

especially when the Claw is ON. This can break the mechanism.

Precautions, Warnings and Skincare:

- Read the entire manual before operating the device.
- Electrodes should not be placed over the eyes, in the mouth, or internally.
- Some cases of skin irritation can occur at electrode placement sites after long term usage.
- Some allergic reactions to gel or electrodes may occur. These reactions can include skin irritation or burning after removal of electrodes.
- Turn off the device before disconnecting the cable or removing electrodes.

To avoid/reduce skin irritation, wash the area of skin where the electrodes will be placed before and after application of electrodes. Make sure to thoroughly dry the skin before application. When removing the electrodes, pull the electrodes toward the direction of hair growth and not against. Never apply the electrodes over areas of broken or irritated skin. Electrodes are intended for single user usage only. Discard electrodes when they no longer adhere to the skin.

Specifications:

Battery powered (9V battery)

Bio amplifier characteristics:

- Single channel
- Sampling rate 15 SPS
- Frequency ranges from 340Hz to 2400Hz

Input Jack 3.5mm

Intensity indicator

Idle indicator

Reverse movement button

Maintenance and Storage

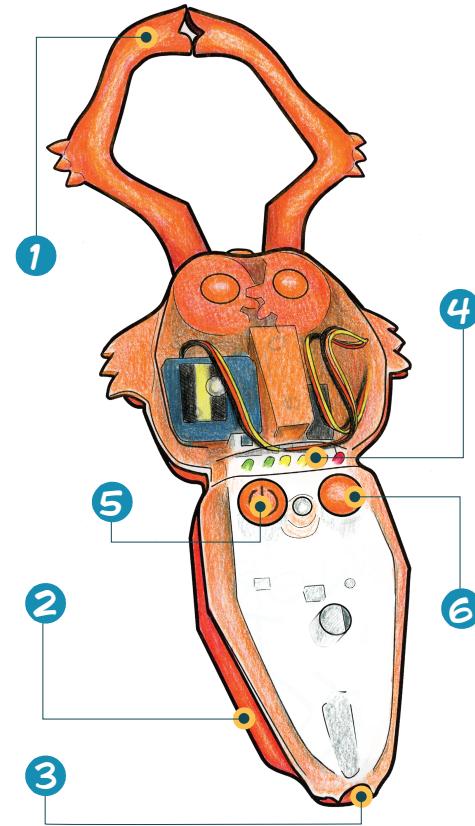
- Do not submerge the device in any liquid, avoid spills near or on the device,
- Avoid dropping the device.
- Remove the battery from the device when storing and/or not in use.
- Ensure that batteries are not damaged to prevent acid leaks.
- Do not store the device in extremely hot or cold environments. This could damage the device.



THE CLAW

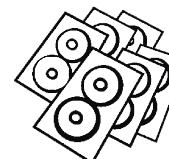
Anatomy of the Claw

- 1 PINCERS
- 2 BATTERY COMPARTMENT
- 3 INPUT JACK
- 4 ACTIVITY LEVEL LIGHTS
- 5 POWER BUTTON
- 6 STARTING POSITION BUTTON

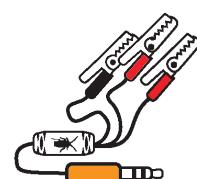


What's Inside?

- 1 MUSCLE ELECTRODE PADS
- 2 MUSCLE ELECTRODE CABLE
- 3 9V BATTERY
- 4 CUPS



STICK TO THE MUSCLES



USE THIS TO CONNECT YOUR HAND TO THE CLAW



ALKALINE BATTERY TO POWER THE CLAW

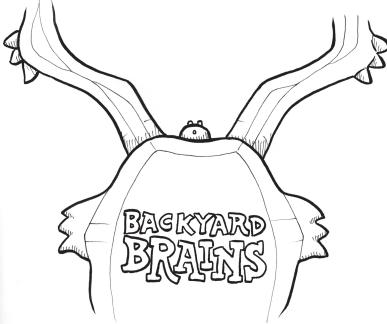


USE THESE CUPS FOR THE GAME

The Claw User Manual

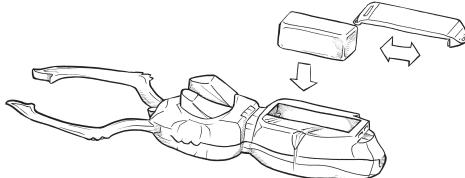
Jealous of the cyborgs you see in the movies? Wish your brain could send signals to robotic devices? Your days of wishing are over. Now you can control a Backyard Brains Claw with your own Brain! Experience the future of robotics with Backyard Brains' "The Claw"

The Claw is a motorized gripper that makes it possible for YOU to be the innovator of human-machine interfaces!



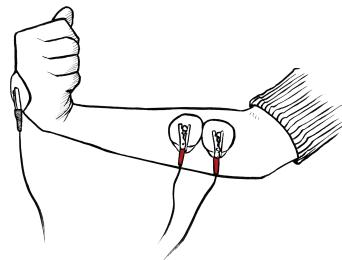
A brain-machine interface (BMI) is a system that allows the nervous system to directly communicate with a device using neural activity. These interfaces amplify electrical activity coming from neurons (for example, the neurons in a muscle), process it, and send an appropriate command to an external device. In addition to their array of exciting functions in robotics and machinery, BMIs can be very useful for people who have sensory or motor impairments.

Battery installation

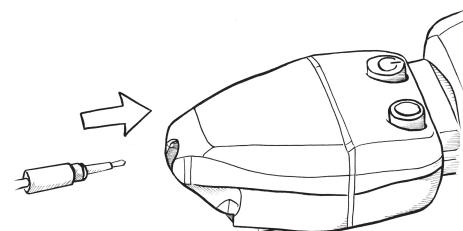


Locate the battery compartment door underneath. Slide the door downwards to open, locate the positive and negative indicator of the battery polarity and place the battery into the compartment accordingly. Don't put the battery in with the plastic wrap still on, as it may get stuck in the compartment.

Electrode placement

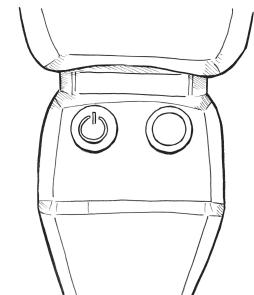


Place two muscle electrode pads on your forearm muscle and one on the back of your hand, as shown in the picture. You can also choose a different location to place the electrodes, such as the bicep or the top of the forearm, but make sure to always have a single electrode on the back of your hand to ground the signal. Connect yourself to the orange cable by clipping the two red clips onto the forearm electrode pads, and the black clip onto the pad on the back of your hand. Then, simply plug the end of the orange cable into the input jack at the end of the Claw's base (opposite of the pincers).



The Claw's buttons

Using the hand without electrodes, hold the claw with the clear side facing up. There are two buttons on the Claw: one controls power and the other sets the starting position of the pincers into either an open or closed position. To power the Claw on and off, press the left button with the power symbol once.



The LED bar above the buttons should flash, and the pincers will move to their starting position. A single green LED will flash every few seconds, indicating that the Claw is powered up. To toggle between an open and closed starting position, simply press the right button once. The pincers should move to their new positions right away.

Operating the Claw

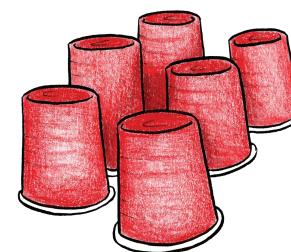
After you're hooked up to the Claw via the orange cable, turn the Claw ON. Flex your forearm muscles and watch the Claw spring to action! As soon as your muscles are flexed, the Claw's LED lights should light up green, yellow, and red while you flex. At the same time, the pincers will move, opening or closing, depending on original position.

The game

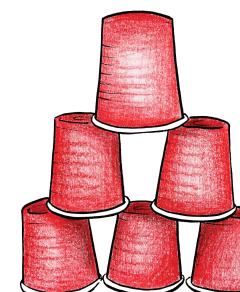
Claw Cup Stacking is a challenging game, you can play with friends or try to beat your own time!

How to play

Arrange the 6 cups upside down somewhere on the side of your playing area.



Use the Claw to grab the cups and make a standard 3-2-1 pyramid in the middle of it.



Then, use the Claw to dismantle the pyramid, and the cups on top of each other.



If you are racing against a friend, whoever finishes everything first is the winner. You can also set a time limit and see who is able to finish the game in time. What are some other games you can come up with?

The Rules

- You cannot use the start position button to pick up the cups.
- If a cup stacks on top of another, use your hands to separate them. Then place them back on the side.
- If the cups fall, you can only use the Claw to pick them up.
- If a cup ends up in a place where the Claw cannot reach it, you lose the game.

Troubleshooting and Device Care

- If the Claw starts to move slowly, twitch, weaken, or if the LED bar does not light up, replace the battery with one that is fully charged.
- If the Claw pincers are moving by themselves or twitching, check the electrodes and cable. They should be stuck properly to the skin and be in the correct position. Also, ensure you are away from strong sources of electromagnetic interference (microwaves, radios, high power devices, etc.).
- If the pincers are not moving, try to press the position change button. If they still don't move, restart the device and check the orange cable. Ensure the clips are in the proper orientation.
- If the pincers don't move but you can hear the motor working and the LEDs come on, contact backyardbrains.com
- Remove the battery from the compartment while the Claw is not in use to avoid draining or leakages, and to prevent the device from accidentally turning on.
- Don't move the pincers with your hands,