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

# Product Information

## Product Name

Forest Joystick Mouse Hub

## Device Category

Adapted Toys

Aids for Daily Living (ADL)

Assistive Switches

Communication Aids (AAC)

Computer Access

Environmental Controls

Gaming

Keyguard

Kits

LipSyncs

Mounting

Recreation and Leisure

Seating and Positioning

Switch Interfaces

Writing Aids

## User Value Statement

Looking for an alternate way to control a mouse cursor

## Designer

Makers Making Change

# Device Info

## Overview

The OpenAT Forest Joystick Mouse Hub ("Forest Hub") enables a user to connect an analog joystick and one or more assistive switches to emulate a USB Mouse or USB Gamepad.

## Disability Type

Select one or more disability types:

Agility / Dexterity

Arthritis

Cognitive

Hearing

Mobility

Mobility

Other

Pain

SCI

Vision

## Disability Type Description

This is a key part of an access solution for those who have difficulty using traditional input devices like a computer mouse or gaming controller and may be especially useful for those with limited finger or hand dexterity.

## How To Use

First, the analog joystick and assistive switches are connected to the jacks located at the rear of the Hub. Next, the Hub is connected using the USB-C cable to a host device that supports USB Mouse or USB Gamepad.

In Mouse mode, moving the joystick will move the cursor in the corresponding direction. Activating the assistive switches will press the left mouse button, middle mouse button, right mouse button.

In Gamepad mode, the analog joystick maps to the gamepad joystick and the assistive switches map to the gamepad buttons.

The Hub has three different setting slots which can by cycled through by a short press on the Mode button or the Mode Switch jack. A long press on the Mode button or Switch attached to the Mode Switch Jack will toggle between Mouse mode and Gamepad mode..

## Estimated Cost

The estimated material cost of the device:

 $0 - $10

 $11 - $25

 $26 - $50

 $51 - $100

 $101 - $250

 $250+

## Attribution

* The [Adafruit QT Py](http://www.adafruit.com/products/4600) development board was designed by Limor Fried/Ladyada from Adafruit. The PCB design is [available open source](https://github.com/adafruit/Adafruit-QT-Py-PCB) under a CC-BY-SA license.
* The concept for the Forest Hub was based on the [Enabled Controller Mini](https://github.com/milador/Enabled-Controller-Mini) by [Milador](https://github.com/milador" \t "_blank).

# Maker Info

## Project Skills

3D Printing

Custom PCB

Electronics

Laser Cutting

Mechanics

Other

Software

Soldering

Woodworking

## Skills Description

<Maker-centric summary or additional details for the skills required to build the project>

## Tools Needed

3D Printer

Common Hand Tools

Common Power Tools

Laser Cutter

Soldering Iron

Specialized Tooling

## Print time (hrs)

4

## Assembly time (hrs)

1

## Build Instructions

This build consists of a number of off-the-shelf electronic components that are soldered into a custom PCB and assembled into a 3D printed enclosure. Firmware is then flashed to the microcontroller.

Detailed step-by-step instructions are available in the [Maker Guide](https://github.com/makersmakingchange/Forest-Joystick-Mouse-Hub/blob/main/Documentation/Forest_Hub_Maker_Guide.pdf).

## Download Link

<https://github.com/makersmakingchange/Forest-Joystick-Mouse-Hub/archive/refs/heads/main.zip>

## Project Link

<https://github.com/makersmakingchange/Forest-Hub>

# License

## License

CERN OHL-W

Hardware: CERN OHL-W

Software:GPL 3+

Documentation: CC-BY-SA