

Rigidbody2D - Scripting

Use AddForce [[script ref](#)] for “pushing” a dynamic Rigidbody2D

Use MovePosition instead of using transform.position

Frequently used properties and functions of Rigidbody2D:

```
rb = GetComponent<Rigidbody2D>();  
  
rb.velocity = Vector2.right; // set the velocity directly, ignore mass  
rb.AddForce(Vector2.right); // push the object, include mass  
rb.isKinematic = true; // "freeze" the object  
rb.MovePosition(new Vector2(0, 0)); // set the world position directly
```

[Unity Script Reference - Rigidbody2D](#)



Unity Documentation

1. Unity Manual

“Tutorials” on how Unity’s systems work

The screenshot shows the Unity Documentation website for the Manual section. The top navigation bar includes the Unity logo, 'Manual', 'Scripting API', and a search bar. The version is set to 2022.3, and the language is English. The left sidebar lists the 'Unity Manual' with a tree view showing categories like 'Unity User Manual 2022.3 (LTS)', 'New in Unity 2022 LTS', 'Packages and feature sets', 'Working in Unity', 'Asset workflow', 'Input', and '2D game development'. Under '2D game development', 'Rigidbody 2D' is selected, leading to the 'Introduction to Rigidbody 2D' page. The main content area shows the breadcrumb 'Unity User Manual 2022.3 (LTS) / 2D game development / Physics 2D Reference / Rigidbody 2D / Introduction to Rigidbody 2D'. The page title is 'Introduction to Rigidbody 2D'. A 'SWITCH TO SCRIPTING' button is visible. The text explains that a Rigidbody 2D component can be attached to a GameObject to control it with the physics system, sharing properties with its 3D counterpart but adapted for 2D development. It notes that objects with this component can only move along the XY plane and rotate on a perpendicular axis.

2. Unity Script Reference

Overview of Scripting API

The screenshot shows the Unity Documentation website for the Scripting API section. The top navigation bar includes the Unity logo, 'Manual', 'Scripting API', and a search bar. The version is set to 2022.3, and the language is English. The left sidebar lists the 'Scripting API' with a tree view showing categories like 'Resource request', 'Resources', 'Resources API', 'Rigidbody', 'RuntimeAnimatorController', 'ScalableBufferManager', 'Screen', 'ScreenCapture', 'ScriptableObject', 'SecondarySpriteTexture', 'Security', 'Shader', 'ShaderVariantCollection', 'SkeletonBone', 'SkinnedMeshRenderer', 'Skybox', 'SleepTimeout', 'SliderJoint2D', 'Snapping', and 'Social'. Under 'Rigidbody', 'Rigidbody2D' is selected. The main content area shows the breadcrumb 'Scripting API / Rigidbody2D'. The page title is 'Rigidbody2D'. The text indicates it is a class in UnityEngine that inherits from Component and is implemented in UnityEngine.Physics2DModule. A 'SWITCH TO MANUAL' button is visible. The 'Description' section states that the Rigidbody2D class provides the same functionality in 2D as the Rigidbody class in 3D, putting the sprite under the control of the physics engine. It notes that the sprite will be affected by gravity and can be controlled from scripts using forces. The 'Properties' section lists 'angularDrag' as the 'Coefficient of angular drag'.

