

Loop Kit V0.2

Library of Unity scripts for real-time animation.

Installation

1. Open any version of Unity (package tested on 2019.4.1 LTS).
2. Go to Assets > Import Package > Custom Package... and select the Loop Kit .unitypackage file.
3. When the “Import Unity Package” dialog appears, click “All” in the bottom left to ensure that everything is installed correctly. After you click “Import,” you should see a “Loop Kit” folder in your Assets folder.

Sample Scene

[Watch a 2-minute breakdown of the Underwater Sample Scene here.](#)

1. Open the “Sample” scene from Assets > Loop Kit > Scenes. You should see a submarine with a few fish in the background.
2. For the best preview, go to your Game window and add an item to your aspect ratio list. Make sure the Type is set to “Fixed Resolution” and the Width & Height is set to 1000 x 1000 to get the best preview.
3. Hit play to see the loop in action! Press the spacebar in play mode to see a periscope peek out of the submarine. If you don’t see anything moving, make sure you have your Game window selected. The periscope’s movement is driven by the “Manual Pulse” script. We’ll cover that along with other scripts in the “Scripts” section.

Export Loops

1. You can export your loops using the Unity Recorder. You can install it from Window > Package Manager. Make sure you click Advanced > Show preview packages.
2. To export loops, pull up the Unity Recorder from Window > General > Recorder > Recorder Window.
3. Inside the Recorder window, “Add New Recorder” to record an Animation Clip, Movie, Image Sequence, or GIF Animation. For this example, we’ll export the Sample scene as a GIF.
4. To make sure you get a perfect loop, set “Record Mode” at the top of the window to “Time Interval (sec).” Set the Start and End times to 0 and 1 to export 1 second.

In the Frame Rate section in the top right, make sure Playback is set to “Constant” and Target is set to “60.”

5. Set your File Name and Path to make sure that your GIF is named correctly and exported to the correct location. Unity Recorder **will not** warn you if it’s about to overwrite a file, so make sure your File Name and / or Path values are different for different exports.
 6. Make sure you have your scene open and the Source is set to the Camera you want to export from (“ActiveCamera” for the CameraSample scene). Click “Start Recording” to export your GIF!
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Scripts (A to Z)

CamController.cs

- Function: This script locks the camera's focus to a point in your scene as it rotates.
- Use: Attach this script to the Main Camera in your scene.
- Example: Click on the Main Camera in the “Sample” scene to see this script’s parameters. The camera’s rotation is driven by the Rotator object and the focus point is the origin (0,0,0). Hit play on the “Sample” scene to see it in action.

DestroyInTime.cs

- Function: This script destroys the object it's attached to after a predetermined amount of time.
- Use: Attach this script to any object that you want to destroy in your scene.
- Example: Find the “BackwardFish” prefab from Assets > Loop Kit > Resources. This script is attached to the parent object and destroys the prefab three seconds after it spawns into the scene. Hit play on the “Sample” scene to see it in action.

Emitter.cs

- Function: This script emits a prefab at a fixed rate.
- Use: Attach this script to any object in your scene.
- Example: Click on the Fish Emitter object in the “Sample” scene to see this script’s parameters. It spawns the “BackwardFish” prefab into the scene every two seconds. Hit play on the “Sample” scene to see it in action.

LookAt.cs

- Function: This locks any object's focus to a point in your scene.
- Use: Attach this script to any object in your scene.
- Example: Click on the WaterBG object in the “Sample” scene to see this script's parameters. Attaching this script forces this object to focus on the Main Camera. Hit play on the “Sample” scene to see it in action.

ManualPulse.cs

- Function: This moves / rotates / scales an object back and forth (pulse) when a user-defined key is pressed.
- Use: Attach this script to any object you want to pulse.
- Example: Find the Periscope object in the “Sample” scene to see this script's parameters. Here, pressing the spacebar will make the periscope pulse between the starting value and ending value. You can change the transition speed, hang time, and the key that activates the pulse. Hit play on the “Sample” scene to see it in action.

PingPong.cs

- Function: This ping-pongs an object between two position or rotation values.
- Use: Attach this script to the object you want to move back and forth.
- Example: Find the Background Fish object in the “Sample” scene to see six objects with this script attached. Each of the background fish ping-pong between two values on the x-axis over some period of time. Hit play on the “Sample” scene to see it in action.

RotateAround.cs

- Function: This rotates an object around a predefined point in space.
- Use: Attach this script to an object you want to rotate.
- Example: Click on the Rotator object in the “Sample” scene. Here, the object rotates around the origin and completes one rotation per second. Hit play on the “Sample” scene to see it in action.

SteadyTransform.cs

- Function: This moves / rotates / scales an object on any axis at a constant predefined speed.
- Use: Attach this script to an object you want to move / rotate / scale.
- Example: Find the Propeller object in the “Sample” scene to see this script’s parameters. Here, the object rotates around the x-axis and completes five rotations per second. Hit play on the “Sample” scene to see it in action.