

Starter Assets

Documentation v1.0

Starter Assets include First and Third Person Character controllers built in a modular way as a solid foundation for any game genre.

- [Starter Assets - First Person Character Controller](#)
- [Starter Assets - Third Person Character Controller](#)

The Starter Assets packages are compatible with **Unity 2020.3 LTS**.

The Starter Assets require the Input System and Cinemachine packages to work.

The ThirdPerson PlayerArmature uses a **Humanoid character rig**.

The Character uses the built-in **CharacterController** component.



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Important note on package dependencies

The First/Third Person Starter Assets packages require the **Input System** and **Cinemachine** packages to work.

The packages will automatically install when you import a Starter Assets package into your project. This is handled by the PackageChecker.cs script.

Please accept the Input System pop-up and Editor restart to successfully install the New Input System. If you accidentally decline, you can install the New Input System through the Package Manager.

Switching input systems

If you want to use the Input System and Input Manager (Old) together, or switch your project back to the old Input Manager, you will need to go to **Edit > Project Settings**, then select **Player**.

Under **Other settings**, you will see that **Input System Package (New)** is selected. Here you can switch to your preferred setup. Please bear in mind that the Starter Assets do not work with the Input Manager (Old) setting.

Playground Scene

In **Assets/StarterAssets/ThirdPersonController/Scenes** or **Assets/StarterAssets/FirstPersonController/Scenes**, you will find the **Playground** scene. Here you can use the Starter Assets controller in a simple playground environment.

Set up the Starter Assets in a new Scene

If you want to add the character controller to a new Scene, you need to complete a simple setup.

There are several ways to do this:

Drag and drop (Nested Prefab)

- Go to **Assets/StarterAssets/ThirdPersonController/Prefabs** or **Assets/StarterAssets/FirstPersonController/Prefabs**.
Locate the Nested Prefab you want, for example **NestedParentArmature_Unpack**. This

is a Nested Prefab that contains everything you need to set up a PlayerArmature in a new Scene.

- Drag the NestedParent Prefab into your Hierarchy, right-click, and select Unpack.
- Drag the contents of the nested parent out into the Scene, and you are ready to go.

Automated setup

- Go to **Tools > Starter Assets** and select the type of controller you want to set up, for example **Reset Third Person Controller Armature**. This will set up a new PlayerArmature in your Scene with everything hooked up.
- You can also use this tool to reset elements of your current Player back to default.

Manual setup

- Drag the **PlayerCapsule** or **PlayerArmature** into the new Scene.
- Drag the **PlayerFollowCamera** into the Scene.
- Under **Follow** in the CinemachineVirtualCamera in the Inspector, select the **PlayerCameraRoot** object.
- Replace your Main Camera with the MainCamera prefab in the Prefabs folder, or assign a **CinemachineBrain** to the existing Main Camera.
- Press Play and you're good to go!

Mobile setup

The Starter Assets packages come with a UI overlay and Input setup for mobile devices.

In the Playground Scene, the Hierarchy already contains

UI_Canvas_StarterAssetsInputs_Joysticks with all the right connections. Enable it and you're good to go!

Change Input style

If you prefer touch zone inputs over joysticks, go to

Assets/StarterAssets/Mobile/Prefabs/CanvasInputs and add

UI_Canvas_StarterAssetsInputs_TouchZones to the Hierarchy instead. Delete the other UI Canvas.

In the **UI Canvas Controller** Component, make sure to assign the Player Prefab to **Starter Assets Inputs** under **Output** in the Inspector.

Set up mobile UI in a new Scene

To set up mobile Inputs in a new Scene, first set up your preferred Player Prefab as instructed in the "Set up the Starter Assets in a new Scene" section above.

Now, go to **Assets/StarterAssets/Mobile/Prefabs/EventSystem** and find the **UI_EventSystem** Prefab. Drag it into the Hierarchy.

Select your Player Prefab in the Hierarchy. Under the **Player Input** Component, go to **UI Input Module**. Here, select the **UI_EventSystem** Prefab.

Next, you need to add the specific UI you want to use.

Go to **Assets/StarterAssets/Mobile/Prefabs/CanvasInputs**. Add **UI_Canvas_StarterAssetsInputs_TouchZones** or **UI_Canvas_StarterAssetsInputs_Joysticks** to the Hierarchy depending on your preferred control method.

Select the UI Canvas. In the Inspector in the **UI Canvas Controller** Component, make sure to assign the Player Prefab to **Starter Assets Inputs** under **Output**.

Now you're all set up to build on a mobile device with your preferred input method.

Building to a mobile device

If you are unfamiliar with building on a mobile device, please take a look at the documentation below.

[Building for Android](#)

[Building for iOS](#)

Make sure to add Android/iOS Build Support to your Editor version in order to be able to change your build target.

For more information on how to add modules to the Editor and adjust your Build Settings to build on Android or iOS, please see the following documentation:

- [Adding modules to the Unity Editor](#)
- [Build Settings](#) (change Build target)

URP/HDRP compatibility

By default, the Starter Assets materials are using the Built-in Render Pipeline. If you want to use the package in URP or HDRP, you will need to upgrade the materials.

Please follow the instructions in the official documentation below:

- [Upgrade shaders to URP](#)
- [Upgrade shaders to HDRP](#)

In **Assets/StarterAssets/Environment/Art/Materials/URP_HDRP_ShaderGraph**, you can find a customizable Triplanar Material for URP/HDRP projects.

Lighting setup (HDRP)

If you upgrade the project to HDRP, you will need to enable the lighting in the Playground Scene.

In the Hierarchy, select the **Directional Light** under the **Lighting** parent and the lighting should show correctly. Make sure the Intensity is set to 100000lux if you are aiming for realistic lighting.

Finally, go to **Window > Rendering > Lighting**, and press the **Generate Lighting** button.

Technical documentation

For more details about how the different Scripts work, please refer to the comments within the Scripts themselves.