Puppetstrings

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What's New

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 effecient)
- 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, Accelerometer 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
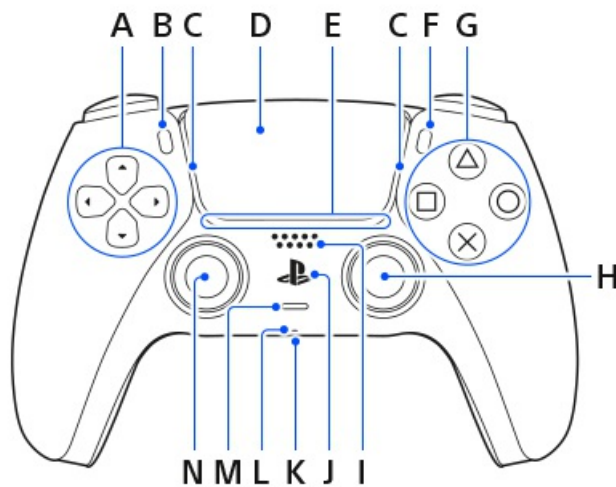- Code Cleanups
- More Error Checking

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
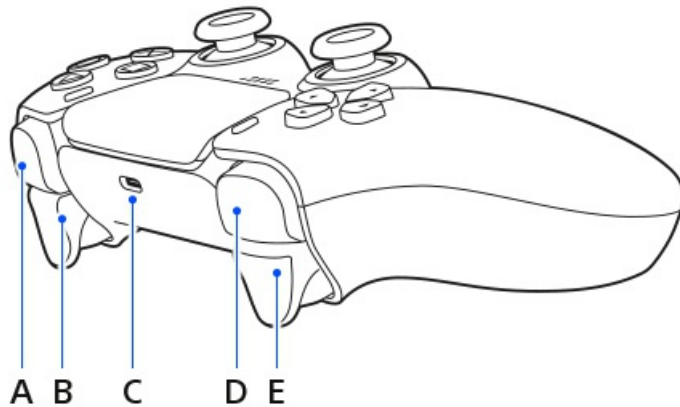
PS5 Controller Top

- 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** → records at all times.

- **Punch recording**:

  - 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.

    - **Checkbox**: Enable this mapping for processing.

    - **Eye**: Show or hide mapping details.

    - **Button**: Axis or Button to map to.

    - **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.

    - **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 → 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