

# Intro to Unreal Engine 4

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Electronic Armory

# Question of the Day

In one sentence, describe the game you want to build within a one year time period.





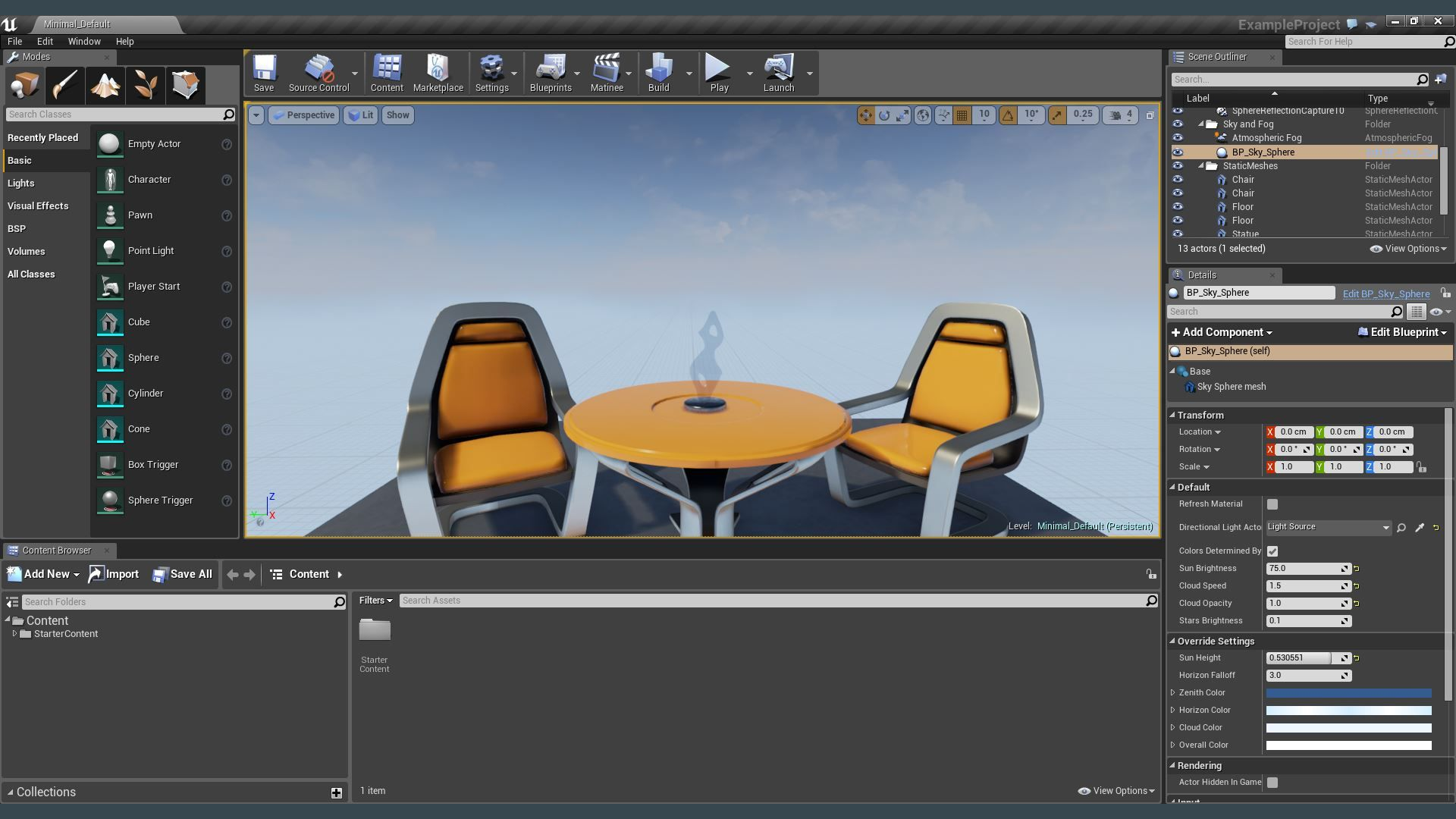






UNREAL ENGINE 5









# Why?

- Free to use and learn on
- ~~Free up to \$3,000 per quarter (5% of gross after that)~~
- Free for up to \$1 million in revenue.
- Engine source code is open source.
  - Look at and learn from the implementation of FString for example
  - When debugging, see where the code traverses to, or came from.
- Unreal Dev Grants from \$5,000-\$50,000 for innovative uses of UE4
- Free assets to actual games from Epic Games (Infinity Blade)
- Edit in VR

# Unity vs. Unreal



- Free version but Unity splash
- \$35/month for basic
- 2D & 3D capabilities
- Visual programming addon
- C#
- Severely limits features
- No cloud support on free tier

- Free to use, access to source code
- Free up to \$1 million in revenue
- 2D & 3D capabilities
- Visual programming w/ Blueprints
- C++ and Blueprints
- All features available
- Cloud support is free

# Supported Platforms

- Windows PC, PlayStation 4, Xbox One, Mac OS X, iOS, Android, VR (including but not limited to SteamVR/HTC Vive, Oculus Rift, PlayStation VR, Google VR/Daydream, OSVR and Samsung Gear VR), Linux, SteamOS, and HTML5.
- You can run the Unreal Engine Editor on Windows, OS X and Linux.

# Resources

[Documentation](#)

[Unreal Engine News](#)

[Marketplace](#)

[Learning Portal](#)

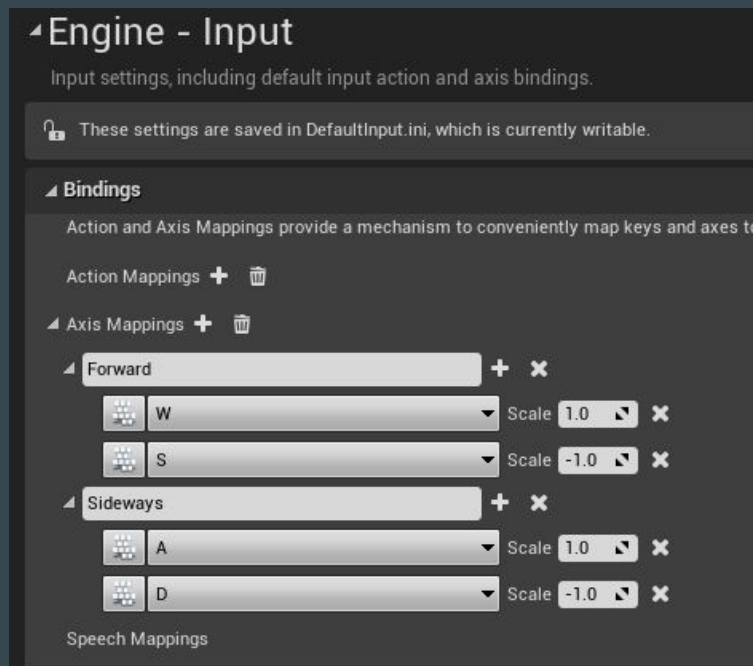
# First Game Steps - Setting up the Camera

1. Create empty project
2. Add camera and position top down
3. While camera is selected, go to the Details tab (normally on the right)
4. Find Auto Player Activation and set to Player 0



# First Game Steps - Setting up the Inputs

1. Go to File -> Project Settings -> Inputs and add keyboard keys to Axis



# First Game Steps - Add your player

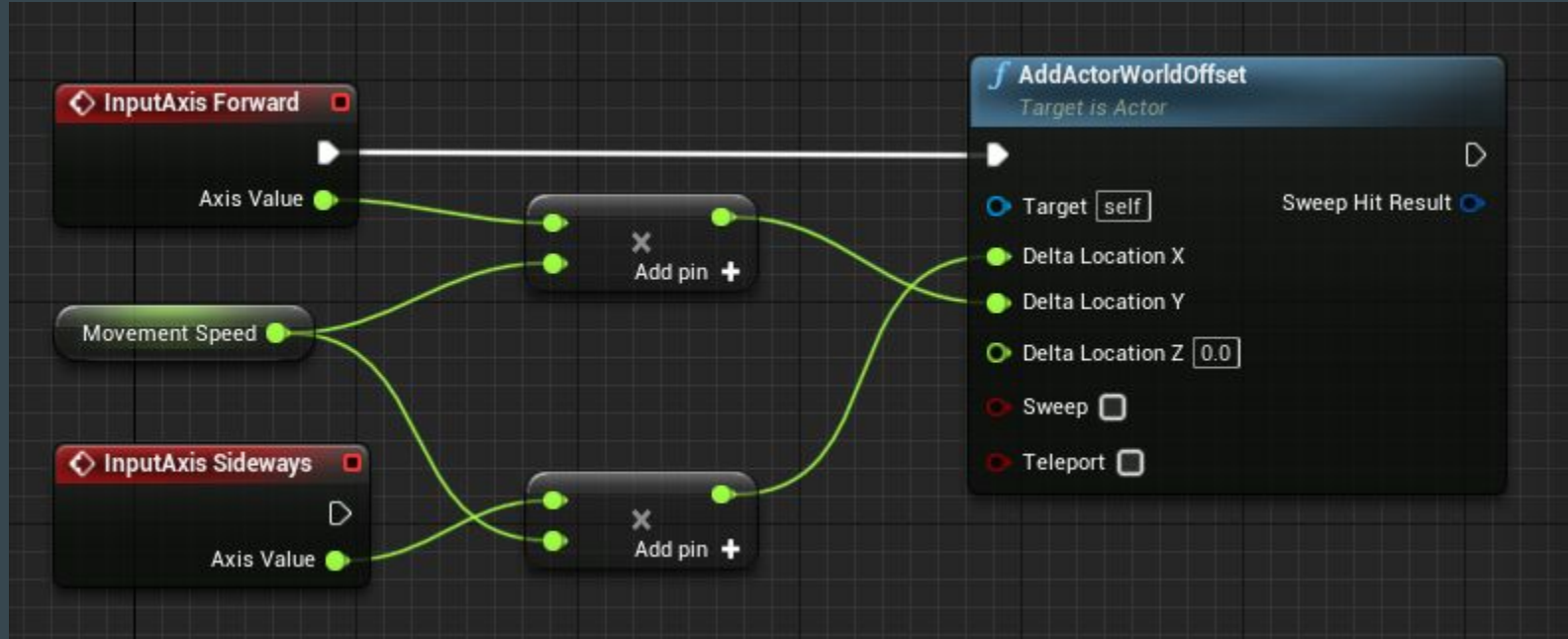
1. Import your character mesh
2. Right click in the Content Browser and select Blueprint Class
3. Subclass the Pawn class
4. Open that new Pawn class and add a Static Mesh Component
5. Set the mesh to your character mesh

# First Game Steps - Setting Up the Game Mode

1. Right click in the content area and select Blueprint Class
2. Subclass GameMode and name your subclass
3. Select Class Defaults and choose your Pawn subclass

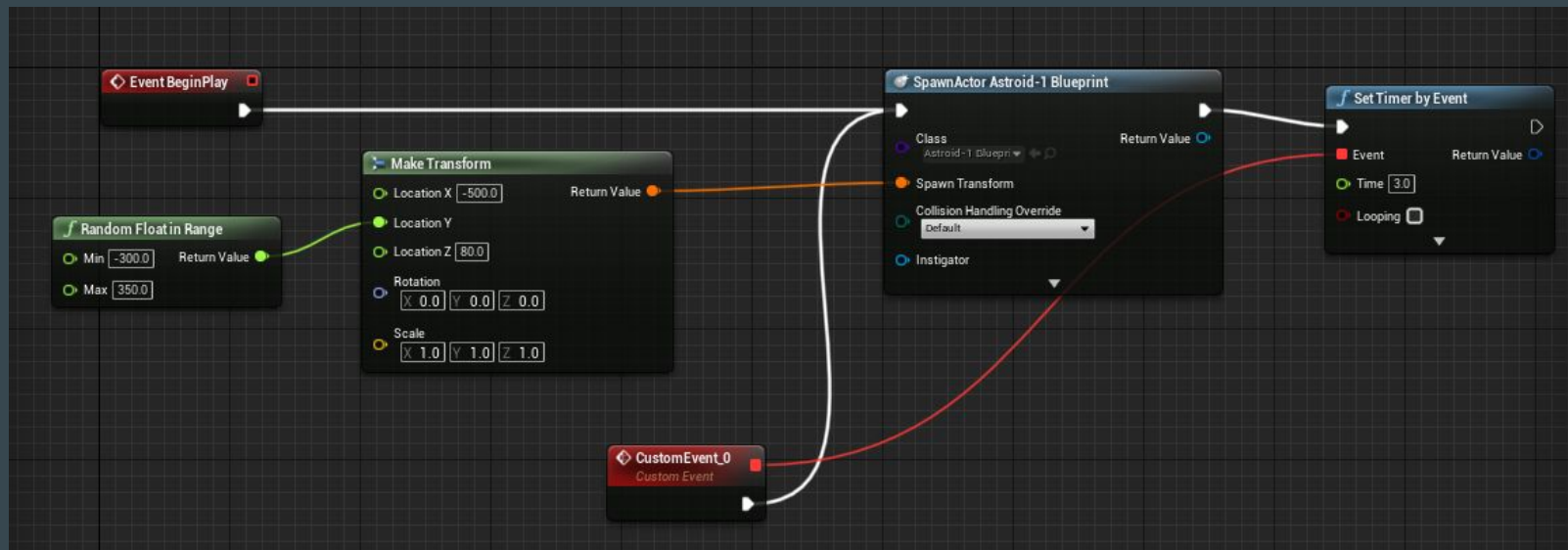
# First Game Steps - Setting Up the Pawn

1. In the construction script, use the SetActorLocation node to a starting point
2. Hook up the InputAxis events to move the pawn



# First Game Steps - Enemy Spawning with Game Mode

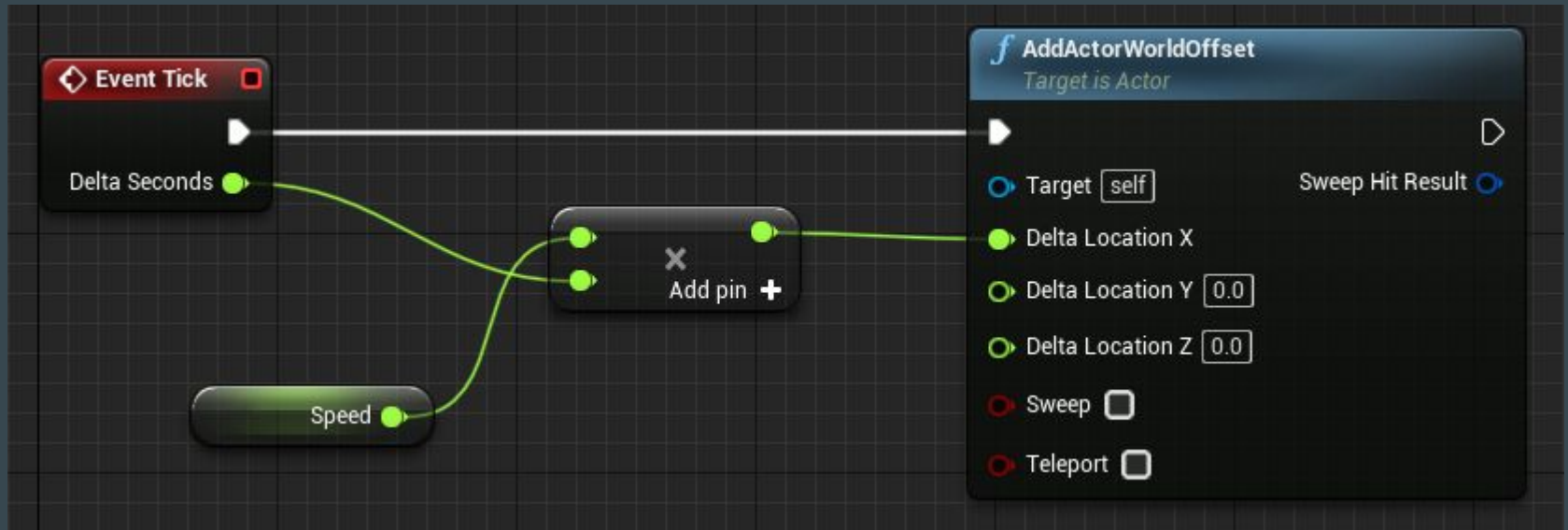
1. Start spawning enemies with “SpawnActor from Class” node
2. Add a timer to spawn more enemies





# First Game Steps - Setting up the enemy

1. Add the ability to move the enemy across the screen
2. Add a Box Collider component



# First Game Steps - Setting Up the End Game

1. Add a On Component Begin Overlap node
2. Add a Open Level node and/or Destroy Actor
3. Add a timer to allow enough time to show what happened

