**Title**

Analog Thumbstick

**Subtitle**

An analog thumbstick that can be used with the Xbox Adaptive Controller (XAC)

## Device Specifications

Build Time:

 < 1hr

1-4 hr

 5-10hr

 >10hr

Cost:

 $0 - $10

 $11 - $25

 $26 - $50

 $51 - $100

 $101 - $250

 $250+

Stage: Recently Added

Skills: Mechanics, 3D Printing

Need: Mobility

Disability: Mobility/Physical

Difficulty: Intermediate

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Usages: Mobility, Computer Access, Recreation and Leisure

Type: Gaming

Designer: 3D printed joystick housing designed by Kerilyn Kennedy - Makers Making Change, inspired by Ron Nelson.

## Device Details

### Overview

This is a cost-effective analog thumbstick intended to be used for adapted gaming with the Xbox Adaptive Controller (XAC). This device is a more affordable option to commercial thumbsticks on the market. This thumbstick is easy to use and gets plugged into the jacks in the back of the XAC. The design is based on a traditional PS2 thumbstick that is mounted into a 3D printed housing. The original plastic joystick topper can be swapped out for a 3D printed "U" shaped topper to make it easier to use.

### Usage

The Analog Thumbstick is connected to the XAC by plugging the TRRS plug into the "X1 " or " X2" jack on the back of the controller. If so equipped, the optional “push button” feature is connected by plugging into the is enabled on the thumbstick, a second jack will be plugged into the "L" or "R" port that look like joystick icons. The joystick can also be used with the "U" shaped topper. This may be beneficial to someone who may not have the dexterity to use a smaller joystick, or someone who may have limited sensation in their fingers but still has enough wrist movement to use a joystick.

## Compatibility

This joystick is compatible with the Xbox Adaptive controller. The XAC can be used with any Xbox Series X|S or Xbox One, any Windows PC game that supports the Xbox Adaptive Controller, as well as other gaming consoles with an appropriate adapter.

### Cost

The thumbstick costs approximately $30 to build. Note, the device can be built for cheaper if more than one is ordered as several of the parts for this device come in larger quantities than needed for one device.

### Build Instructions

A set of build instructions can be found in the assembly guide that is linked above.

#### Skills Required

* 3D Printing
* Mechanics

#### Time Required

3D Printing Time:

Joystick Housing: 2:47

U-shaped Topper: 4:22

Assembly Time: 10 minutes

#### Tools

* Small Flat Headed Screwdriver
* Tape

#### Components

* 1x Joystick
* 16x Dupont Wires
* 2x Headphone Plugs - only one is needed if the "push button" feature of the joystick is not requested.
* 8x #4 1/2" screws

#### 3D Printing

* Joystick Top
* Joystick Base

All components can be printed with no support at 20% infill with a 0.2mm layer height. 3D print files are linked above.

### Attribution

3D printed joystick housing designed by Kerilyn Kennedy - Makers Making Change, inspired by Ron Nelson.

Documentation created by Neil Squire / Makers Making Change.