# Required Components BOM

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| picture of joystick,  dupont wires, headphone adapter, and screws required to build this device | **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.

# 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.

Male-Male

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| --- |
| a picture of the 12 dupont wires that are going to be connected together in the next step  Male-Female  Female-Female |

## Step 2

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

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| **A picture of the dupont wires connected together**  Female  Male |

## Step 3

Use tape to secure the connected wires.

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| a picture of the ends of the dupont wires that are connected taped together |

## Step 4

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

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| a picture weeding the wires though the holes in the 3d printed joystick base |

## Step 5

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

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| a picture showing the wires connected to the joystick |

## Step 6

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

A picture containing blue

Description automatically generated

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| Step 7 Loosen the 4 screws on the headphone adapter.   |  | | --- | | a picture of a green 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.

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| A wire diagram of how to connect the wires from the headphone adpater to the joystick |

## Step 9

This is what the device should look like thus far.

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| a picture of the joystick wired in the 3d printed base |

## Step 10

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

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| a picture of the 3d printed joystick base with the top added to it |

## Step 11

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| a picture of the bottom of the 3d printed joystick base with 4 screw holesInsert 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.

Male-Male

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| --- |
| a picture of the 12 dupont wires that are going to be connected together in the next step  Male-Female  Female-Female |

## Step 2

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

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| --- |
| **a picture of the wires connected**  Female  Male |

## Step 3

Use tape to secure the connected wires.

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| --- |
| a picture of the ends of the dupont wires that are connected taped together |

## 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.

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| a picture of 3 more dupont wires |

## Step 5

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

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| a picture of weaving the wires though the holes in the 3d printed joystick base |

## 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.

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| a picture showing the wires connected to the joystick |

## Step 7

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

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| a picture of the joystick in the 3d printed base with 4 screws holding it down |

## Step 8

Loosen the 4 screws on both of the headphone adapters.

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| a picture of a headphone adaptera picture of a headphone adapter |

## 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.

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| A wire diagram of how to connect the wires from the two headphone adpaters to the joystick  Wires from Step 2  Wire from Step 4  Single male-male Dupont wire |

## Step 10

This is what the device should look like thus far.

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## Step 11

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

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| a picture of the 3d printed joystick base with the top added to it |

## Step 12

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

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| a picture of the bottom of the 3d printed joystick base with 4 screw holes |