ChImp SMD

Thank you for purchasing a ChImp controller board! The 'ChImp' is the integration of two boards, the 'Cthulhu' and the 'Imp', onto a single board. The ChImp can be used by itself as a standalone PC or PlayStation 3 compatible controller. However, the key strength of the ChImp is using it along side a common ground, wired Xbox360 controller. If the ChImp sees that it is connected to an Xbox360, it will hand over control of the single USB cable to the Xbox360 controller automatically. **The ChImp CAN NOT communicate with an Xbox360 by itself! In order to use your arcade stick on an Xbox360 with a ChImp, a common ground Xbox360 controller MUST be hacked and wired to the ChImp.**

Please take a moment to test out your new Chimp by plugging it into a PC with a USB cord. Once the Chimp is plugged in, you should see it listed in the Game Controllers applet in your computer's Control Panel. You will also notice the Red LED on the board lighting up to show it is in PS3/PC mode. Even though Chimps are tested before they are sold, it's a good idea to test this out before trying to install the Chimp into your stick; if there are any problems, you want to know about it now, before wiring it up. You can also test the autodetection on an Xbox360 as well; if the autodetection is working, the Green LED will light up to show that it went into Xbox360 mode.

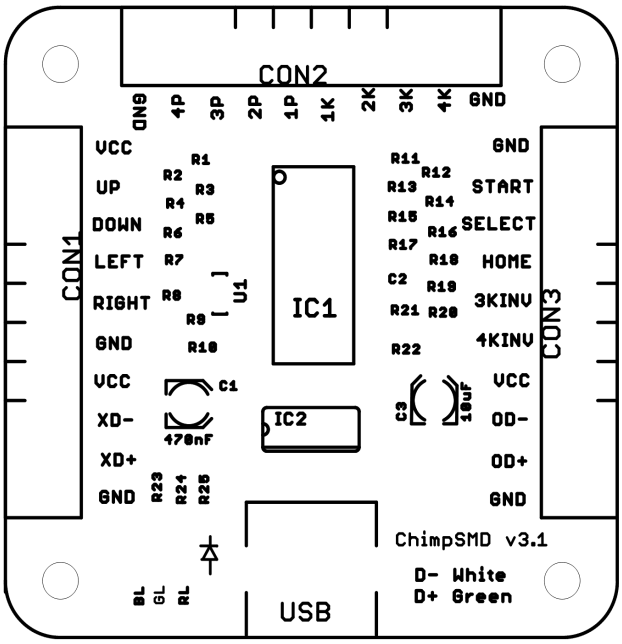
Once you've testing the board by itself, take a moment to familiarize yourself with the screw terminals:

VCC – Used to power the ChImp and any other controller boards dual modded with it.	GND – Ground, part of the power and also the common line to all directions and buttons.
UP, DOWN, LEFT, RIGHT – The signal lines for the four directions controlled by your joystick	1P, 2P, 3P, 4P – From left to right, the four buttons in the top row of your arcade stick.
1K, 2K, 3PK 4K – From left to right, the four buttons in the bottom row of your arcade stick.	Select, Start, Home – The three control buttons, usually in a separate area of the stick from the main play buttons.
XD-, XD+ - The two USB data wires from the Xbox360 PCB. You'll notice that these are next to a VCC and GND screw terminal, so you can screw the four Xbox360 USB wires here neatly.	OD-, OD+ - The two USB data wires for the outgoing USB cable. If you are using a USB cable plugged into the jack, you can ignore these. Notice that there is a VCC and GND screw terminal nearby so you can screw the four outgoing USB wires here neatly.
3KINV, 4KINV – The inverted trigger outputs. These connect to the Left and Right trigger points of Xbox360 gamepads that require inversion.	

LEDs: There are three LED lights on your ChImpSMD, each with a different function.
Blue: Indicates the board has power.
Red: Indicates the board is in PC/PS3 mode.
Green: Indicates the board is in Xbox360 mode.

Taking a peek at the Chimp board in your hand, it should be easy to get an idea of how things are organized. You will see three sets of screw terminals. Just inside of the screw terminals, you will see labels for each screw terminal point. The screw terminal on the left is made to connect to your joystick and the USB cables on the Xbox360 control board, if needed. The middle screw terminal is made to be connected to the play buttons on the face of your stick. The right screw terminal is made to connect to your control buttons like Start, Select and Home, the outgoing USB cable if needed, and inverted trigger lines if needed.

Installation Steps:



1. Connect outgoing USB cable. If your outgoing USB cable can plug into the USB jack, do it now. If the outgoing USB cable doesn't have a plug on the inside end, then strip some insulation off of the end of the USB cord and screw them down in the matching VCC, OD-, OD+, and GND screw terminals in the lower left. Plug into a PC to test and verify the ChImp shows up in the Game Controllers applet of the Control Panel.
2. Wire Stick. Connect the wires for the four directions to the screw terminals, along with the ground wire from the stick. Check the Control Panel applet to verify the directions are correct.
3. Connect the Control buttons (Start, Select, Home) to the matching screw terminals, along with their ground to a GND screw terminal. Verify they work in the Control Panel applet.
4. Connect the play buttons to the matching screw terminals, and verify they work in the Control Panel applet.

By this point, your stick should be fully working for all PS3 and PC games. Now we need to slowly add in the Xbox360 controller, testing as we go.

5. Cut the USB cord of the Xbox360 so there is enough room for the USB cord to reach the screw terminals in the lower left. Expose some insulation from each wire, and screw down in the matching screw terminal. Test it out by plugging into an Xbox360 that is on; the green ChImp LED will turn on showing that it sees the Xbox360 like normal, but the key is to see if the player indicator LEDs on the Xbox360 controller turn on and eventually settle on a player number like normal. If they do not end up settling on a player number, then there is a problem with the wiring connection in those four wires, or a problem with the Xbox360 controller. Either way, you need to find and fix it, or replace the controller, before going any further. If the player indicator lights don't settle on a player number like they should, then there is no point to going any further until they do.
6. Connect the signal lines for the d-pad, face buttons, control buttons, LB and RB buttons all to the matching ChImp screw terminals. Test them out to make sure they work.
7. If the LT and RT points on your Xbox360 controller are digital (MadCatz FightPad/FightSticks), then just connect them to the matching 3K and 4K screw terminals. If the triggers on your Xbox360 controller are analog, then remove the potentiometer from the control board, and connect the middle pin that was connected to each potentiometer to the 3K and 4K screw terminals. Test the arcade stick on an Xbox360; if the Xbox360 behaves as if the triggers are always pressed, even when you haven't hit the button, move the signal lines from 3K to 3KINV and from 4K to 4KINV.

Please understand that a dual mod like this is a complicated procedure, and NOT for those new to electronics. Support will only be given to ensure that the ChImp works as expected on PC and PS3 consoles; support is NOT available to assist with dual modding. If you cannot accept this, please return your ChImp in unused condition to the place of purchase. Happy Modding! - Toodles, 9/9/10