PlayableDirector.html>

Custom Awake Behavior

- Custom Awake Behavior.zip

18. Audio

Audio Components

- Audio Clip - <https://docs.unity3d.com/2022.1/Documentation/Manual/class-AudioClip.html>

Finding Audio

- Unity Asset Store - <https://assetstore.unity.com/>
- Freesound - <https://freesound.org/>
- Chosic - <https://www.chosic.com/free-music/games/>
- Audio Jungle - <https://audiojungle.net/>

Playing an Audio Clip

- AudioSource - <https://docs.unity3d.com/ScriptReference/AudioSource.html>

Displaying the Victory/Game Over UI

- UI States - <https://gist.github.com/ZTMLuisRamirez/b1146e32a47ff555fcefc334f5289d11>

Playing Audio for Game Completion

- PlayOneShot - <https://docs.unity3d.com/ScriptReference/AudioSource.PlayOneShot.html>

Fading Out Audio

- Fading Out Audio.zip

19. Polishing the Game

Adding Pause States



- UI Pause State - <https://gist.github.com/ZTMLuisRamirez/7bb70192757f1a3a1447c991d2baa08d>

Setting the Time Scale

- Time.timeScale - <https://docs.unity3d.com/ScriptReference/Time-timeScale.html>

Supporting Additional Input Devices

- Input Device Support - <https://docs.unity3d.com/Packages/com.unity.inputsystem@1.0/manual/SupportedDevices.html>
- Supporting Additional Input Devices.zip

20. Publishing a Game

Publishing to Itch.io

- Itch.io - <https://itch.io/>
- Your first itch.io Page - <https://itch.io/docs/creators/getting-started>
- Project Description Gist - <https://gist.github.com/ZTMLuisRamirez/2277b1d8e72cb5035ce7559f45ded057>
- Publishing to Itchio.zip

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