# TE-S Kitty Install Guide

This guide will walk you through the process of installing a TE Kitty mod and TE-S Kitty harnesses into your Xbox360 TE-S version MadCatz FightStick.

Please make sure you have the proper parts and tools ready:

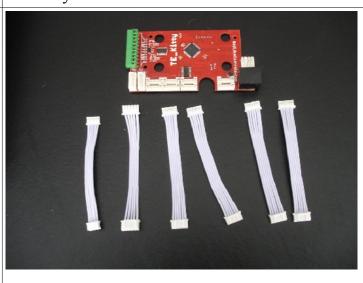
- Xbox360 version MadCatz TE FightStick
- TE Kitty board
- Six (6) ribbon cables included in the TE Kitty kit
- TE-S Kitty kit containing 3 special wiring harnesses
- Wire cutters
- Phillips screwdriver (#0 or #1 in size)
- #3 (3mm) metric Allen wrench
- Electrical tape
- X-acto or similar hobby knife
- Sharpie or similar permanent marker
- Small flat blade precision screwdriver
- Needle nose pliers

Any model of MadCatz TE-S based FightStick will work. To verify if yours will work, plug it into a console and move the lock switch to the 'locked' position. If the 'locked' position disables Start and Back, then that stick requires the TE-S Kitty harness kit, and this set of instructions. If Start and Back still work with the switch set to 'locked', then your stick is able to be modded with a TE Kitty kit; there is no need to purchase a TE-S Kitty kit, and you should follow the standard TE Kitty installation guide instead of this one.

TE-S Kitty harness kit



TE Kitty board & included ribbon cables



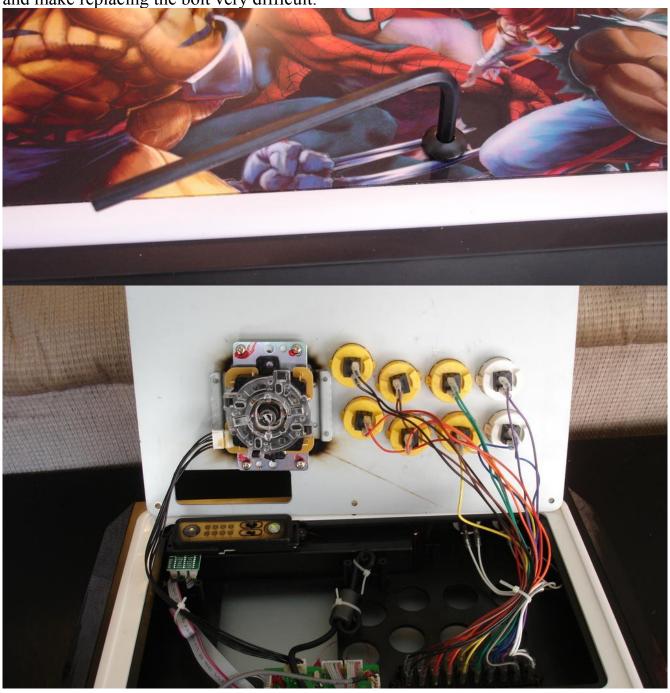
Note: The installation instructions for the TE and TE-S are actually very similar except for the ribbon cables. To save time, a lot of the original TE Kitty instructions and pictures are just copy and pasted over, and any TE-S specific steps have been changed or added. Follow the directions as written and don't worry if the stick is blue in one picture and black in the next.

## Step 1: Remove top carriage bolts

The top control panel section of the FightStick is held down by six black carriage bolts. Use the 3mm metric Allen wrench to remove all six carriage bolts so the top panel may be lifted up.

Note: The nuts that the bolts are attached to inside the FightStick are held in place by some red glue that can be knocked loose far too easily. Make sure that when you are unscrewing the carriage bolts, do NOT put any downward pressure on the bolt. Turn, but never press down. If you do, the pressure could cause the nut to separate from the plastic

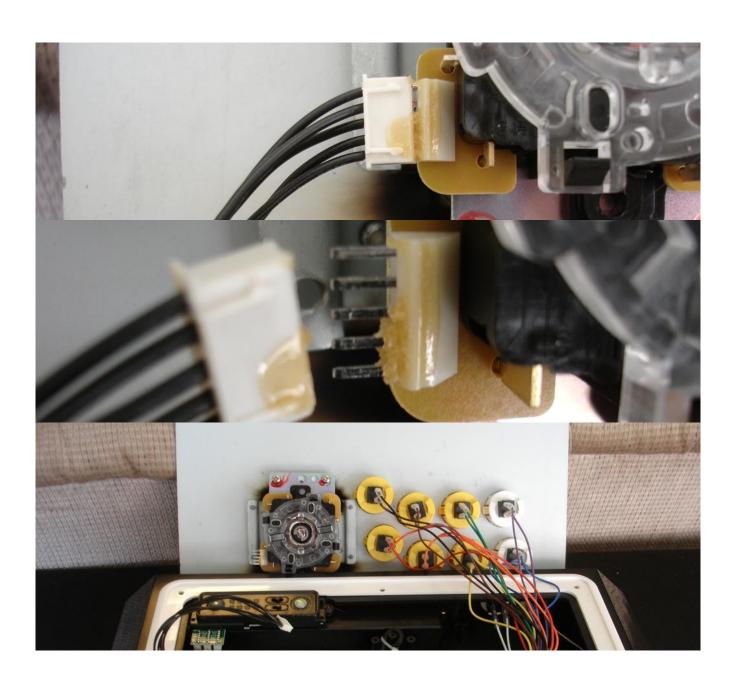
and make replacing the bolt very difficult.



## Step 2: Disconnect the Joystick

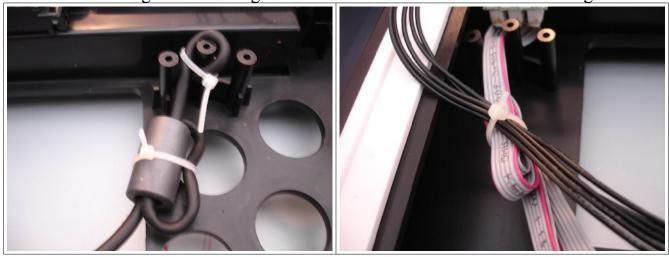
We can lift up the top, but we can't easily work on the insides yet. If we disconnect the joystick, we can set the top panel on the back of the stick and give us free access to the inside of the stick.

This is our first run-in with the evil yellow glue that covers almost every connector in the stick. Luckily, this is also the easiest one to deal with. If you want, you can use the hobby knife to cut the glue, or just pull the connector off of the joystick and tearing the glue. Either way, disconnect the joystick, and set the top panel on its edge behind the stick so the real work can begin.

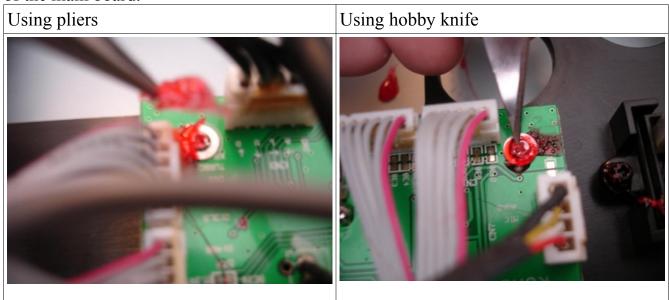


Step 3: Free up cables, unscrew main board

The USB cable has two zip ties on it, and the wire bundles on the left have one. All three of these zip ties need to be snipped and removed. Make sure to cut the zip ties but leave the cables undamaged! This will give us as bunch more freedom to move things around.



Next you will see the main FightStick pcb in the middle. There are four screws mounting it to the FightStick case, each one topped with a red gooey substance. We need to remove the screws, but we need to remove some of the red goo first. If the goo is a large enough dollop, you might be able to pull it off with a pair of needle nose pliers. If not, the easiest way to get the job done in my opinion is to use the hobby knife to remove goo from the center of the screw, exposing the '+' area the screwdriver goes. Once your screwdriver tip can get in, just unscrew the screw and the red goo will lift off of the main board.



Remove all four screws and set them aside for later.

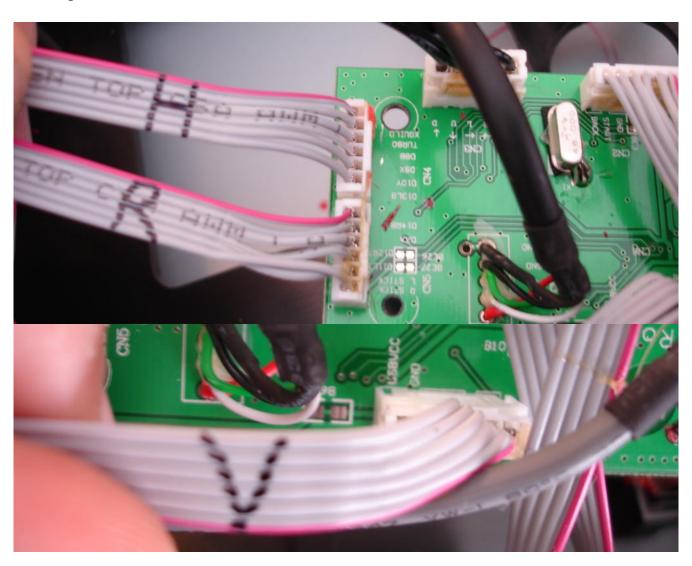
#### Step 4: Label H, R, and V cables

This may sound silly, but taking a moment to write on three of the ribbon cables will save you a ton of confusion and time down the road.

There are three ribbon cables going from the main TE board to the LED/Guide/Turbo section in the upper left. These are easy to get mixed up, so while they are still connected, we're going to take a moment to mark them so things will be easier down the road. Grab your permanent marker and follow along.

You will see that two of these ribbons connect on the left hand side. The markings on the main board show that the top one has the 'XGUILD' line, aka the Guide button. Mark this one with an H, for 'Home Button'. The bottom one is connected to the header with the label 'RSTICK'. Label this ribbon with an R.

The third ribbon cable connects to a header on the bottom edge, and this header has a marking for 'USBVCC'. Mark this ribbon cable with a 'V', for 'VCC'.



#### Step 5: Unplugging cables from main PCB

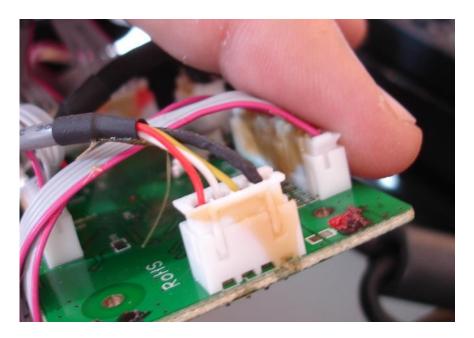
You MUST take your time and use a lot of care on this step. This is the only step in the mod process that can actually damage things and make the mod go sour, so please read this section thoroughly, go slow, take your time, and do this one right the first time.

Everything coming from the main FightStick PCB except for the USB connector is going to a connector on the outside edges of the board. We need to remove all of them, leaving the USB cable in the middle untouched. The connectors are made to be removable, but MadCatz has used a ton of that yellow glue to secure each connector to its header. This glue is unbelievably strong. If you just yank on the ribbon cables to try and pull the connector out, you WILL pull the ribbon cable out of the connector, and repairing that is neither fun nor easy.

Rule 1: NEVER pull on the ribbon cable. When removing the connector, the force should only be on the white plastic connector, never the wire.

Rule 2: NEVER try to remove the connector until all of the yellow glue has been cut between the connector and header.

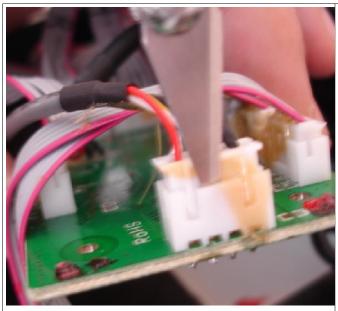
The easiest one to start with also happens to be the least important. One the far right edge of the board is a four pin header going to a gray insulated cable that goes to the headset jack on the stick.

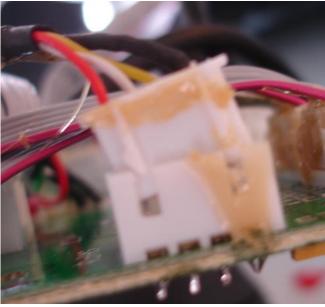


In the picture above, you can see the yellow glue where it connects to both the connector on the top and the header shroud on the bottom. Trying to remove all of that glue would take forever, so instead we're going to cut the glue that connects the top connector to the bottom shroud.

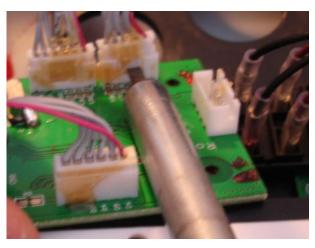
#### Step 5: Continued

Slip your hobby knife in between the connector and shroud and run it slowly across to cut the glue in between the connector and shroud. In the picture below, you can see that there is glue connecting the two pieces in the little notch on the right. Make sure to cut the glue in this area as well. The goal here is to cut the glue in the spots between the connector and shroud, without damaging anything; cut the glue, not the white plastic. Once you are sure the glue has been cut in a way that separates the glue on the connector from the glue on the shroud, use your fingertips on the tabs of the top white connector to slowly lift it up and away from the board. NEVER pull on the cable.





All of the ribbon cables except for the headset jack and the joystick have a trick that makes safely removing the connector much easier. After you've cut the glue to the best of your ability, wedge the flat blade of a small screw driver between the connector and shroud from underneath the connector in the front cut away window. The blade won't go all of the way in because of the metal header posts, but the blade can be twisted, separating the connector from the shroud without putting ANY force on the



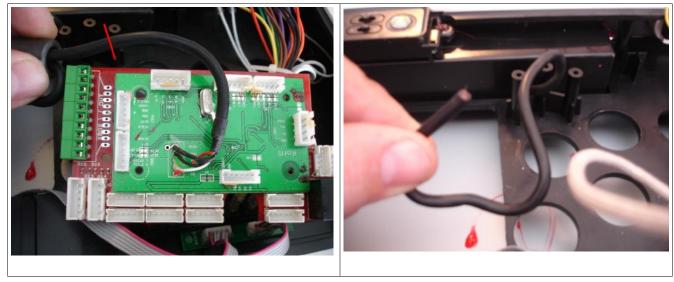
ribbon cable. Any glue still connecting the two pieces will be easily seen, and usually tear clean from the force.

Repeat until all of the ribbon cables plugged into the TE board are removed, and only the black USB cable in the middle remains.

## Step 6: Cut and prepare the USB cable

## Measure twice, cut once.

Grab the TE Kitty board and place it underneath the main TE board so that the four mounting holes lines up. By the time we finish, the section of cable soldered to the main TE board needs to have each wire screwed into the four bottom screw terminals on the left. Using your wire cutters, cut the USB cable about 1inch from ferrite ring the cord is wrapped around. Once you make the cut, unloop the cord so the ferrite ring can be slid off and discarded.



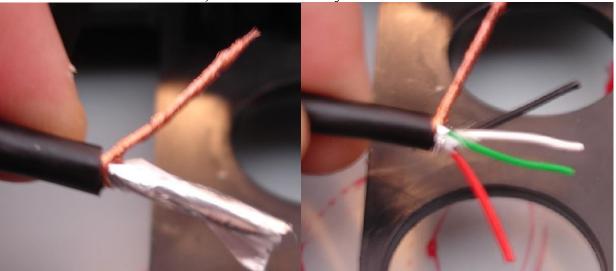
Now we need to prepare the ends of the cables on both sides of the cut you just made. Follow these steps for both the section still connected to the main TE board and the section of USB cable heading out to the cord compartment.

Using your hobby knife, gently cut a ring around the cord in the outer black insulation 1 inch (25mm) from the end you just cut. The goal is to cut the outer black insulation without damaging any of the wires inside. Slide the insulation off once free.



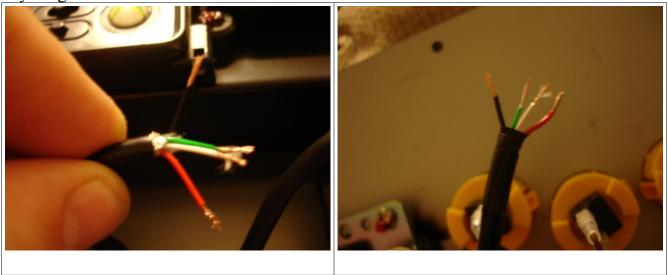
#### Step 6: Continued

With the insulation off, you will see some thin copper wires, and a silver tin foil-like covering the innermost colored wires. Cut the uninsulated copper wires close to where the insulation was trimmed, and unwrap the foil and cut it at the same spot. From where the insulation was removed, there should only be four insulated and colored wires.



(The twisted copper in the pictures above is the thin uninsulated copper that should be trimmed at the insulation.)

Now we need to remove about 1/8 of an inch (4mm) of insulation from the end of each of these four wires. Using proper tools is best, but a hobby knife or even teeth can be used in a pinch. After this small length of each wire is exposed, twist the strands together so they will be easier to work with. Once all four wires have exposed ends, use a small piece of electrical tape around where the black insulation was cut. We want to safely wrap the little ends of uninsulated copper and tin foil so they cannot make contact with anything else.



Make sure to repeat for the other end section of USB cable.

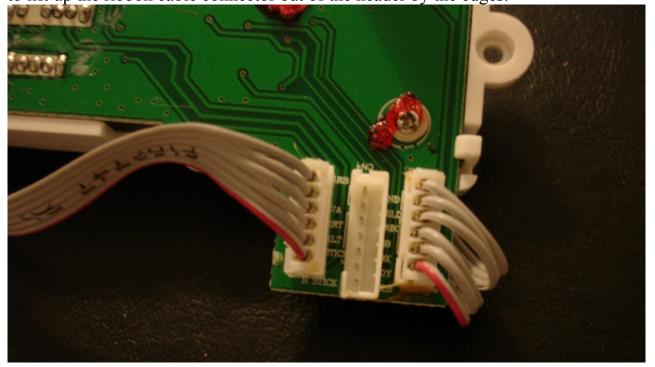
## Step 7: Prepare LED daughterboard

The small module on the upper left that holds the Guide button is held to the main stick case by two screws on either side, and secured with more of the red glue. Use your hobby knife to remove the glue from the '+' in the middle of the screw so your screwdriver can turn the screws. Remove both screws, and lift up the module and flip it over so you can see the connectors on the bottom that the ribbon cables are going into.



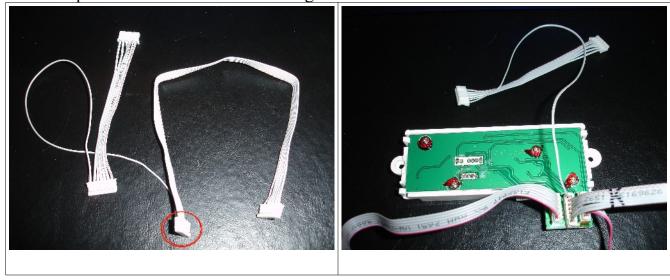
The three connectors on the bottom should still have a ribbon cable connected to each one, the cables that were labeled with the H, R, and V marks earlier. The middle cable, the one marked with the V, needs to be removed, and the other two outside ribbons need to remain exactly where they are. The middle connector will have a little bit of the yellow glue on it, but the good news is that the glue will only be on the edges you can get to.

Cut the yellow glue on the center connector with your hobby knife. Use your fingernails to lift up the ribbon cable connector out of the header by the edges.



## Step 7 Cont'd

Take a moment to look over the cable harnesses in the TE-S Kitty kit. One of the harnesses is made up of two ribbon cables connected by a wire. Each of these two ribbon cables has a single seven pin connector on it. Locate the seven pin connector on the longer ribbon cable; that is the connector that goes into the LED daughterboard in the spot we just opened up. Mark it with a 'K' with your permanent marker, and insert it into the open connector on the LED daughterboard.



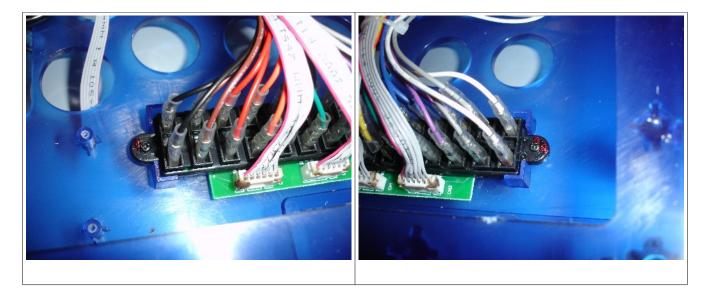
Now we're done with the LED daughterboard. Turn it back over and put it back into its spot in the upper left of the TE case. Use the two screws we removed in the beginning of this step to secure it back in place to the main case. Orient the ribbon cables coming from the LED daughterboard as nicely as you can, trying to keep them to the left and under the case lip as much as possible.



## Step 8: Prepare button distribution board

All of the play buttons on your TE are connected to a small board in the lower right of the case. This is the button distribution board. There are two ribbon cables that connect to the bottom of this board. We need to remove those ribbon cables and replace them with the two remaining ribbon cables that came in the TE-S Kitty kit.

The button distribution board is held to the main case using two small screws on either end. These screws are also covered in the red glue. Use your hobby knife to clear out the red glue from the center '+' notches of the screws, and then use your screwdriver to remove both screws. Leave the thick wires connecting this board to the buttons in place. We just want to lift the distribution board up so we can get to the ribbon cable connectors and cleanly remove them.



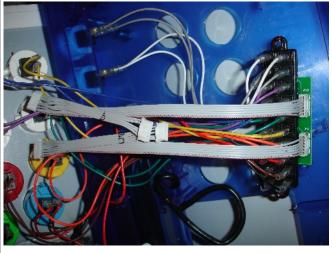
Once the screws are removed, lift the board up and examine the two ribbon cable connectors. The yellow glue is present there as well. Using the same techniques as before, cut the yellow glue with your hobby knife, and use a flat blade screw driver to remove the ribbon cable connectors from the header on the board. Set the ribbon cables aside. We won't be needing them.



#### Step 8 Cont'd.

Once the ribbons have been removed from the button distribution block, we're going to plug in their replacements. In the TE-S Kitty kit, there are two harnesses with three connectors; both have a longer 6 wire ribbon section, and a shorter 5 wire section. What makes these cables different is the end connector on the shorter 5 wire section of ribbon cable. One harness has a 5 pin connector, and the other has a 6 pin connector. On each harness, use your permanent marker to write either a '5' or a '6' next to the middle connectors. This will help make things easier when we get to the final assembly.





Once you've marked the harnesses, we're going to plug them into the connectors on the button distribution board. The important part here is that you need to plug in the connector on the far end of the longer ribbon cable; not the middle connector, and not the connector on the short ribbon cable.

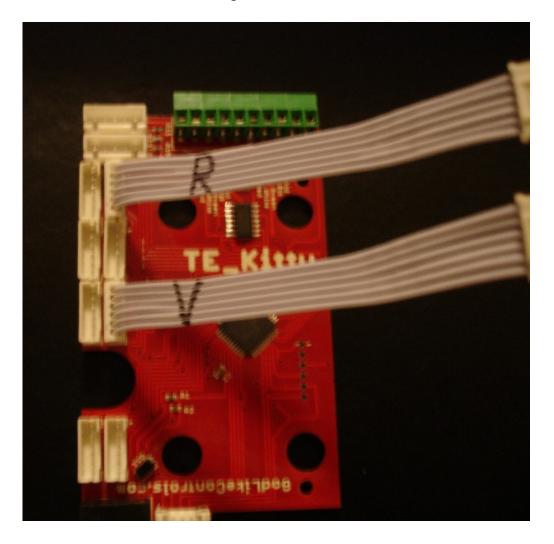
Plug the far end of the long ribbon of the cable marked '5' into the left connector (CN1). Plug the far end of the long ribbon of the cable marked '6' into the right connector (CN2).

Place the distribution block back where it originally was, and replace the two screws to secure it back to the case.

#### Step 9: Ribbon Cables Galore

After a bunch of disassembly, now we are going to start reassembling everything, plugging the Kitty into the TE board. All of the prep work is done, now it's just a matter of plugging everything in properly. If you've been marking the ribbon cables as indicated, this is a simple matter of 'Plug Connect A into slot B'. Go slowly, one step at a time, and this will be a cakewalk.

9A: From the original TE Kitty kit, not the TE-S Kitty kit, grab two of the ribbon cables with 6 pin ends. Plug them into the INSIDE connectors shown below. Mark them with an R and V as shown in the photo below.



9B: From the original TE Kitty kit, not the TE-S Kitty kit, there are two ribbon cables with 5 wires. One has a smaller connector identical to the rest, and the other cable has a larger connector different from the rest. This cable with the larger connector is the one we want; it's the one that carries the joystick directions. Connect one end to the inside connector, shown in the upper left of the picture above.

9C: Take the ribbon cable you inserted in step 9B, and connect the other end to the matching connector on the main TE board, labeled 'CN3'.

9D: Connect the 'R' ribbon cable end to the main TE board in the connector labelled 'CN5'. You'll see one of the pins is labeled 'R STICK' on the board.

9E: Connect the 'V' ribbon cable end to the main TE board in the connect labeled 'CN6'. You'll see one of the pins is labeled 'USBVCC' on the board.

This is how your setup should look now:

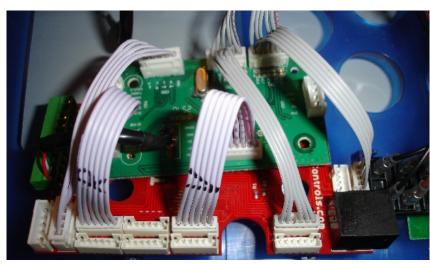
9F: Locate the ribbon cable marked '6' coming from the button distribution board. Plug the middle connector into the main TE board in spot 'CN2'.

9G: Locate the ribbon cable marked '5' coming from the button distribution board. Plug the middle connector into the main TE board in spot 'CN1'.

9H: Plug the free connector on the '6' ribbon cable into the 6 pin connector on the Kitty next to the RJ-45 jack. It doesn't matter which of the two you plug it into.

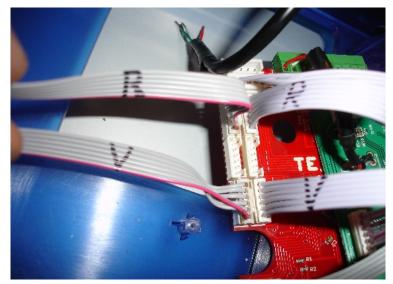
9I: Plug the free connector on the '5' ribbon cable into the 5 pin connector on the Kitty next to the RJ-45 jack. It doesn't

matter which of the two you plug it into.

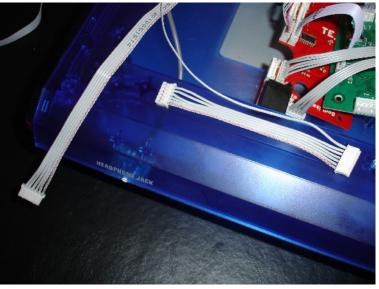


## Step 9 Cont'd

9J: Two of the original ribbon cables coming from the LED daughterboard should have been labelled with an 'R' and an 'V' in earlier steps. Plug those into the Kitty in the outside connectors next to the 'R' and 'V' ribbon cables going to the main TE board.



9K: You should have three connectors left coming from the LED daughterboard: one on the end of a 6 strand ribbon cable, and the small ribbon cable connected with a single wire. The smaller ribbon has one connector with 7 pins where the single wire and the small ribbon both go. Plug that 7 pin connector into the main TE board in the spot labeled CN4. The other end of that small ribbon cable plugs into the Kitty on the INSIDE header between the 'V' and 'R' ribbons. The last connector on



the end of the long ribbon cable coming from the LED daughterboard going into the OUTSIDE header between the 'V' and the 'R' ribbons on the Kitty.

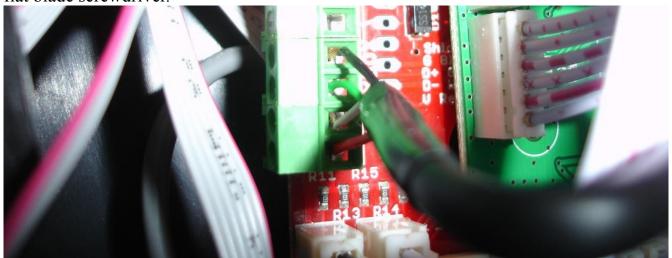
## Step 10: Connect first USB wires

The length of USB cable coming from the original TE board needs to be screwed down in the bottom four spots of the screw terminals. There is writing on the TE Kitty board to show you what should go into each screw terminal, but it may be hard to see with the original TE board in the way.

The red wire goes into the bottom-most screw terminal.

The white wire goes into the second to last screw terminal, above the red wire. The green wire goes into the third to last screw terminal, above the white wire. The black wire goes into the fourth to last screw termina, above the green wire.

Twist the exposed copper wires at the end of each colored wire together so they will go into the screw terminal easily, then tighten the screw terminal down using your precision flat blade screwdriver.



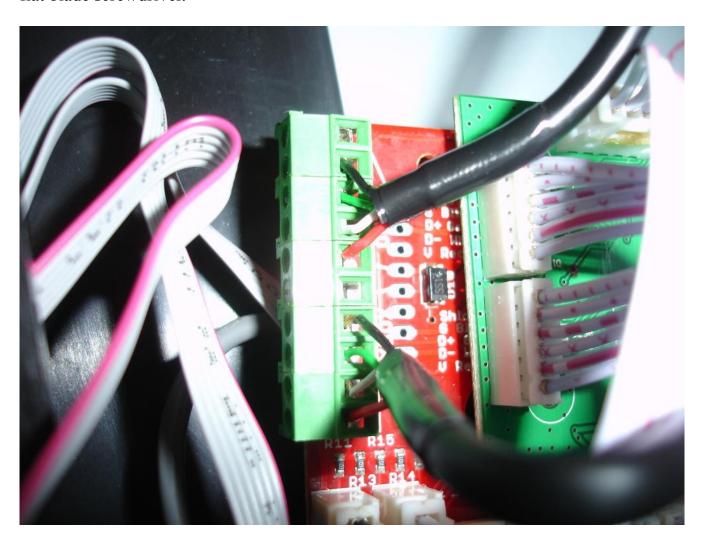
Step 11: Screw down outgoing USB cable.

The section of USB cable that goes to the cord compartment should have already been prepared in step 6. If not, go back and get it ready.

The red wire goes into the fifth screw terminal from the top.

The white wire goes into the fourth screw terminal from the top, above the red wire. The green wire goes into the third screw terminal from the top, above the white wire. The black wire goes into the second screw terminal from the top, above the green wire.

Twist the exposed copper wires at the end of each colored wire together so they will go into the screw terminal easily, then tighten the screw terminal down using your precision flat blade screwdriver.



#### Step 12: Testing

Everything except for the joystick on the control panel top should now be wired up. Now is a good time to take a moment to test the stick out.

Make sure the lock switch is set to 'unlock'. Plug the USB cable into a computer with the Guide button held down. You should see the upper left and lower right player LEDs light up. If you press buttons on the control panel, you should see the matching turbo LED light up as well. If all eight buttons light up as expected and the player LEDs light as expected, then you've verified that the outgoing USB cable is screwed down properly, the three ribbon cables between the TE Kitty and LED/Guide/Turbo daughterboard, and the two ribbon cables between the TE Kitty and button distribution board are all connected properly.

Unplug the USB cable and plug it back in, without anything held down. Check to see if the 'Kitty TE Edition' shows up in the Game Controllers applet of the control panel (Start->Run-> 'control joy.cpl'). If the controller is listed, then we know that the firmware has been flashed on the main board. If not, download the most recent firmware from here:

http://www.godlikecontrols.com/download/kitty/tekitty.zip

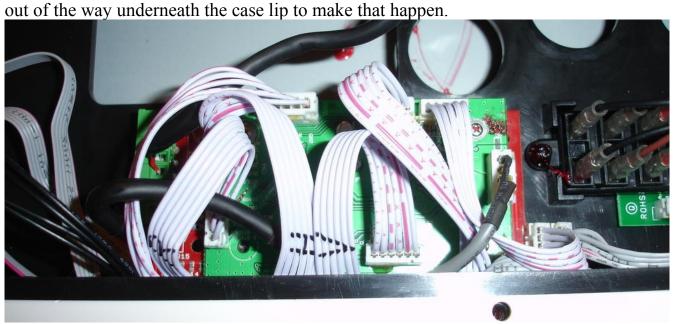
Follow the directions to enter bootloader mode and flash the firmware.

Next, unplug the USB cable from the computer, make sure the lock switch is set to 'unlock', move the LS/DP/RS slider to 'RS', hold the Turbo or Back button down, and plug the stick in. The entry in the Game Controllers applet should show an entry for the original TE pcb, something like 'Arcade Stick (MadCatz FightStick TE)' or 'Street Fighter IV FightStick TE (Arcade Stick)'. Setting the slider to RS and holding Turbo or Back forces the stick to switch over to Xbox360 mode and let the original Xbox360 board talk to the computer or console. Select the game controller in the window and click 'Properties'. Push any of the play buttons and you should see the matching button in the Test tab light up. Hold down the Turbo button and press each of the eight play buttons, then let go of Turbo. You should see all of the Turbo LEDs on, and when the button is pressed, it will flash a bit brighter. You should also see the upper left player LED lit. If all buttons light up as they should when pressed, flash brighter when turbo in on and the button is pressed, and the upper left Player LED is lit, that verifies that the USB wires from the original TE board are connected properly, the H, R, and V ribbon cables connecting the TE Kitty to the original TE board, and the two ribbon cables for the button lines between the TE kitty and original TE board, are all present and working properly.

The only thing left is the joystick itself which we need to save for last to make things easier.

#### Step 13: Mount and connect joystick

The original TE board was mounted on four posts coming from the bottom of the case. The TE Kitty board has four large holes meant to go over these posts. Move the TE Kitty so each of the four small posts are sticking through the holes with the TE Kitty resting against the very bottom of the case. You will have to orient and nudge the ribbon cables



Once the four posts are sticking up through the holes in the TE Kitty, line up the original TE board so the the mounting holes are over the holes in the mounting posts. Grab the screws that originally held the board to the posts and screw them down. The screws closest to the wall of the case can be very hard to get to, just please make sure that AT LEAST two of the screws are replaced. All four is better, but it can be difficult to get to them.

Once the original TE board is screwed down, grab the gray insulated cable that goes to the headset jack and plug it into the TE board in the only unused header spot.

Take the metal control panel top and move it closer to the stick so you can plug the free end of the joystick cable back into the joystick. Take a look at the end and make sure that you are putting it back as it was.



Rest the control panel on the stick but do not screw down.

## Step 14: Test joystick

This step is especially easy. Plug the joystick into a computer, wait for the player LEDs to turn off, and then move the joystick. The player LEDs should change to show what direction the joystick is in. If only a single cardinal direction is working, you have the cable plugged into the joystick backwards, and you need to flip it around. This verifies that the cable connecting the joystick to the TE Kitty is on correctly.

Unplug the joystick, move slider to RS, and plug the stick in with Turbo held down to force the Xbox360 mode. Go into the Properties page for the joystick, and verify that movement of the stick shows up properly. This verifies that the large five pin ribbon connecting the TE Kitty to the original TE board is on correctly.

## Step 15: Close up

Take the USB cable just inside from the cord compartment and loop it neatly over the middle post next to where it comes out. Properly looping it here will help catch any pulling on the cord and protect the cord from damage.



This next part may take a little finesse. Rest the control panel on top of the stick where it should go and try to get it all of the way down against the stick case. There's a lot of wires running all over the stick, and any of them can get between the case and the control panel keeping it from staying flush against the case. Move and adjust any wires as neatly out of the way as you can, preferably under the outer case lips. The wires going to the buttons will try to get between the case and control panel on the left, and the wires going to the joystick will try to do the same on the left, and all of the cables and wires will try to get underneath the pushbuttons and joystick. Arrange and route the cables as best you can so the control panel will lay flat on the case.

Place the carriage bolts through the holes in the top of the control panel and use your hex wrench to rotate them clockwise so they screw the control panel down. Remember, do NOT put any downward force on the carriage bolts. Turn it, but do not press on it or you could knock the nut loose underneath.

Once all six carriage bolts are replaced and turned tight, your mod is complete. Play and enjoy!

## Optional Step: RJ-45 jack installation

Using just the USB cable, your Kitty modded TE stick will work properly on Playstation 3, PC, and Xbox360 consoles. Adding an RJ-45 jack to your stick opens up your stick to work easily on many more systems, including Gamecube, Playstation, Playstation 2, Dreamcast, Sega Saturn, Original Xbox, SNES, NES, and many other game consoles. This optional step will guide you through the installation of a Neutrik RJ-45 pass-through jack into your arcade stick so you can play your arcade stick on these older consoles.

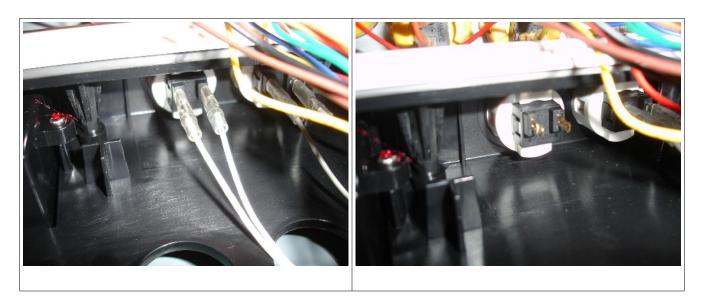
Gather up the parts and tools you are going to need for this step:

- Neutrik RJ-45 pass through jack
- Short Ethernet cable
- Phillips screwdriver
- Rotary tool or drill with small drill bit
- zip tie or twisty tie (optional)
- #3 (3mm) hex wrench
- Needle-nose pliers

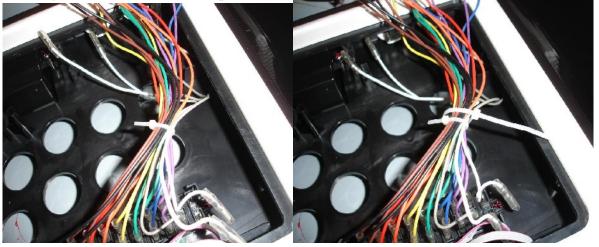


## Optional Step 1: Remove Back signal wires

The RJ-45 jack is going to go into the spot the Back button currently is. Using the hex wrench, remove the six carriage bolts holding the top control panel down. Lift up the control panel so you can access the inside of the stick. The Back button will be the one closest to the center of the stick, so peek at it and verify what color the wires are. Then, unplug those two wires from the button.



Take a look to where those same wires are also connected to the distribution board and unplug the wires from there as well. Loosely place another zip tie or twisty tie near where the original is. Cut and remove the original zip tie along with the unneeded wires, then tighten down the new zip tie or twisty tie.



## Optional Step 2: Remove Back push button

The placement of the Back push button can make it a bit tricky to remove properly. There is a good chance that the button may be broken while trying to remove it. This is a waste, but it happens. Since we won't need it any more, it's not that big of a loss.

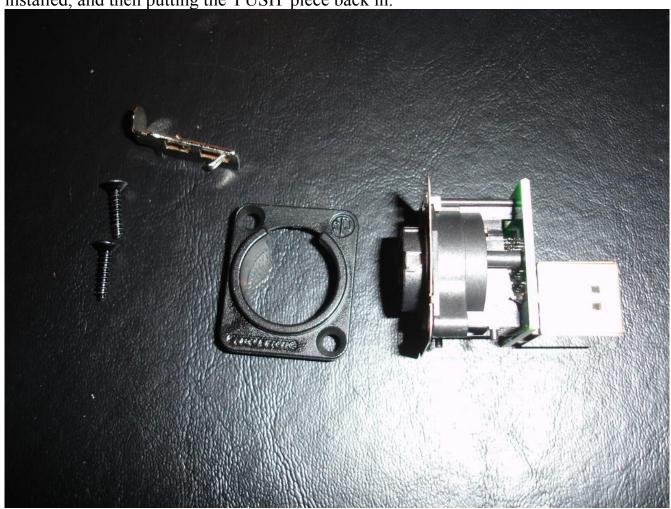
The push button is held in place by two prongs on the side of the button. On all of the sticks I have worked on, these prongs are invariably on the top and bottom, making them hard to get to because the bottom of the case and the top lip of the case restrict access there. If you can, try to use a flat blade screw driver to push these prongs into the push button, while applying pressure on the bottom of the button to push it out. This is the best and most proper way to remove the button. It is also the hardest.

Another option is a bit hackish and may break the button, but it is the easiest method I know of. From the inside of the case, push outwards directly on the black microswitch piece of the pushbutton. This should cause the microswitch and plunger portion of the button to come out, leaving the out white shell of the pushbutton in place. From there, you can use a pair of needle nose pliers on the outside of the case to grab and pull in the prongs holding the pushbutton shell in place. The shell should then easy come out.



## Optional Step 3: Disassemble Neutrik jack

Remove the two screws from the Neutrik assembly and the metal cover plate should come off freely. The 'PUSH' piece can also be pulled out if desired, but doesn't have to be removed, it just makes things easier. The 'PUSH' piece itself isn't required at all unless you want to use the matching Neutrik protective boots on the ends of your cables, but there is no harm in keeping it so I recommend pulling it out until the jack is fully installed, and then putting the 'PUSH' piece back in.



## Optional Step 4: Put Neutrik pieces in place for drilling

We will need to end up drilling two small holes for the Neutrik mounting screws to go through, but first we need to put the Neutrik jack in place so we can know for certain where we will need to drill.

Place the main Neutrik body on the inside of the case with the outgoing RJ-45 jack facing out through the vacant Back hole. Place the metal plate piece on the outside of the case and into the Back hole. The two pieces mate together in a specific way, so make sure the RJ-45 notch is on the bottom, and the notch in the circle of the metal plate is on

the top as shown here:



Make sure the two pieces are mated properly, hold them in place with one hand, and use your rotary tool or drill to drill two small holes through the mounting holes in the metal piece. Do not drill far! You just want the holes in the plastic case of the arcade stick. If you drill too far, you could damage where the screws go in the main body. It is best if you just start the drilling so it marks the spot in the plastic, then remove the inside main piece of the Neutrik jack, and then finish drilling through the plastic.

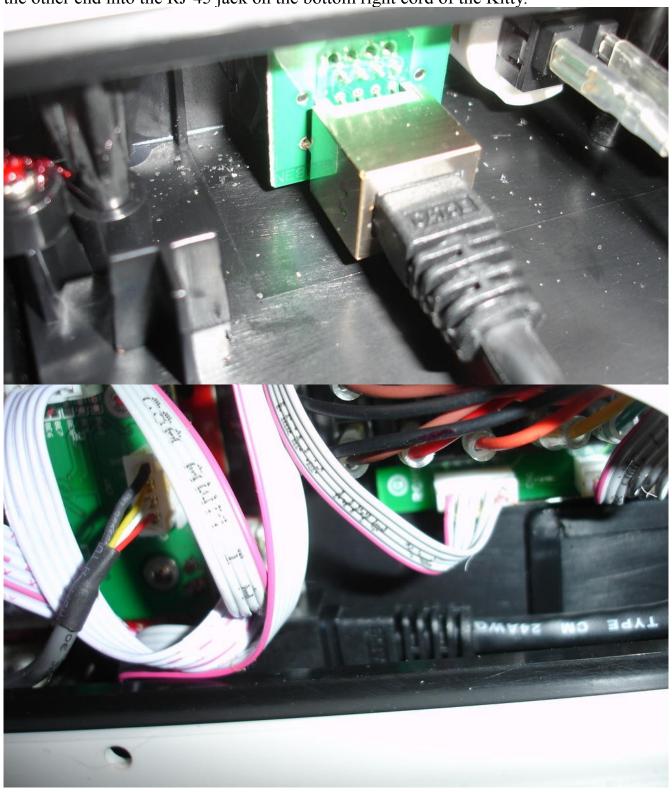
Replace the main body of the jack on the inside of the case, and screw the two screws through the new holes the main body of the jack. Reinsert PUSH piece.





## Optional Step 5: Connect Jack to Kitty

Use the short Ethernet cable and plug one end into the inside of the Neutrik jack. Plug the other end into the RJ-45 jack on the bottom right cord of the Kitty.



Replace the top control panel and six top carriage bolts. Play and enjoy!

Version notes: 5/31/11 - v1.0 initial release.