

# Unity Bootcamp

By Michael Veazanchin

<http://issue.verynotgood.info/cap6121/>

## Unity 3D Download

◇ <https://unity3d.com/get-unity/download?ref=personal>



**DOWNLOAD UNITY**

Hello! We know you want to quickly download and start using Unity, so let's go!

 **DOWNLOAD INSTALLER**

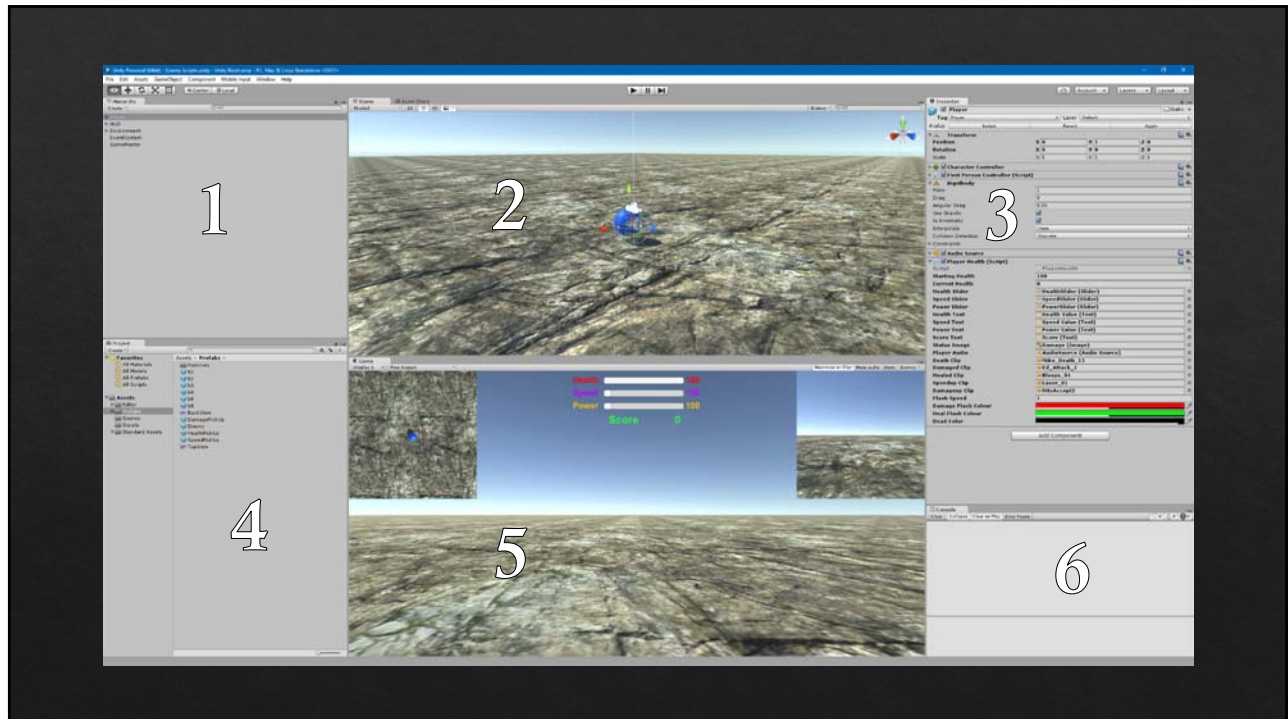
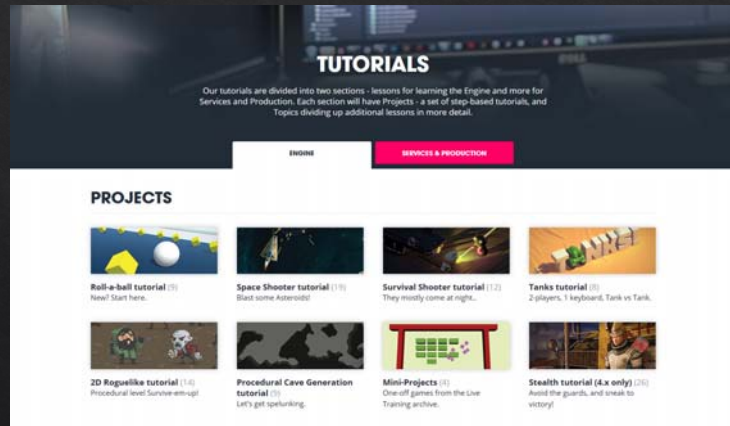
[Release notes](#) [System requirements](#) [Unity 5 upgrade guide](#)

RELEASE DATE	VERSION	FILE SIZE	PLATFORM
18 DEC 2015	5.3.1	636KB	WINDOWS *

ADDITIONAL DOWNLOADS  
FOR WINDOWS \*

# Unity 3D Tutorials

◆ <https://unity3d.com/learn/tutorials>



## Unity 3D Basics

- ◆ Scene
  - ◆ Top level. Contains various objects and scripts
- ◆ GameObject
  - ◆ Part of the scene as static parts or can be instantiated through scripts
  - ◆ Prefab – used to save various settings of GameObject for later instantiation
- ◆ Scripts
  - ◆ Written in C# or Javascript
  - ◆ Attached to various GameObjects in the scene to execute

## Unity 3D Basics - Script

- ◆ Most scripts inherit from MonoBehaviour
- ◆ Default functions when creating a script
  - ◆ MonoBehaviour.Start()
    - ◆ Executed when the game object is created and script is enabled
    - ◆ Executed only once
  - ◆ MonoBehaviour.Update()
    - ◆ Called each frame if the script is enabled
- ◆ Other functions
  - ◆ MonoBehaviour.Awake()
    - ◆ Similar to Start(), executed once. Awake() is called before any Start() functions
  - ◆ MonoBehaviour.OnApplicationQuit()
    - ◆ Sent to all game objects before the application is quit.

## Unity 3D Basics - Script

- ◇ Overall execution flow
- ◇ Start() is called from all objects in the scene
  - ◇ Use this to initialize values, set up any references to other GameObjects, etc.
- ◇ Update() is called repeatedly each frame
  - ◇ Use this to perform any needed calculations to update the state of the GameObjects between frames
  - ◇ Time between Update() calls is not guaranteed .
  - ◇ In case of things like movement use Time.deltaTime to get time since last frame to properly calculate delta distance traveled etc.

## Live Demo

- ◇ Also known as when things break