# **Puppetstrings**

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## What's New

#### Version 1.1.3

Mac Support

#### Version 1.1.2

- Multiple Controller Support
  - o Controller is set with player number of controller
    - 0 lights Controller 0
    - 1 lights Controller 1
    - etc
- Assign new Mappings to Active Object
  - If the object is an armature and in pose mode, the active posebone will be added as well.

#### Version 1.1.1

- · Add Mapping Names
- Add duplicate mapping button
- Add Show/Hide all mappings
- Play/Start Button Starts Anim if stopped. Toggles Record while playing
- Major revamp of value assignment code (more efficient)
- Add "Mute Controller Input" this still allows for play/stop on controller but bypasses control
- Guide Button Toggles "Mute Controller Input"

#### Version 1.1.0

- Add Duplication Button Groups
- Add Star Icon next to button mapping for easier selection

#### **Version 1.0.11**

- Add Importing and Exporting Button Groups
- · Object Selection has a picker

#### **Version 1.0.10**

- Add Input and Output Clipping
- Add Input Scaling and Rounding
- Try to clean up multiple timers causing slowdowns
- Show Connected Controller Name if Available

#### Version 1.0.9

- Add Ability to Change LED color
- Add Ability to Change Player # Display
- Turn Controller LED to red when recording
- Add Touch, Acceleratometer and Gyroscope Inputs
- Add +=, -=, and \*= Assignment for especially with sensor data
- Only Retrieve Needed Data from Controller instead of all data points
- Add input scaling and rounding (rounding can help with gyro and acceleratometer data)

#### Version 1.0.8

• New Mapping curves start as (-1,-1) to (1,1)

#### Version 1.0.7

- Variable Keyframe Rates per mapping. KF Rate in mapping is override for global Keyframe Interval.
  Set to 0 to use global setting
- Code Cleanups
- More Error Checking

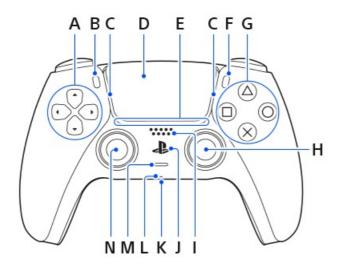
#### Version 1.0.6

- Add Ability to Rumble Controller
- Rumble on Punch-In or Punch-Out
- Rumble on Start Record

#### Version 1.0.5

- Posebone mappings will auto-mute now when recording.
- When recording over previous keyframes with a lower keyframe rate, the non-keyframe frames will have keyframes deleted.

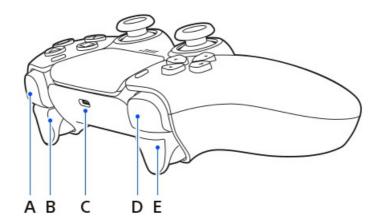
## **PS5 Controller Mapping**



## **PS5 Controller Front**

- A D Pad Up / Down / Left / Right
- B Back Button (Stop Control)
- C Light Bar (Red Recording / Green Playing)
- D Touch Pad
- E Player Indicator
- F Start Button (Play Control)
- G Directional Buttons (North, South, East, West)
- H Right Stick
- I Speaker
- J Guide Button (Toggle Controller Output)
- K Headset Jack

- L Microphone
- M Mute (Misc 1 Button)
- N Left Stick



**PS5** Controller Top

- A Right Shoulder
- B Right Trigger
- C Usb Port
- D Left Shoulder
- E Left Trigger

## Instructions

## Setup

- 1. Plug in Controller.
- 2. In the 3D Viewport N panel, press Enable Controller it should say Controller Running.

### **Controls**

- **Start Button**: If stopped, start the play control. If playing and not recording, punch in. If playing and recording, punch out.
- Back Button:
  - When Playing: stops playback.
  - When Stopped: goes to start frame.
- Guide Button:
  - Toggle "Mute Controller Input"

## Recording

- Arm recording without punch  $\rightarrow$  records at all times.
- Punch recording:
  - o Create markers in the timeline and choose them for punch points (pre-roll optional).
  - When punch is enabled (click the arm circle next to punch in), it always records in the punch

area.

• When no punch points are selected, recording happens at all frames.

#### **Options**

- Prevent Looping Animation: Playback cancels at the final frame instead of looping.
- Auto-Simplify: Toggles render settings "Simplify" panel during recording or playback.
- Controller FPS: How often the controller is polled.
- **Keyframe Interval**: How often to record keyframes.
- Smoothing (ms): Time window for smoothing axis & trigger controls.
- **Debounce Time (ms)**: Delay to prevent jittery button presses.

## **Mappings**

- Mapping Set: Group of key mappings. Needs at least one. If unchecked, the set has no effect.
- Button Mappings: Specific key mappings. If unchecked, the mapping has no effect.
  - o Checkbox: Enable this mapping for processing.
  - Eye: Show or hide mapping details.
  - Button: Axis or Button to map to.
  - o Object: Object to apply mapping.
  - Mapping Type:
    - Location / Rotation / Scale: Axis to map is offered.
    - Shape Key: Lists available shape keys.
    - Modifier / Data Path: Still in development.
  - o Operation:
    - Direct Value: Use value directly from controller.
    - Curve: Map controller value to a curve (extend with curve tools).
    - Inverted Button: 0 = On, 1 = Off.
    - Inverted Axis: Flips -1 to 1  $\rightarrow$  1 to -1.
    - Assignment Expression: Write expression with value (start with =).
      - Example: = value \* 2
    - Easing: Apply easing method at controller level before returning to script.

## **TODO**

- Make a way to set smoothing per button.
- Multi Controller Support