The Post Cajón

User Manual
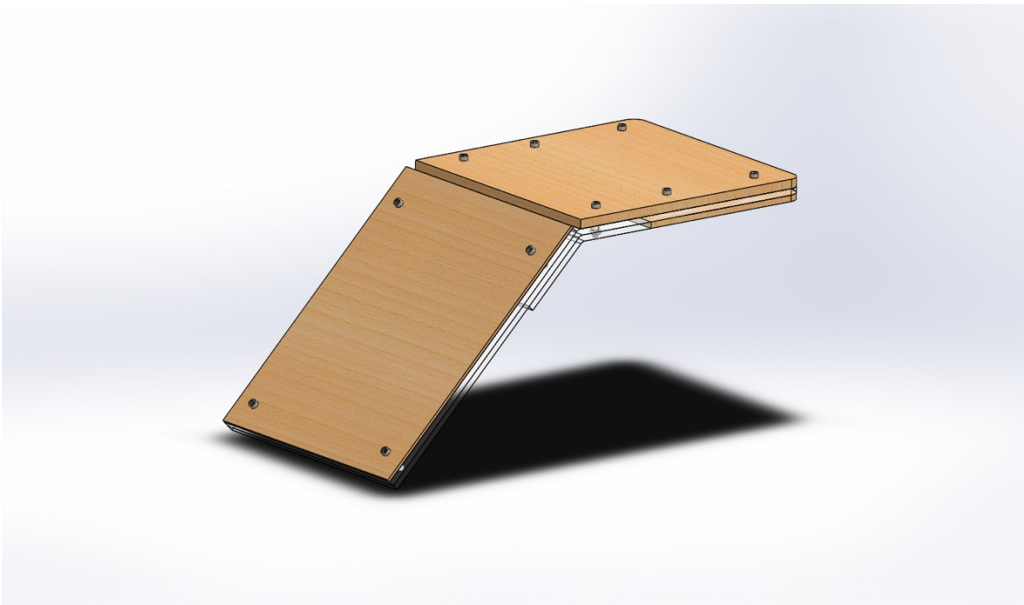
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Congratulations on your new Post Cajón! The Post Cajón is custom built with wood and acrylic for your maximum comfort and durability. Before using the instrument, it is recommended that you read through this user manual. Please keep this manual for future reference.

All images are courtesy of Jeffrey Wang and Hayes Lee.

Safety Notice

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, damage, or other hazards. These precautions include but are not limited to the following:

1. Read and understand all instructions.
2. Always follow the instructions on the instrument.
3. Before cleaning the instrument, always remove the USB cable. When cleaning, use a soft and dry cloth. Do not use gasoline, alcohol, acetone, or any other organic solutions; do not use liquid cleaner or a wet cloth.
4. Ensure the Post Cajón is secured on a flat sitting surface before playing. Playing the instrument on an unstable or bumpy surface may result in collapse.
5. Unplug all cables before moving the instrument.
6. Do not apply excessive force to the controls, connectors, or other parts of the instrument.
7. Do not disassemble the instrument in case of electrical shock. If the system malfunctions, bring the instrument for repairs in store, or contact our help desk.
8. Do not splash any kind of liquid onto the instrument.
9. Keep the instrument away from heat, dust, and vibration.
10. Post Cajon is not responsible for any damage due to improper operation of the instrument.
11. All pictures in this manual are used for demonstration purposes only and may be different from the real instrument.

Contact

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For more information go to www.postcajon.ca

Contents

Included:
1 x Post Cajon
1 x USB Cable

Required:
1 x Computer with a MIDI compatible software (Recommended: Ableton Live)

Specifications

The Post Cajón is an electronic cajón with enhanced ergonomics and controls providing a more expressive way to make music. The instrument is played through striking the Playing Surface, similar to that of a cajón. The top of the Playing Surface gives higher notes, and the bottom of the surface gives lower notes. The volume of each hit is determined by the force of the strike.

There is a microcontroller behind the Playing Surface which has a USB cable connected to a computer. There are button controls at the back as well that allow for recording, channel changing, and sound effects, as shown below. See the 'MIDI Integration' section for additional information on button controls and functions.
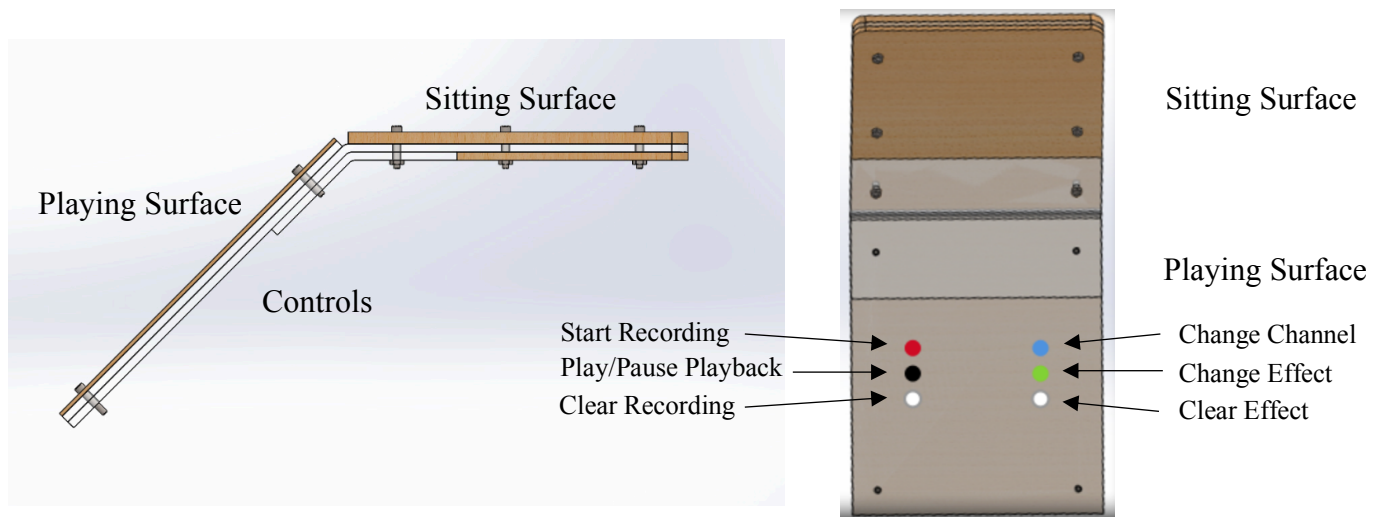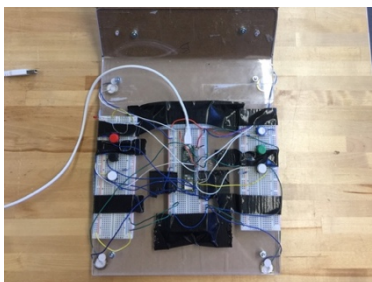

The dimensions of the instrument are shown below (inches):
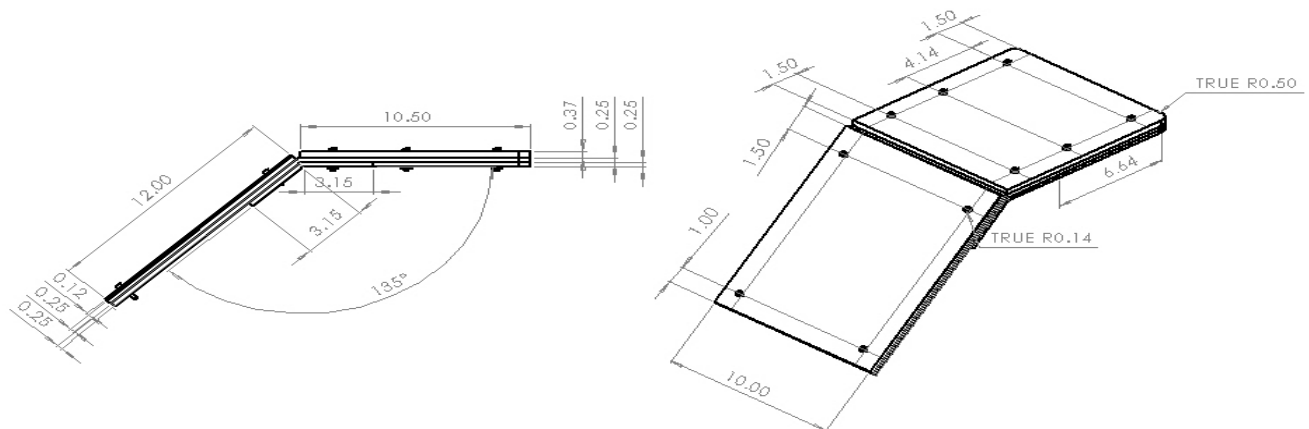
Playing Instructions

Step 1

Plug the provided cable into the microcontroller on the bottom of the Playing Surface.

Step 2

Place the Sitting Surface onto a stable, flat sitting surface (ie. chair), and sit on the instrument.

Step 3

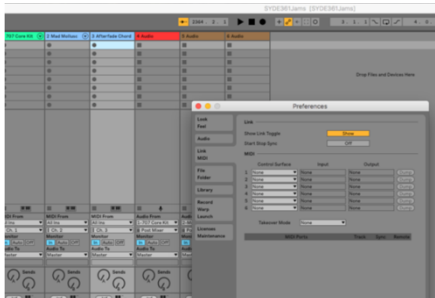Plug the other end of USB cable into a computer with a MIDI compatible software.

Step 4

Download and open the sample Ableton project with preloaded cajón sounds and MIDI mappings; this requires Ableton Live.
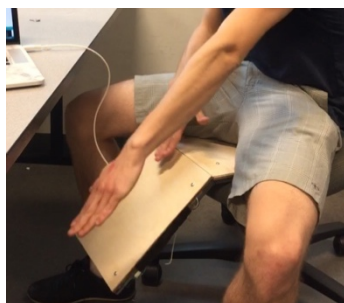
Step 5

Go to Live > Preferences, and click *Link MIDI* in the left menu. Toggle *Input* and *Output* to ON for the connected instrument.

Step 6

Tap on the playing surface with your hands and make some music!

MIDI Integration

MIDI stands for Musical Instrument Digital Interface, a worldwide standard that makes it possible for electronic musical instruments and other devices, such as computers, to 'communicate'. The Post Cajón is equipped with a microcontroller at the back of the Playing Surface, as specified above. When the Playing Surface is hit, it sends a MIDI message to a computer with the note played, determined by the location and force of the strike. These notes can be mapped to your desired drum kit sound and are implemented using the Note On and Note Off MIDI commands for note values of 38 and 45. The Post Cajón also supports recording, channels, and sound effects through the following button mapping.
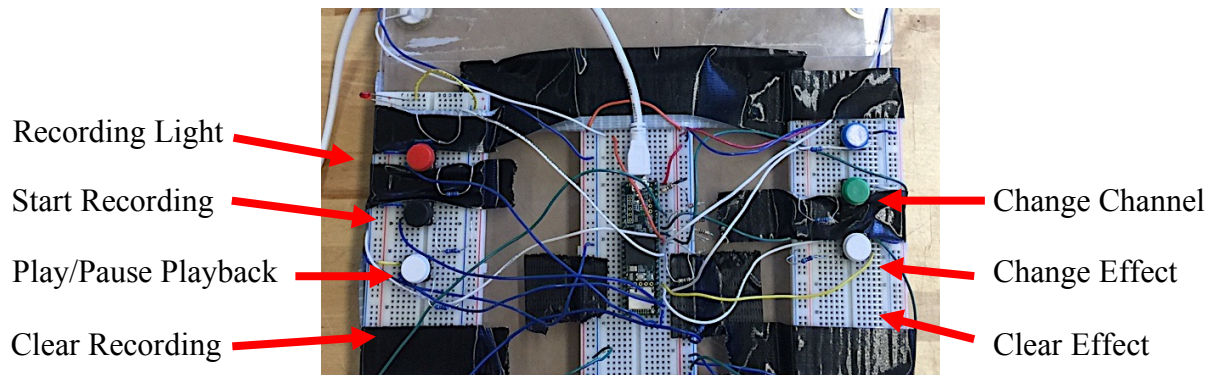

Recording
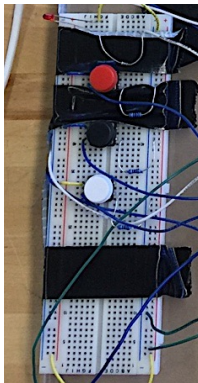
The recording functionality is controlled by three buttons on the left side of the controls. These three buttons are Start Recording (red), Play/Pause Playback (black), and Clear Recording (white), in order from top to bottom. The red recording light at the top of this panel turns on when recording. This feature is implemented in the sample Ableton project using MIDI notes mapped to record functions in the software. You can click the Start Recording button on a specific channel to send a MIDI message that begins recording in the sample Ableton project provided. The recording finishes after four bars, and will start to play. This recording can then be paused and played using the Play/Pause Playback button. The Clear Recording button can be pressed at any time to clear the recording.

Channels

Channel changes are facilitated by the Change Channel button (blue) at the top right of the controls, which allows you to cycle through three channels on a sound synthesis software (ie. Ableton Live). The default channel is 1, and 3 channels are cycled through when the Change Channel button is clicked. Each channel sends channel specific MIDI messages.

Sound Effects
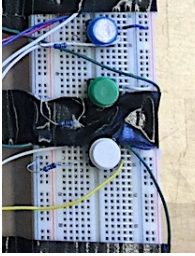
Sound effects are controlled through the Change Effect (green) and Clear Effect (white) buttons on the right side of the controls. The default setting is no sound effect, but when the Change Effect button is pressed, five different sound effects are cycled through. These are implemented as control changes, where the next effect is turned on and the current one is turned off at each button click. The Clear Effect button can be pressed at any time to return the default setting of no sound effects.

Custom MIDI Mapping

The following table summarizes the MIDI messages and values sent for each functionality.

Function	MIDI Message Type	MIDI Value	Control Change Value
Play Note	Note On/Off	38 or 45 (note dependent)	N/A
Start Recording	Note On/Off	1	N/A
Start Playback	Note On/Off	2	N/A
Stop Playback	Note On/Off	3	N/A
Clear Recording	Note On/Off	4	N/A
Overdub	Note On/Off	5	N/A
Change Effect	Control Change	100 (Turn On), 25 (Turn Off)	2-5 (toggle)
Clear Effect	Control Change	25 (Effect Off)	2-5 (current active effect)

To map custom effects or other controls to these MIDI messages, go to the *MIDI* tab at the top right of Ableton, and modify the window on the left with a list of MIDI mappings. Use the table above as reference.