

Analog Thumbstick

ASSEMBLY GUIDE

Required Components



BOM

Thumbstick without Press Down Function

1. 1x PS2 Joystick
2. 12x Dupont Wires: 4 male/male, 4 male/female, 4 female/female – it is recommended that the same 4 colours are used for the different types of wires as they will be getting connected.
3. 1x Headphone Adapter
4. 8x #4 1/2" screws

Thumbstick with Press Down Function

1. 1x PS2 Joystick
2. 16x Dupont Wires: 6 male/male, 5 male/female, 5 female/female – it is recommended that the same 5 colours are used for the different types of wires as they will be getting connected.
3. 2x Headphone Adapters
4. 8x #4 1/2" screws

Required Tools

- Small flat headed screwdriver
- Tape

Assembly Instructions for the Analog Thumbstick without the Press Down Function – pg 2

Assembly Instructions for the Analog Thumbstick with the Press Down Function – pg 5

Please refer to the Analog Joystick Maker Checklist to ensure you ask the user which version of the joystick they want.

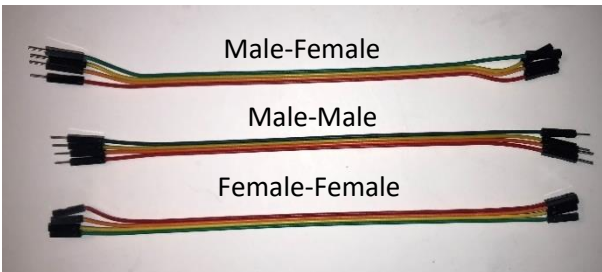
Analog Thumbstick

ASSEMBLY GUIDE

Assembly Instructions for Analog Thumbstick without the Press Down Function

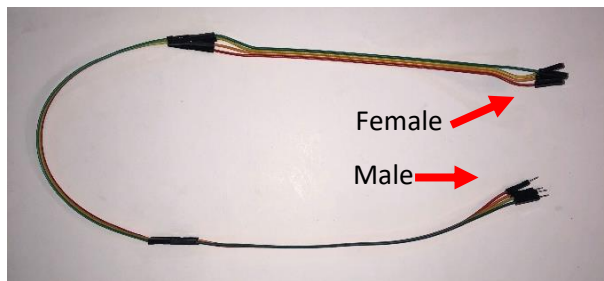
Step 1

Locate 12 dupont wires: 4 male – female, 4 male-male, 4 female-female. It is also recommended that you use the same colours for each of these different types of wires.



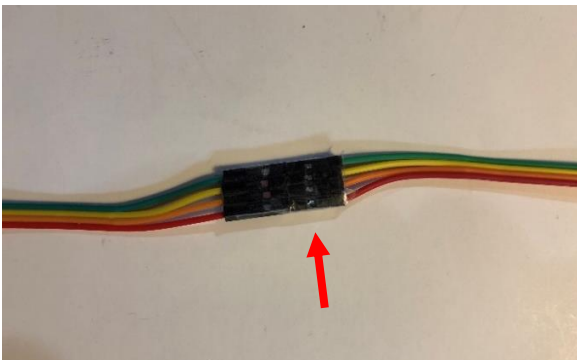
Step 2

Connect the same colour wires so that you now have wires 3 lengths long, with one male end and one female end.



Step 3

Use tape to secure the connected wires.

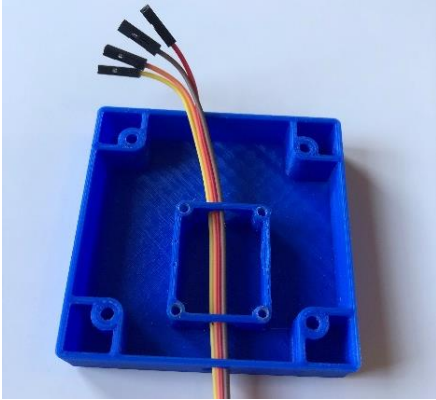


Analog Thumbstick

ASSEMBLY GUIDE

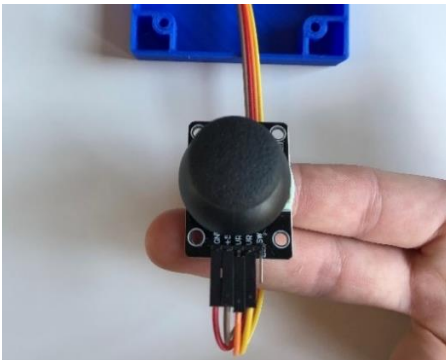
Step 4

Feed the female end of the wires through the 3 holes in the 3D printed joystick base.



Step 5

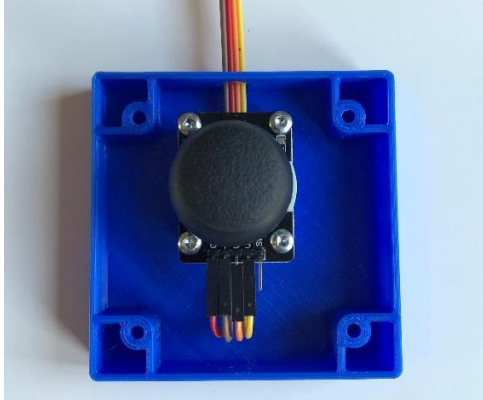
Connect the wires to the GND, +5V, VRX, and VRY prongs on the joystick.



Step 6

Connect the joystick to the 3D printed base with 4 screws.

Analog Thumbstick ASSEMBLY GUIDE



Step 7

Loosen the 4 screws on the headphone adapter.

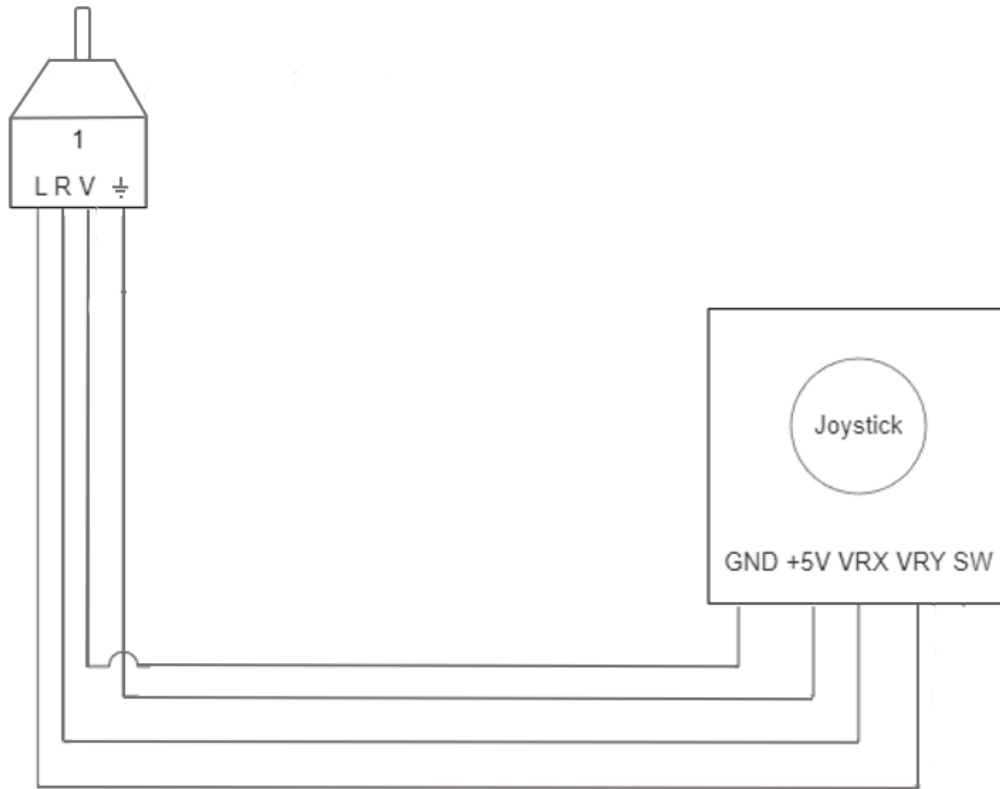


Step 8

Insert the male ends of the wires under the screws in the headphone adapter according to the diagram above. When inserted, tighten the screws to secure the wires.

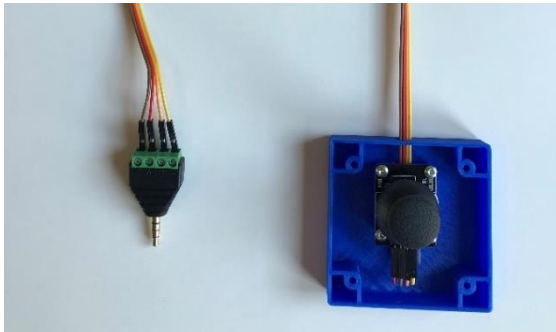
Analog Thumbstick

ASSEMBLY GUIDE



Step 9

This is what the device should look like thus far.



Step 10

Align the 3D printed top of the joystick with the base.

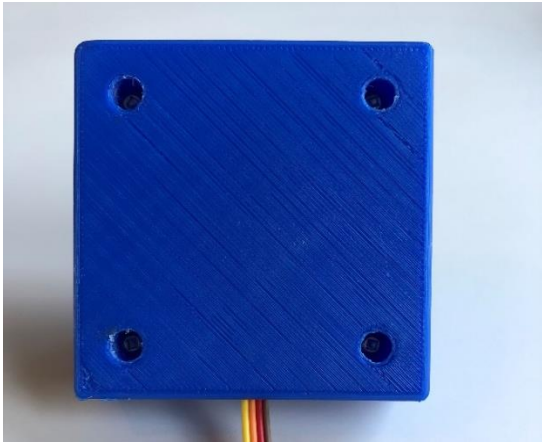
Analog Thumbstick

ASSEMBLY GUIDE



Step 11

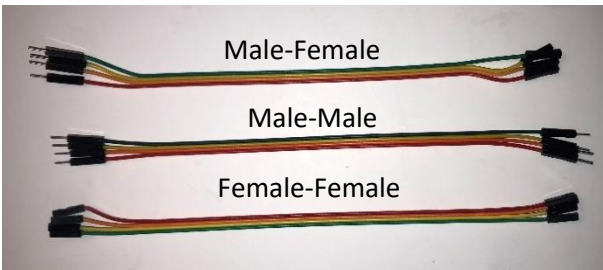
Insert 4 screws in the base of the joystick to hold the top and base together.



Assembly Instructions for Analog Thumbstick with the Press Down Function

Step 1

Locate 12 dupont wires: 4 male – female, 4 male-male, 4 female-female. It is also recommended that you use the same colours for each of these different types of wires.

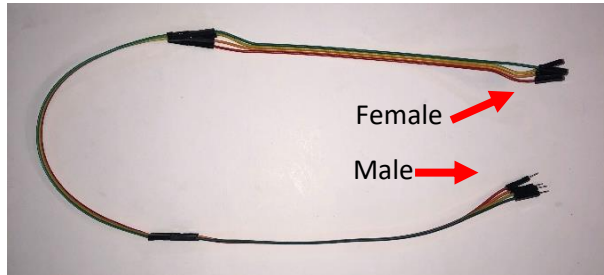


Analog Thumbstick

ASSEMBLY GUIDE

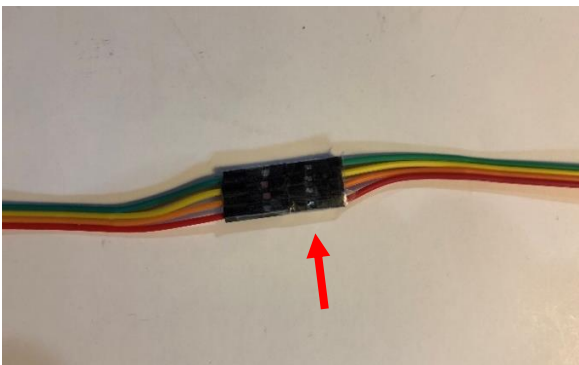
Step 2

Connect the same colour wires so that you now have wires 3 lengths long, with one male end and one female end.



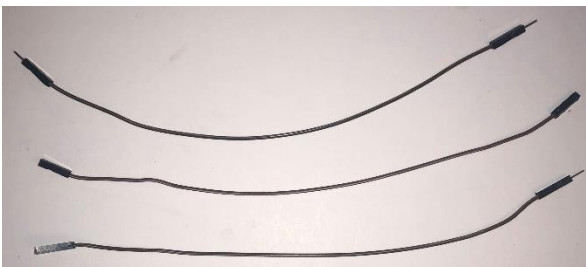
Step 3

Use tape to secure the connected wires.



Step 4

Locate 3 more dupont wires: 1 male – female, 1 male-male, 1 and 1 female-female of the same colour. Connect and tape them to each other similar to steps 2 and 3.

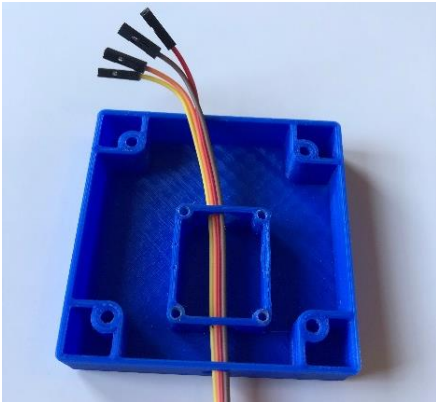


Step 5

Feed the female end of the 5 wires through the 3 holes in the 3D printed joystick base.

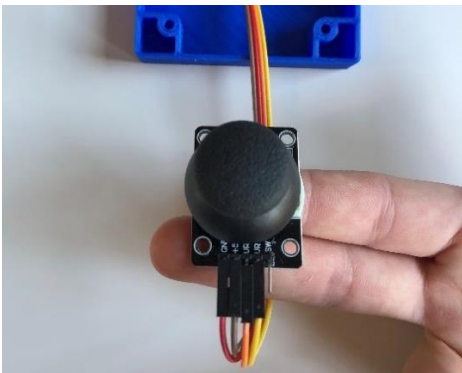
Analog Thumbstick

ASSEMBLY GUIDE



Step 6

Connect the group of 4 wires to the GND, +5V, VRX, and VRY prongs on the joystick. Connect the single 5th wire to the SW prong.



Step 7

Connect the joystick to the 3D printed base with 4 screws.



Analog Thumbstick

ASSEMBLY GUIDE

Step 8

Loosen the 4 screws on both of the headphone adapters.

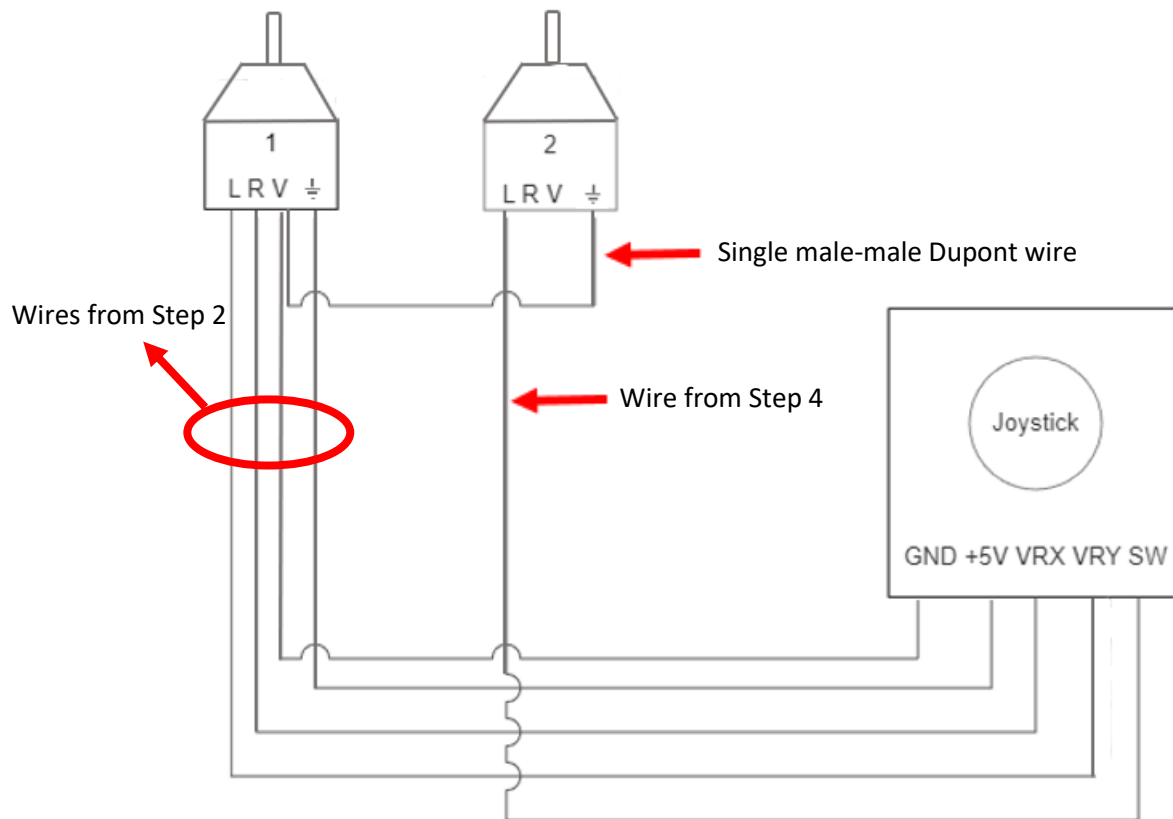


Step 9

Insert the male ends of the wires under the screws in the headphone adapters according to the diagram above. This will also require a single male-male Dupont wire to be used as shown above in addition to previously mentioned wires. When inserted, tighten the screws to secure the wires. Note: on headphone adapter 1, 2 wires will be going into the V port. This may be challenging but both wires should be able to be secured with one screw.

Analog Thumbstick

ASSEMBLY GUIDE

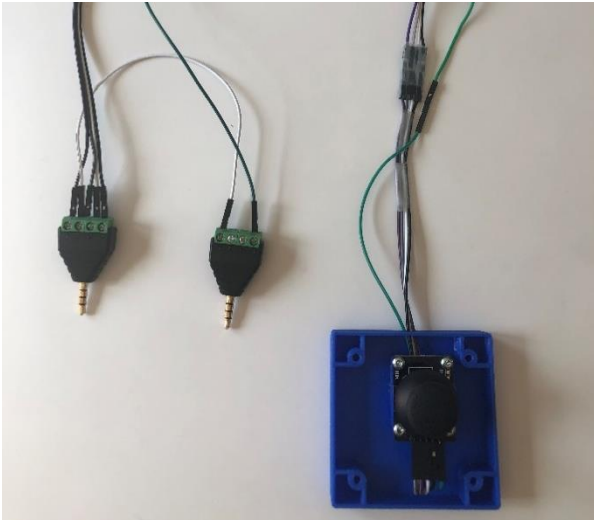


Step 10

This is what the device should look like thus far.

Analog Thumbstick

ASSEMBLY GUIDE



Step 11

Align the 3D printed top of the joystick with the base.



Step 12

Insert 4 screws in the base of the joystick to hold the top and base together.



© 2022 by Neil Squire / Makers Making Change.

This work is licensed under the CC BY SA 4.0 License: <http://creativecommons.org/licenses/by-sa/4.0>

Files available at <https://makersmakingchange.com/project/analog-thumbstick/>

Analog Thumbstick

ASSEMBLY GUIDE

