



COOL JOYSTICK

Powerful joystick under your finger

DOCUMENTATION

Overview

The **Cool Joystick** is a simple to use, easy to implement way of adding powerful virtual joysticks to your games. It is designed for use with mobile devices but also works with a mouse for easy testing and debugging in the editor.

The **Cool Joystick** has a lot of options :

- 3 different axis mode (**AllAxis**, **Horizontal** and **Vertical**)
- 3 different movement mode (**Fixed**, **Dynamic** and **Follow**)
- Interpolate options for joystick background and foreground parts
- Clamping drag magnitude and change movement range
- Setup size and color FX by color gradient and curve for joystick background and foreground parts
- Arrows, Shadows, Lights and Outline FX
- Customizing touch zone like you want : touch zone size and position, joystick size and position, joysticks count, anchors

The joystick comes in a pack with **42** prefabs and scenes (**+6** demos as very simple mini games) for demonstrate his power, including bonus (a few simple joysticks and **10** unique joysticks)

ADDING A JOYSTICK

The pack has 42 already setup prefabs and scenes with different variety of joystick presets for showing how different variables work with other different variables (including behaviours of 10 unique joysticks). And 6 demos as very simple mini games.

Prefabs are located in the Cool Joystick->Assets->Prefabs->Examples folder.

Also each prefab has setup scene for him are located in the Cool Joystick->Assets->Scenes>Joystick Examples folder.

Demos are located in the Cool Joystick->Demo>Player Controller Examples folder.

Each preset contains :

- Setup Canvas (default setup for 16:9 and 9:16)
- 2 Joysticks (Left and Right) in Canvas with their own config

NOTE: Canvas and Canvas Scaler it is recommended to use the same settings as in already setup prefabs (default setup for 16:9 and 9:16).

Drag the preset you wish to use into the hierarchy. Preset already has EventSystem inner, if you already has your own, you can delete what in Preset after it putted in Hierarchy.

USING THE JOYSTICKS

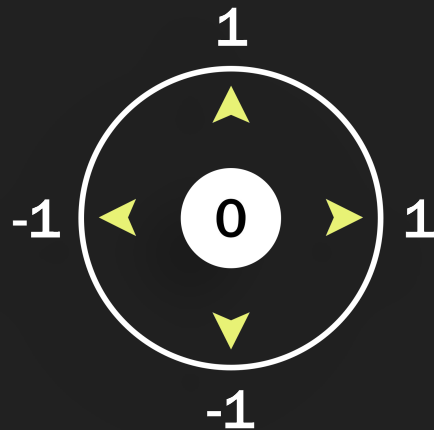
Each joystick has four usable outputs.

`Joystick.Horizontal` and `Joystick.Vertical` are each axis separately, both return a **value** between **-1** and **1**.

`Joystick.Direction` returns a **Vector2** combining the horizontal and vertical axis to give the overall direction the joystick is in.

`Joystick.Delta` returns a **Vector2** combining the horizontal and vertical axis delta values between frames to give the overall direction the joystick is in between frames.

`Joystick.Pressed` returns a **bool** to give the understanding we pressed joystick or not.



JOYSTICK OPTIONS

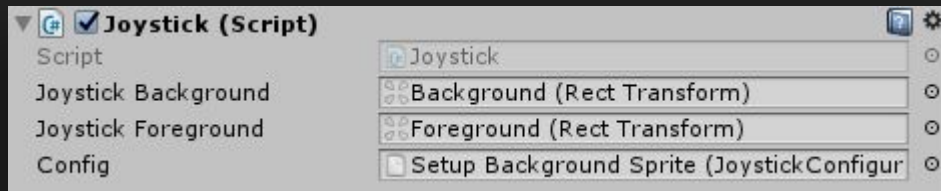
General

For joystick work he need has assign **3** components. In already setup prefabs components already assigned.

Joystick Background - it **RectTransform** of joystick background image.

Joystick Foreground - it **RectTransform** of joystick foreground(handle) image.

Config - it configuration file (**Scriptable Object**) in which contains all options of joystick.



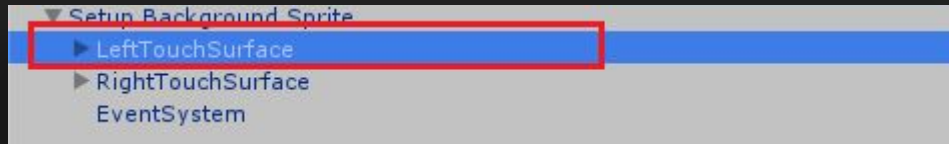
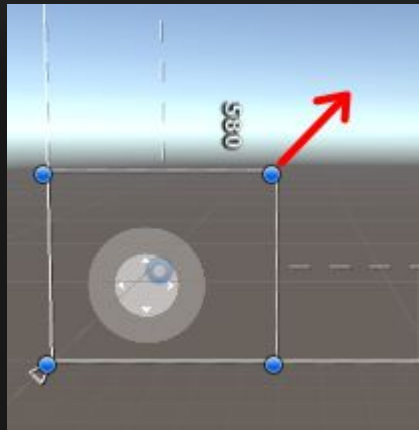
JOYSTICK OPTIONS

General

Dead Zones

For using dead zones you just need change size of touch surface.

The entire area that is not covered by the Touch Surface will be perceived as a dead zone for the joystick.



JOYSTICK OPTIONS

Configuration File

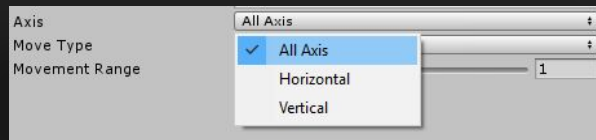
Axis

This option has three settings: All axis, Horizontal and Vertical.

All axis - joystick handle will be not limited in moving by all axis.

Horizontal - joystick handle will be limited in moving by **Vertical** axis.

Vertical - joystick handle will be not limited in moving by **Horizontal** axis.



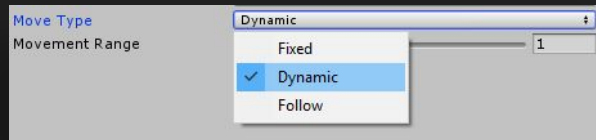
Move Type

This option has also three settings: Fixed, Dynamic and Follow.

Fixed - joystick will be limited in moving.

Dynamic - joystick will be moved to finger position each tap.

Follow - joystick will be moved by finger if handle is trying to go beyond the joystick.



JOYSTICK OPTIONS

Configuration File

Interpolate

This part of options do more smoothed moving of joystick or handle.

Interpolate (Background,Foreground) - enable option if you want has smooth moving.

Interpolate Speed (Background,Foreground) - this option control speed of smooth.

Interpolate Background	<input type="checkbox"/>
Interpolate Background Speed	15
Interpolate Foreground	<input type="checkbox"/>
Interpolate Foreground Speed	15

Clamp Magnitude

This option do clamping of speed moving of handle.

Clamp Movement Magnitude - enable option if you want has clamping of speed.

Clamp Magnitude Range - this option control how much handle moving speed can be.

Clamp Movement Magnitude	<input checked="" type="checkbox"/>
Clamp Magnitude Range	10

Movement Range

This option controls how much handle can move away from center of joystick.

0.5 - handle cannot go beyond the joystick, **1** - center of handle cannot go beyond the joystick edge, **2** - handle can go beyond the joystick.

Movement Range	<input type="range" value="1"/>
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JOYSTICK OPTIONS

Configuration File

Image Customization (Background, Foreground)

This part of options control finger down/up events FX of joystick or handle.

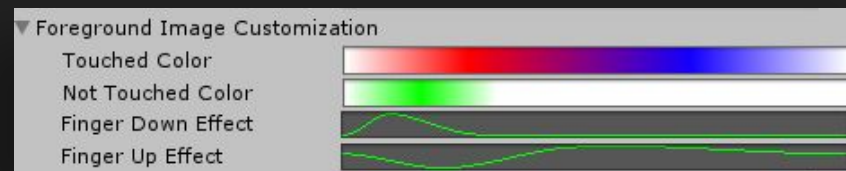
Touched Color - it gradient of color which will be applied to joystick or handle on finger down event.

Not Touched Color - it gradient of color which will be applied to joystick or handle on finger up event.

Finger Down Effect - it curve of changing size which will be applied to joystick or handle on finger down event.

Finger Up Effect - it curve of changing size which will be applied to joystick or handle on finger up event.

Gradients and Curves are performed within a second after the finger down/up event is activated.

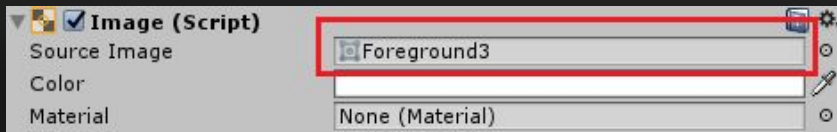
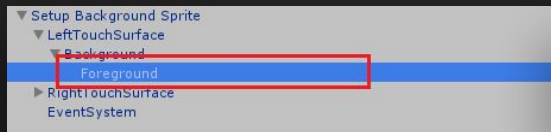


CUSTOMIZATION

The pack comes with a few simple joysticks and 10 unique joysticks , you can use their sprites or your own. They are located in the **Cool Joystick->Sprites** folder.

Foreground

To change the foreground sprite assign a different sprite to the image component on the foreground GameObject this is the same for all joysticks.



Background

To change the background sprite assign a different sprite to the image component on the background GameObject this is the same for all joysticks.

