ROPE BUNDLE 2D

Documentation
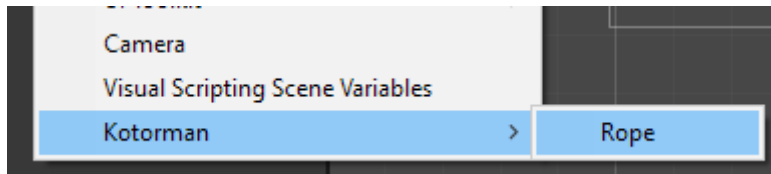
Kotorman

Entertainment
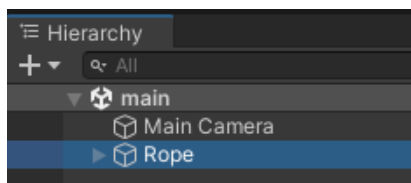
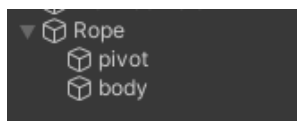# Overview

Adding a Rope to a scene

To add a rope into your scene right click in Hierarchy:

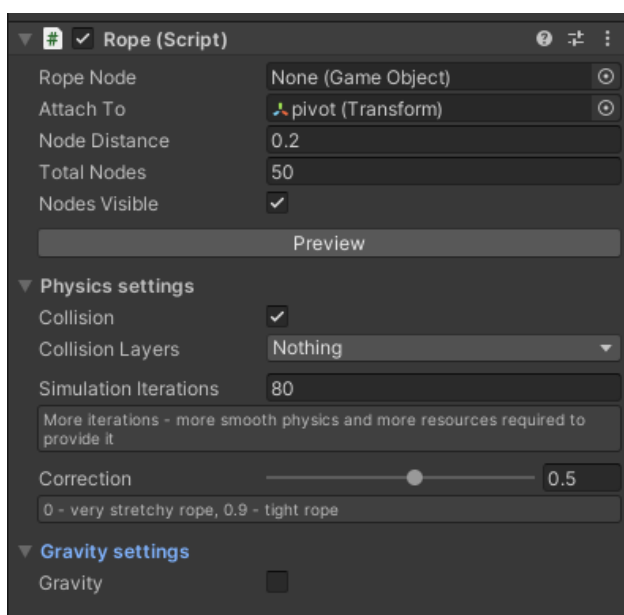It will create a new GameObject:

Open it to see it's parts. *"Pivot"* is a point which holds the first rope node, *"Body"* contains all nodes and properties of rope.

Click on "Body" to see the script. Assign the *"Rope Node"* field from "Rope Bundle/Assets/Prefabs/RopeNode". *You can create your own nodes by adding RopeNode.cs script to GameObject.* Setup LineRenderer and **Rope is ready!**
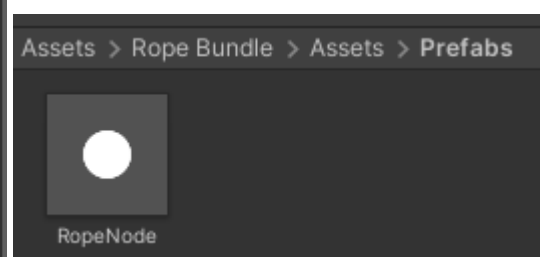
Properties

Property	Definition
Rope Node	The node gameobject that will combine into a chain. A bone from Rope skeleton. Assign it after creating a rope.
Attach to	A Transform of point that holds the first rope node. Assigned by default.
Node Distance	A distance between rope nodes.
Total Nodes	The initial count of nodes. Cannot be changed after Start(). To add nodes, use *AddNode()* and *RemoveNode()* methods (mentioned in next chapter)
Nodes Visible	Make nodes visible or invisible for user.
Preview Button	Generates a preview rope model in Editor. Use to see the result rope after changing properties, moving a rope etc. Available only in Editor mode.
Physics Settings Section	
Collision	Sets the collision enabled/disabled.
Collision Layers	If Collision enabled, sets the Layer Collisions permissions. You can combine different layers that are defined in your project.
Simulation Iterations	A value of simulation iterations in FixedUpdate(). The bigger value – more smooth and more rope physics calculations done.
Correction	Rope stretching ability. 0 – totally stretchy rope, 0.9 – very tight rope.
Gravity Settings Section	
Gravity	Sets the gravity enabled/disabled.
Gravity Force	If Gravity enabled, sets the Vector2 direction and scale of gravity force.

Functions

Function	Definition
AddNode()	Adds the node to the bottom of rope.
RemoveNode()	Removes the last node.
GetNodeAt(int index)	Returns a node at selected position. Null if node does not exists.
GetFirstNode()	Returns the first node.
GetLastNode()	Returns the last node.
AttachTo(Transform obj)	Connects the first node to selected Transform.
Clear()	Clears all nodes from rope.
SetNodesVisible(bool visible)	Sets rope nodes visible/invisible.