This document is intended to be a summary of a device to make it easier to add to the website.

# Product Information

## Product Name

Aspen Sliding Joystick

## Device Category

Mark any relevant categories with an “X”:

|  |  |
| --- | --- |
|  | Adapted Toys |
|  | Aids for Daily Living (ADL) |
|  | Assistive Switches |
|  | Communication Aids (AAC) |
| X | Computer Access |
|  | Environmental Controls |
| X | Gaming |
|  | Keyguard |
|  | Kits |
|  | LipSyncs |
|  | Mounting |
| X | Recreation and Leisure |
|  | Seating and Positioning |
|  | Switch Interfaces |
|  | Writing Aids |

## User Value Statement

If you're looking for a small, analog joystick with a very small range of motion we'd like to point you to the Aspen Sliding Joystick.

## Designer

Makers Making Change

# Device Info

## Overview

The Aspen Sliding Joystick is a small analog joystick that moves in a sliding motion instead of the typical pivoting motion of a joystick or thumbstick. It can be used for adapted gaming or computer access with a suitable adaptive controller or hub. This joystick can be used directly with the [Xbox Adaptive Controller](https://www.xbox.com/en-CA/accessories/controllers/xbox-adaptive-controller) or PlayStation Access Controller, or can be combined with the [Forest Joystick Mouse Hub](https://github.com/makersmakingchange/Forest-Joystick-Mouse-Hub) and some assistive switches to create a USB HID Mouse or USB HID Gamepad.

The PSP-style game controller sliding thumbstick joystick has a range of motion of ±2 mm and requires approximately 115 grams-force to fully deflect. A range of toppers and mounting adapters are available for this joystick. The Aspen Sliding Joystick has the same joystick mechanism as the Birch Sliding USB Joystick, but is the analog version.

## Disability Type

Select one or more disability types and mark with an “X”:

|  |  |
| --- | --- |
| X | Agility / Dexterity |
|  | Arthritis |
|  | Cognitive |
|  | Hearing |
|  | Mobility |
|  | Mobility |
|  | Pain |
| X | SCI |
|  | Vision |
|  | Other |

## Disability Type Description

This device is designed for users with a very small range of motion that need an external joystick for adaptive gaming or computer access.

## How To Use

To use the Aspen Sliding USB Joystick, first position the joystick for the user, mounting if needed. Then, plug in the 3.5 mm cable to the host device, such as the Forest Hub, Xbox Adaptive Controller, or PlayStation Access Controller.

For full instructions, please refer to the [User Guide](https://github.com/makersmakingchange/Aspen-Sliding-Joystick/blob/main/Documentation/Aspen_Joystick_User_Guide.pdf).

## Estimated Cost

The estimated material cost of the device for a single build:

|  |  |
| --- | --- |
|  | $0 - $10 |
| X | $11 - $25 |
|  | $26 - $50 |
|  | $51 - $100 |
|  | $101 - $250 |
|  | $250+ |

## Attribution

Designed by Neil Squire Society / Makers Making Change

Contributors

* Josie Versloot, Neil Squire. Design and documentation.

The documentation template was created by Makers Making Change / Neil Squire and is used under a CC BY-SA 4.0 license. It is available at the following link: <https://github.com/makersmakingchange/OpenAT-Template>

# Maker Info

## Project Skills

Mark the required project skills with an “X”:

|  |  |
| --- | --- |
| X | 3D Printing |
|  | Custom PCB |
|  | Electronics |
|  | Laser Cutting |
|  | Mechanics |
|  | Software |
| X | Soldering |
|  | Woodworking |
|  | Other |

## Skills Description

This is an intermediate build requiring 3D printing, and soldering electronic components.

## Tools Needed

|  |  |
| --- | --- |
| X | 3D Printer |
| X | Common Hand Tools |
|  | Common Power Tools |
|  | Laser Cutter |
| X | Soldering Iron |
|  | Specialized Tooling |

## Print time (hrs)

1.5

## Assembly time (hrs)

1.0

## Build Instructions

This build consists of 4 off the shelf components and a 3D printed enclosure. The commercial parts are soldered together and then assembled into the 3D printed enclosure using snap fits.

Detailed step-by-step instructions are available in the [Maker Guide](https://github.com/makersmakingchange/Aspen-Sliding-Joystick/blob/main/Documentation/Aspen_Joystick_Maker_Guide.pdf).

## Download Link

<https://github.com/makersmakingchange/Aspen-Sliding-Joystick/archive/refs/heads/main.zip>

## Project Link

<https://github.com/makersmakingchange/Aspen-Sliding-Joystick>

# License

## License

This repository describes Open Hardware:

* Everything needed or used to design, make, test, or prepare the Aspen Sliding Joystick is licensed under the [CERN 2.0 Weakly Reciprocal license (CERN-OHL-W v2) or later](https://cern.ch/cern-ohl) .
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