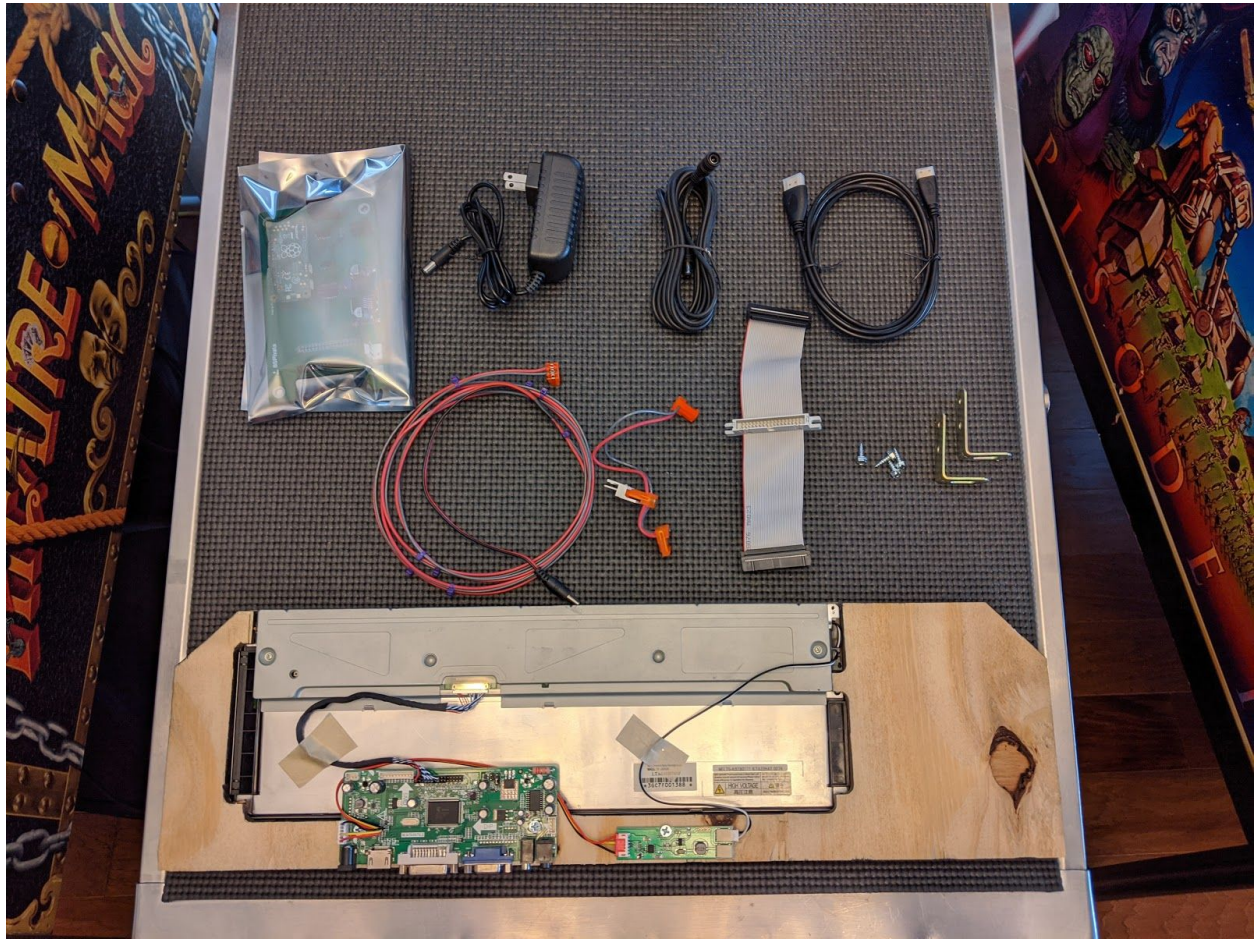




PinVision for Twilight Zone

Installation Manual

Package Contents



Part	Quantity
Controller Board	1
12V Power Adapter	1
DC Power Extension Cable	1
HDMI Cable	1
Display Power Harness	1
Power Sensing Harness	1
½" Wood Screws (Hex Head)	2
½" #10 Wood Screws (Phillips Pan Head)	2

Mounting Brackets	2
Backboard Unit	1
34 Pin Data Cable Adapter	1
5/8" Threaded Aluminum Standoffs	2

Step 0: Backboard Preparation

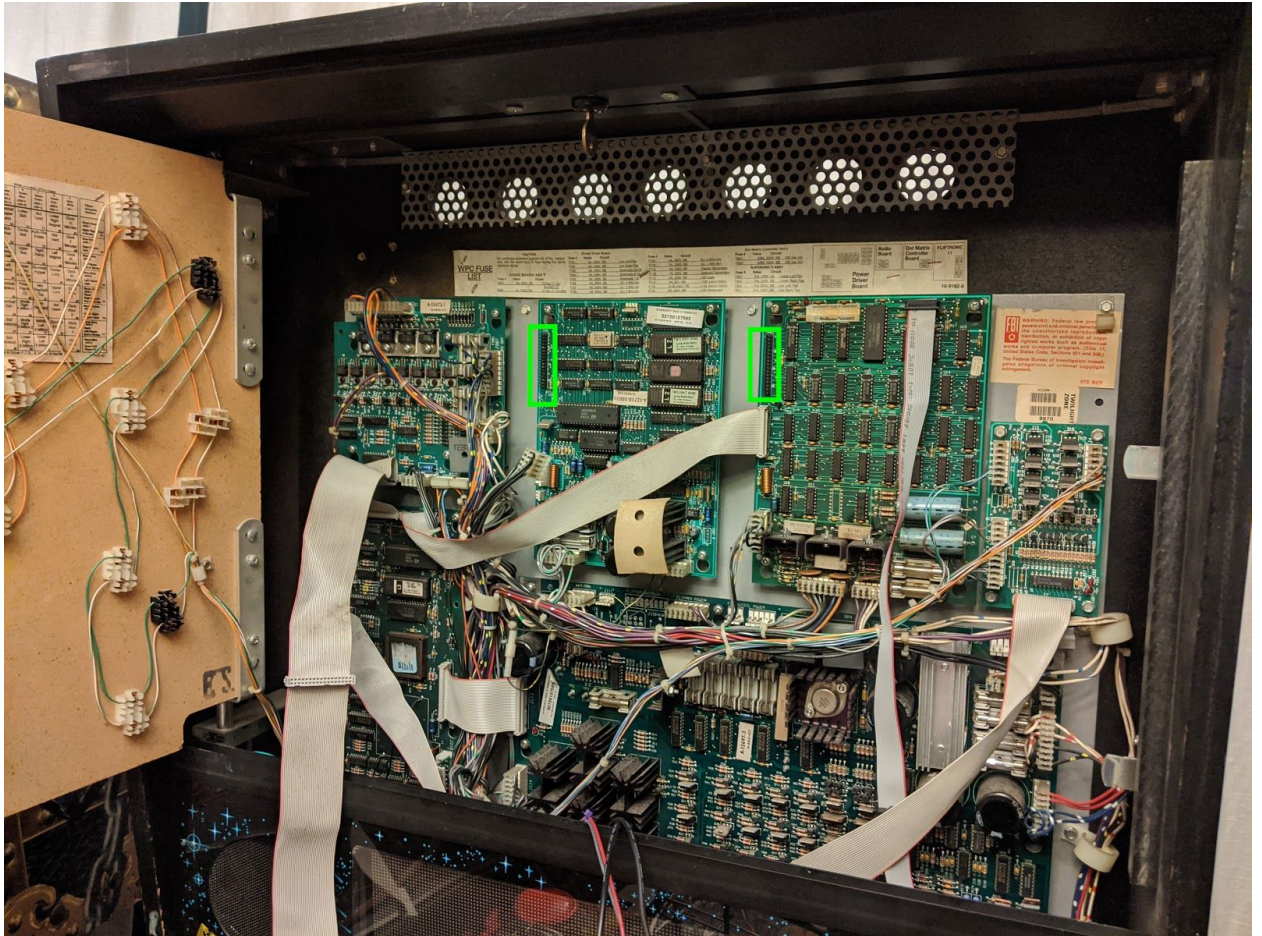
Your backboard display panel impact shield ships with protective film on both sides to prevent surface scratches and dust during shipping.



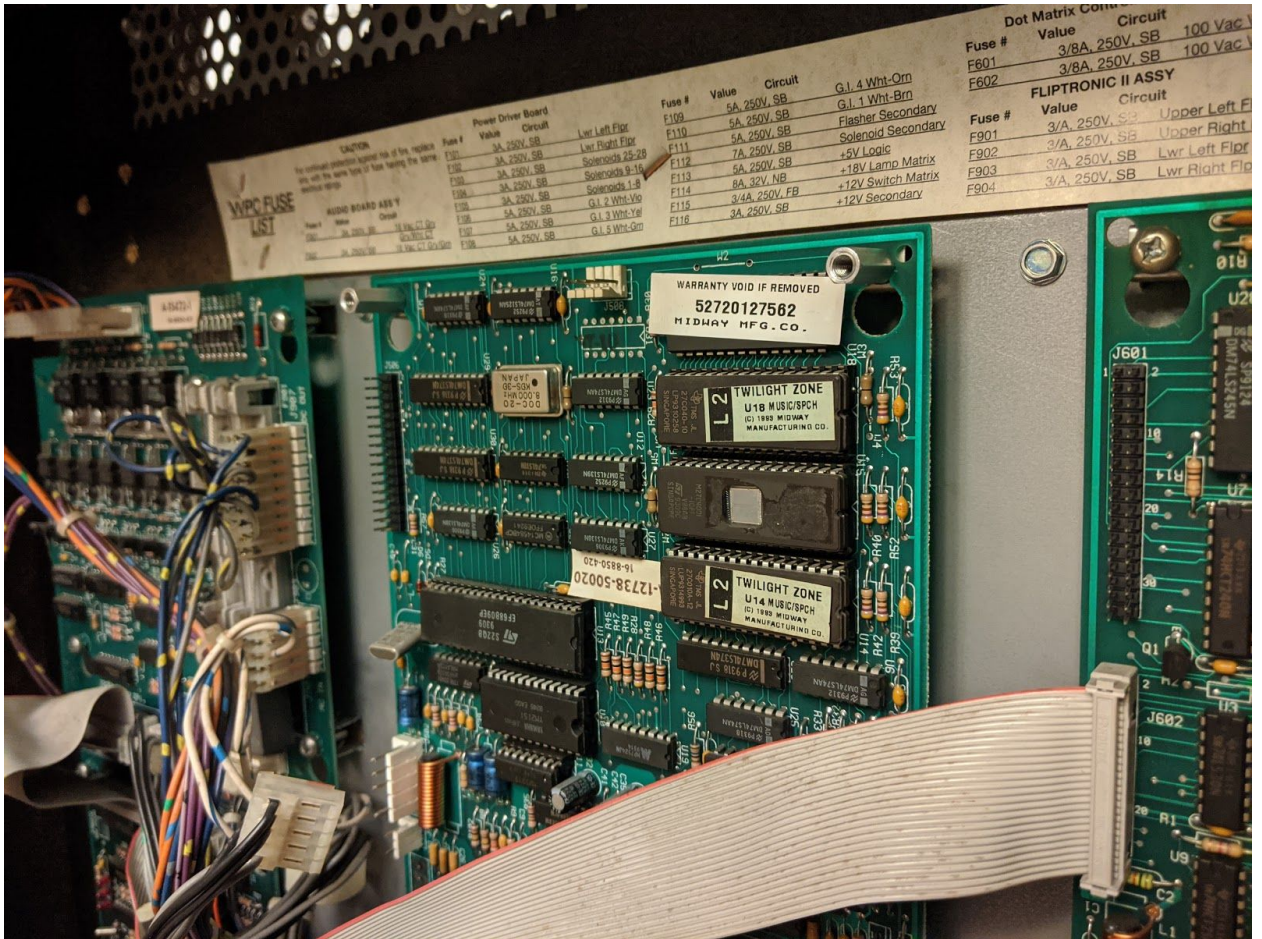
1. Remove the 5 black wood screws securing the impact shield to the backboard
2. Remove protective paper film on both sides of the plastic
3. Secure the impact shield back to the back board using the same screws
BE CAREFUL: Do not over tighten screws as that could lead to cracking!

Step 1: Install The Interactive Controller Card

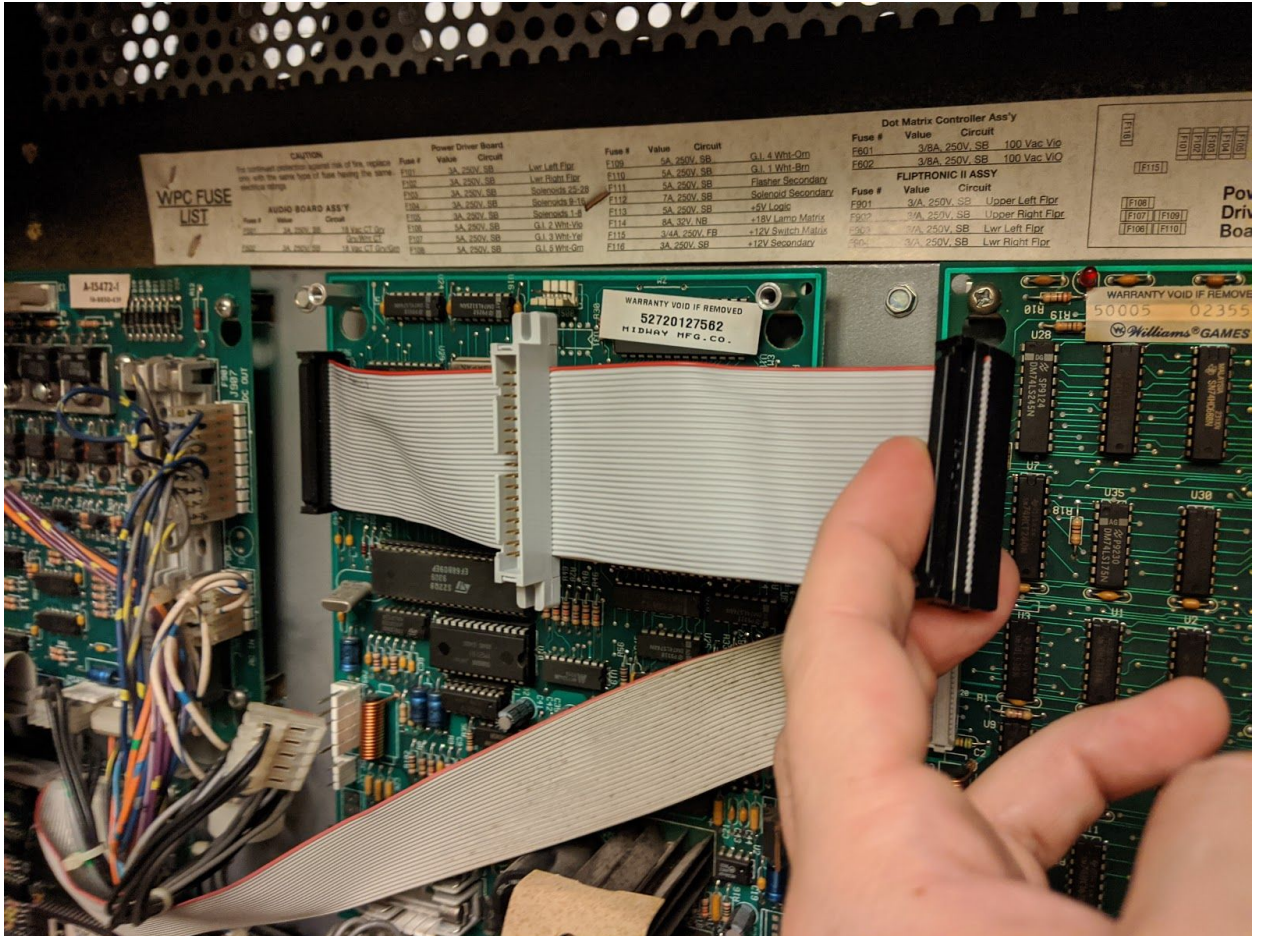
1. Open the game's backbox and unplug the ribbon cable at J601 on the DMD board and J506 on the sound board.



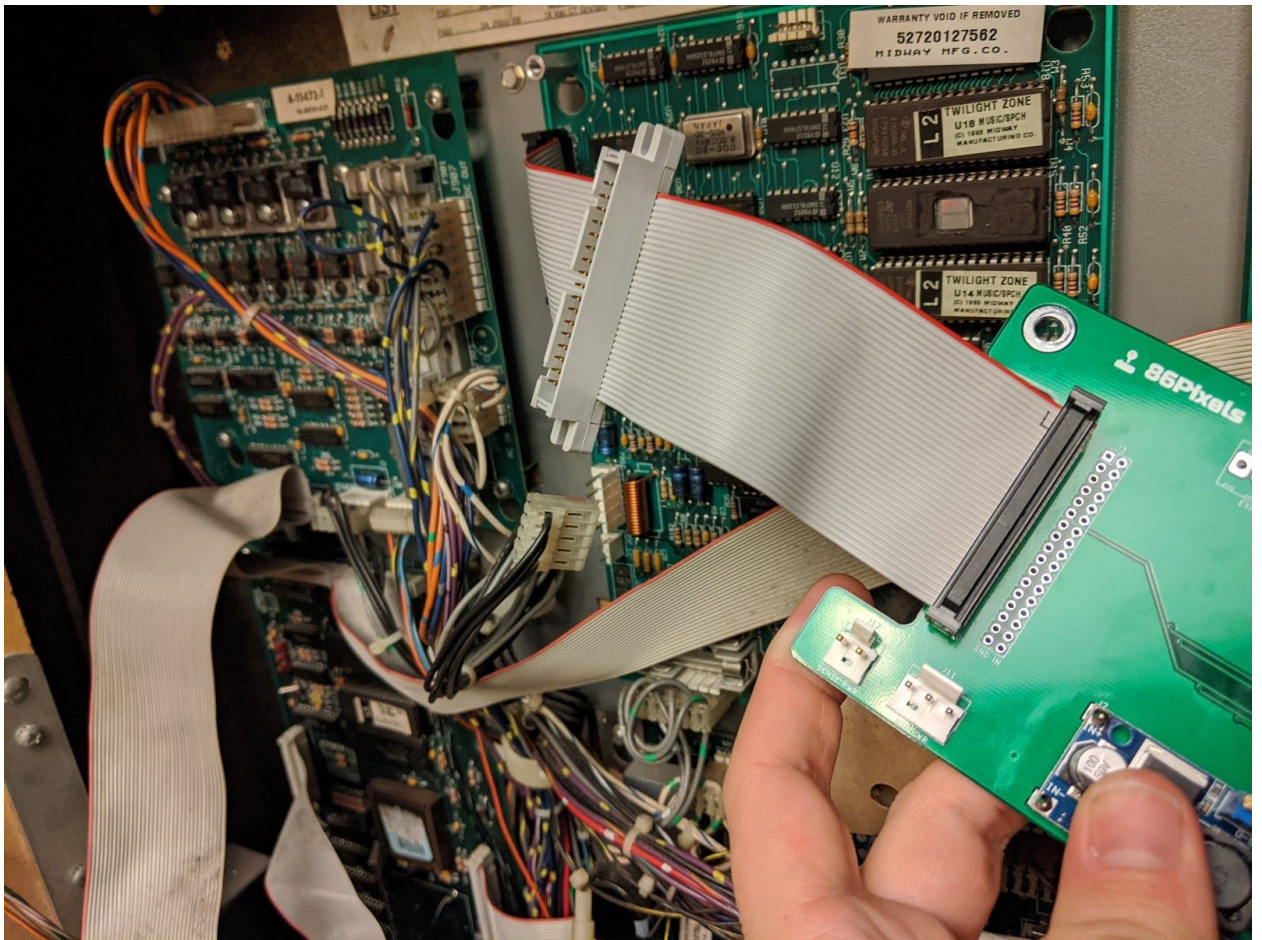
- Remove the existing machine screws at the top of the sound board (center) and replace with the included $\frac{1}{4}$ " aluminum standoffs as shown below



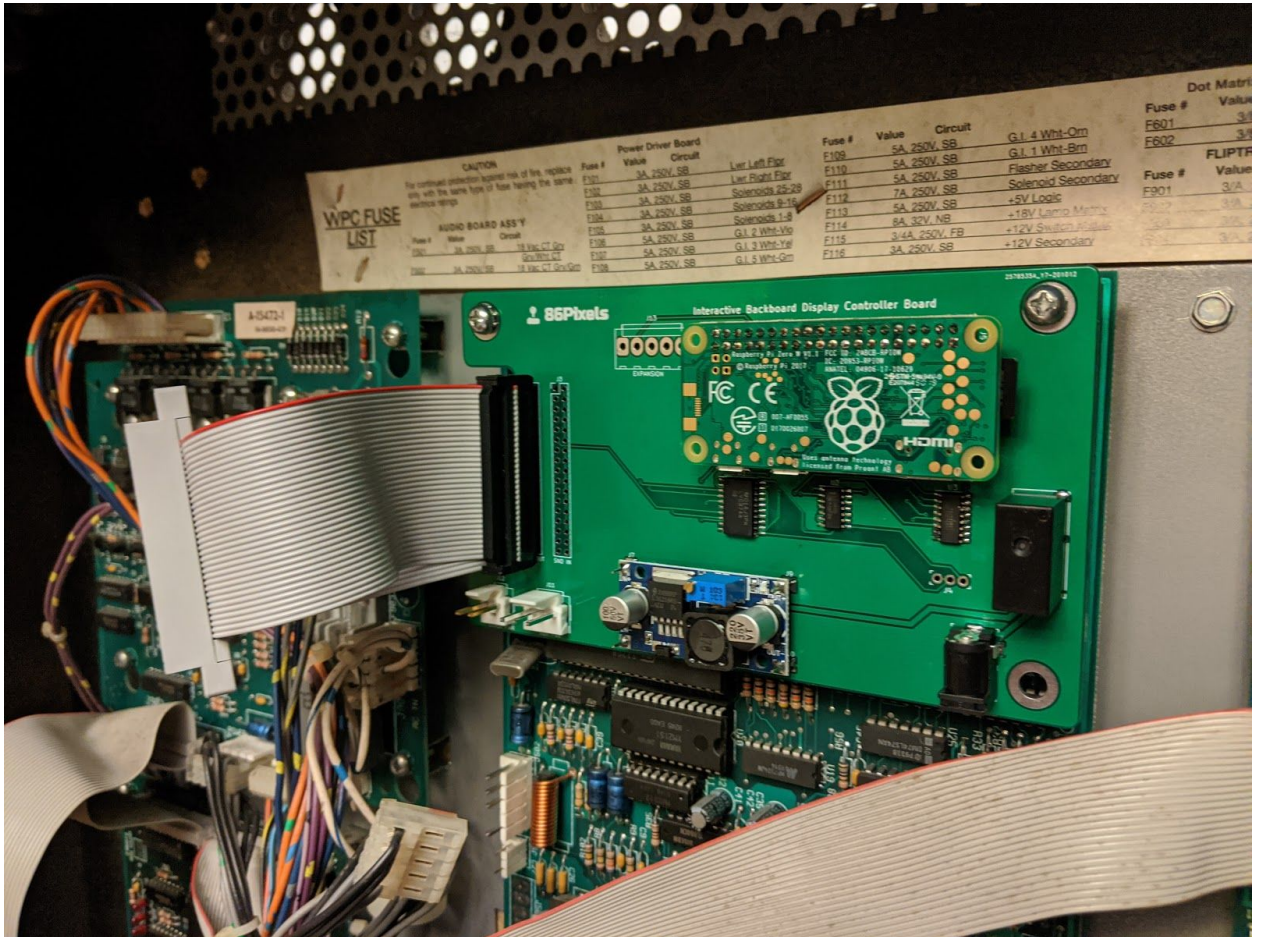
3. Take the included 34 pin ribbon cable adapter and plug it into J506 on the sound board as shown below. The red stripe should be facing up, and the notch in the cable adapter should be pointing to the left of the game.



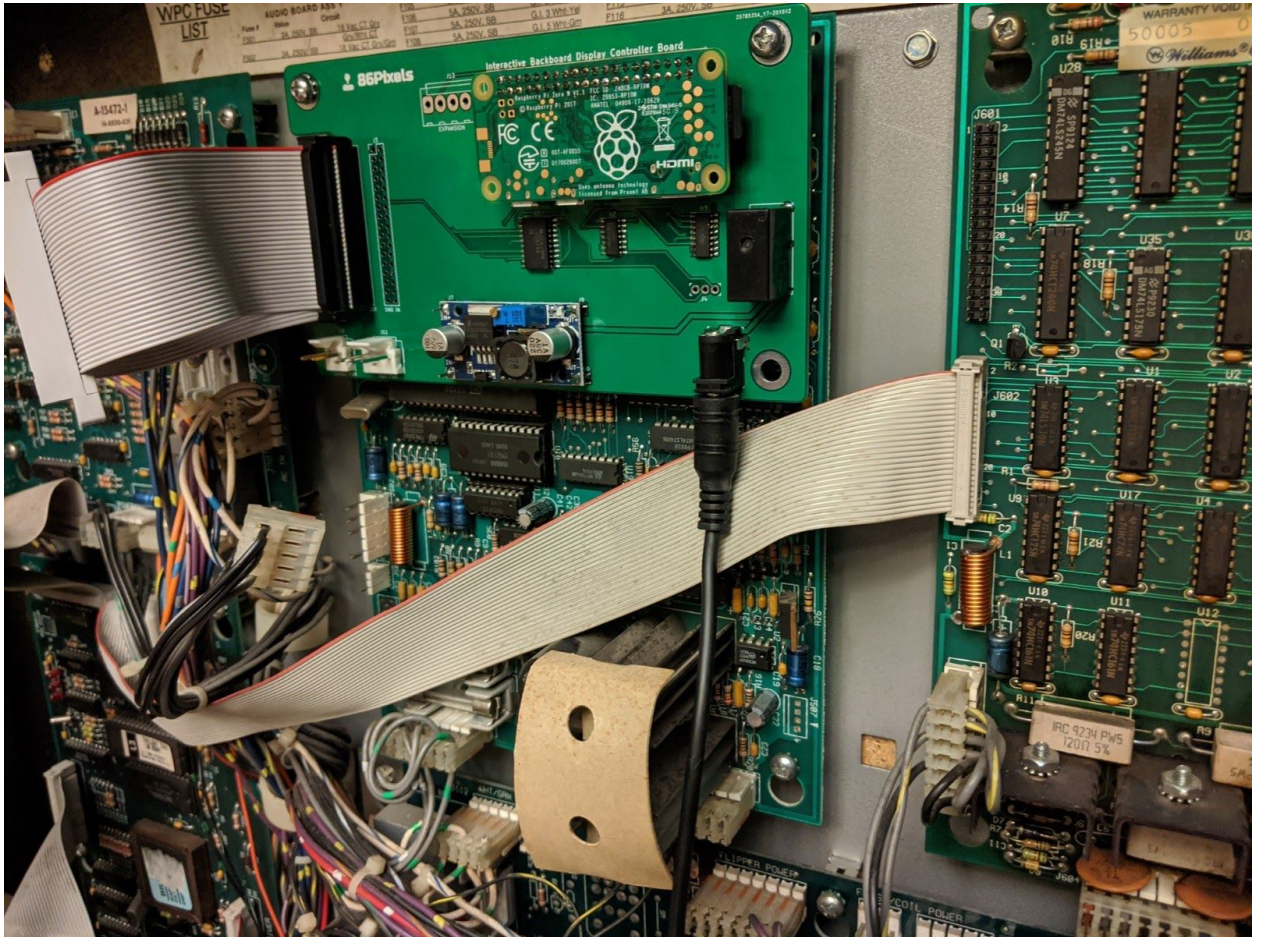
4. Plug the other end of the ribbon cable into the J2 port on the Interactive Display Controller board as shown below



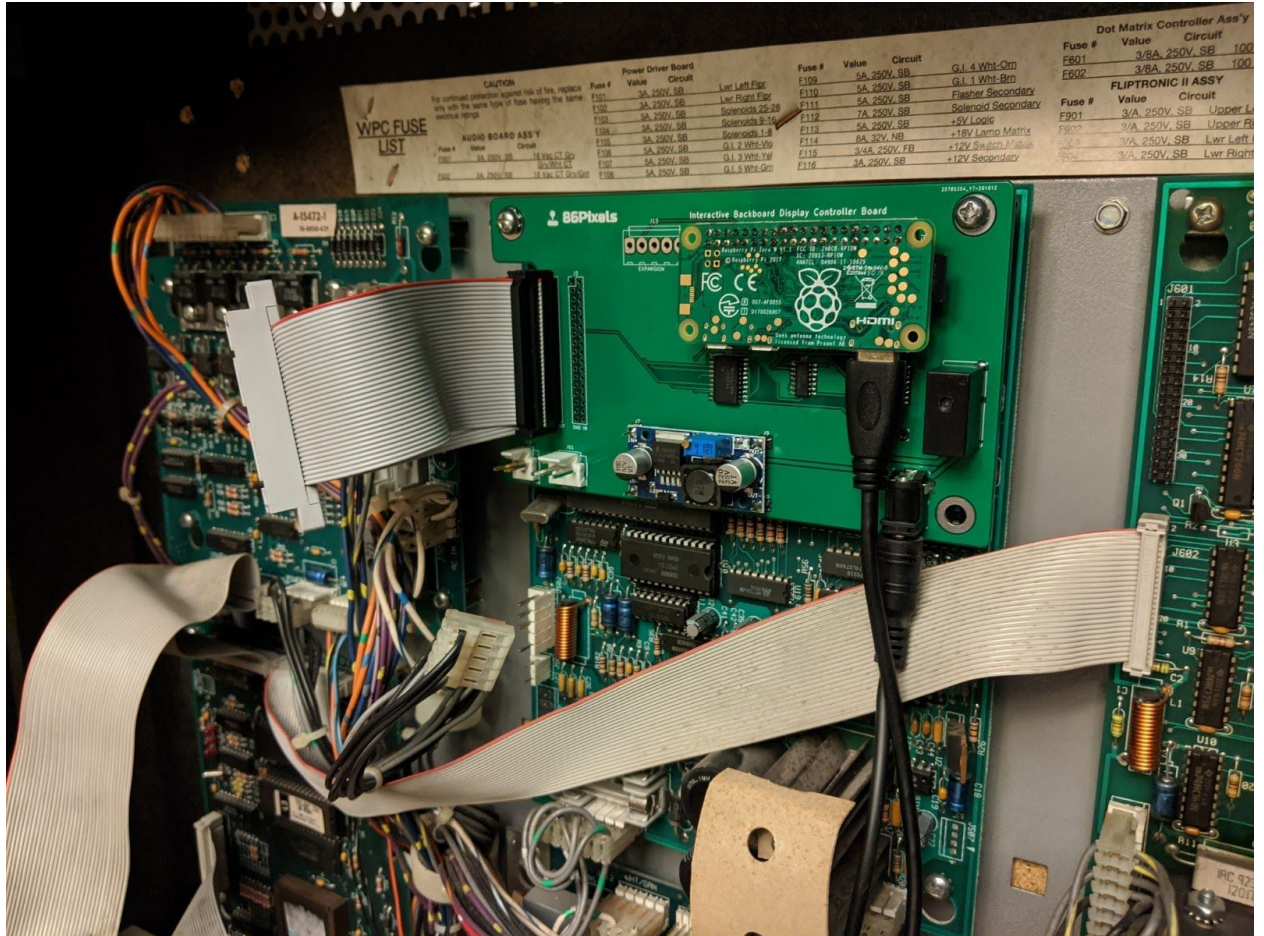
5. Mount the Interactive Display Controller board to the sound board using the two machine screws removed earlier and mounting the board to the standoffs you just installed



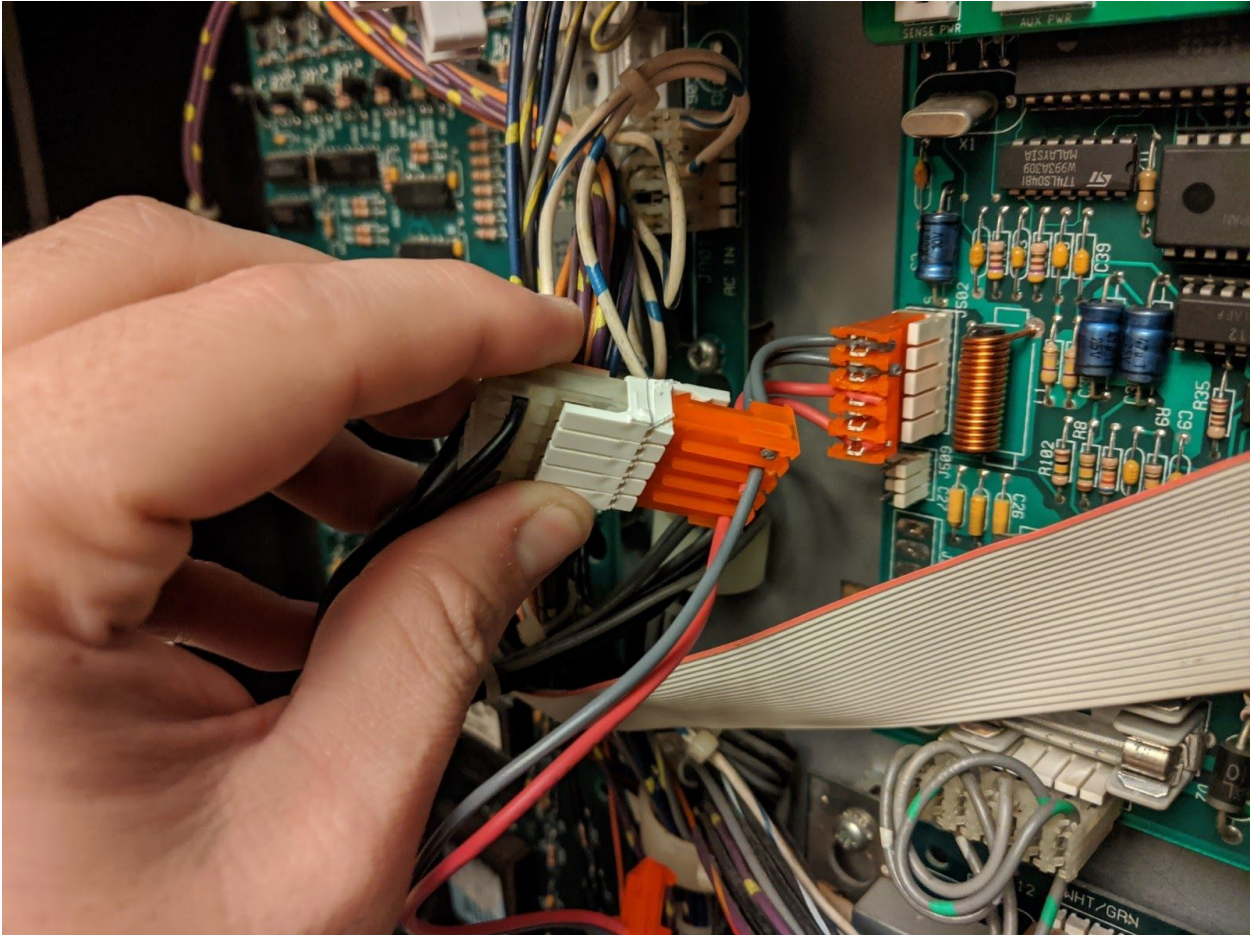
6. Take the DC extension cable and plug the male end into the barrel jack on the Interactive Display Controller board as shown below. Drop the remaining slack down through the backbox wire routing hole and into the cabinet.



7. Take the included mini HDMI cable and insert the mini end into the controller board as shown below. Note that the cable will actually be inserted upside down. If needed, gently remove the raspberry pi from the controller board to make this connection and reattach.



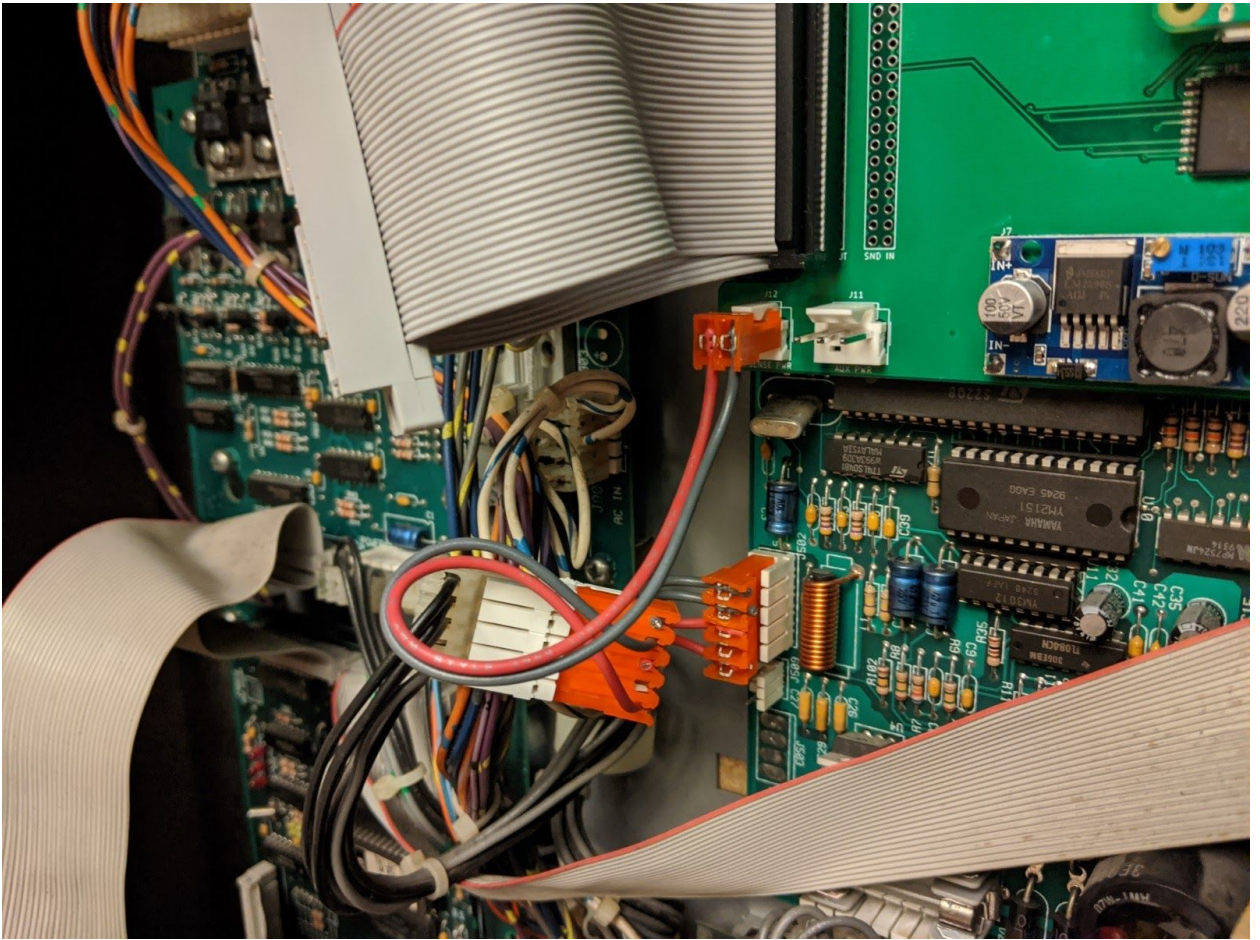
8. Remove the connector at J502 on the sound board and attach the 5 pin voltage sensing cable in its place as shown below. The red wires should be located toward the bottom. Connect the original cable into the Z-connector.



URGENT NOTE ABOUT CABLE ORIENTATION:

Note that some cables may not have ramped connectors, make sure that the connector plugs into the WPC sound board with the black (or gray) cables on top, and red on bottom as shown above.

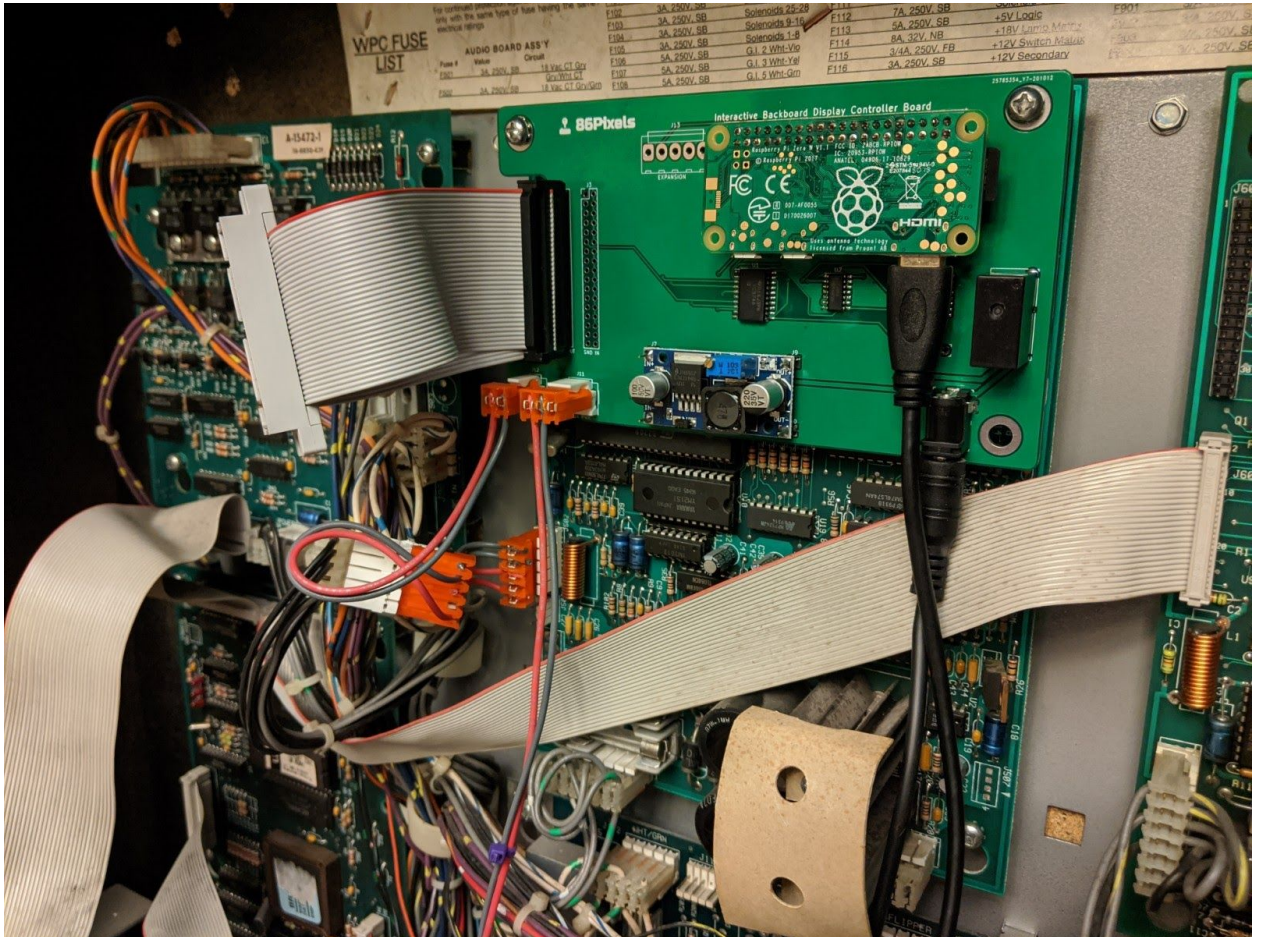
10. Plug the 2 pin voltage sensing cable to the Interactive Display Controller board at J12 as shown below



URGENT NOTE ABOUT CABLE ORIENTATION:

Note that some cables may not have ramped connectors. When connecting the sensing cable shown above, make sure the connector is plugged in so that the red wire is on the LEFT.

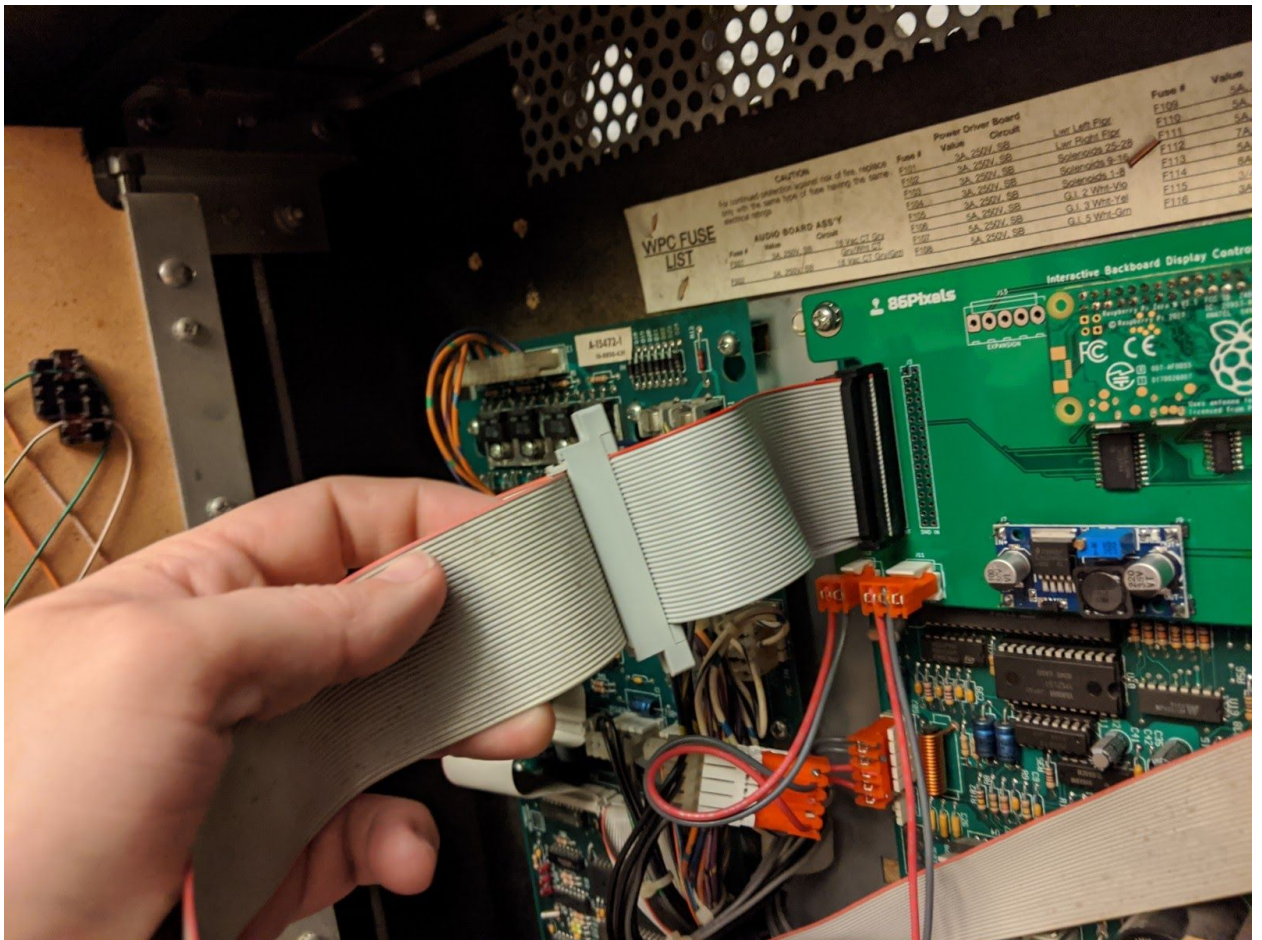
12. Connect the included voltage supply cable to J11 on the Interactive Display Controller board as shown below. Drop the remaining slack through the bottom hole in the backbox and into the cabinet. This will power our display.



URGENT NOTE ABOUT CABLE ORIENTATION:

When connecting the display power cable, make sure the connector is plugged into the controller board so that the RED wire is on the LEFT, and the black (or gray) wire is on the RIGHT.

14. Reattach the sound data ribbon cable to the 34-pin ribbon cable adapter as shown below. Reconnect the original ribbon cable to J601 on the DMD board.



Step 2: Unmounting The Existing Backboard

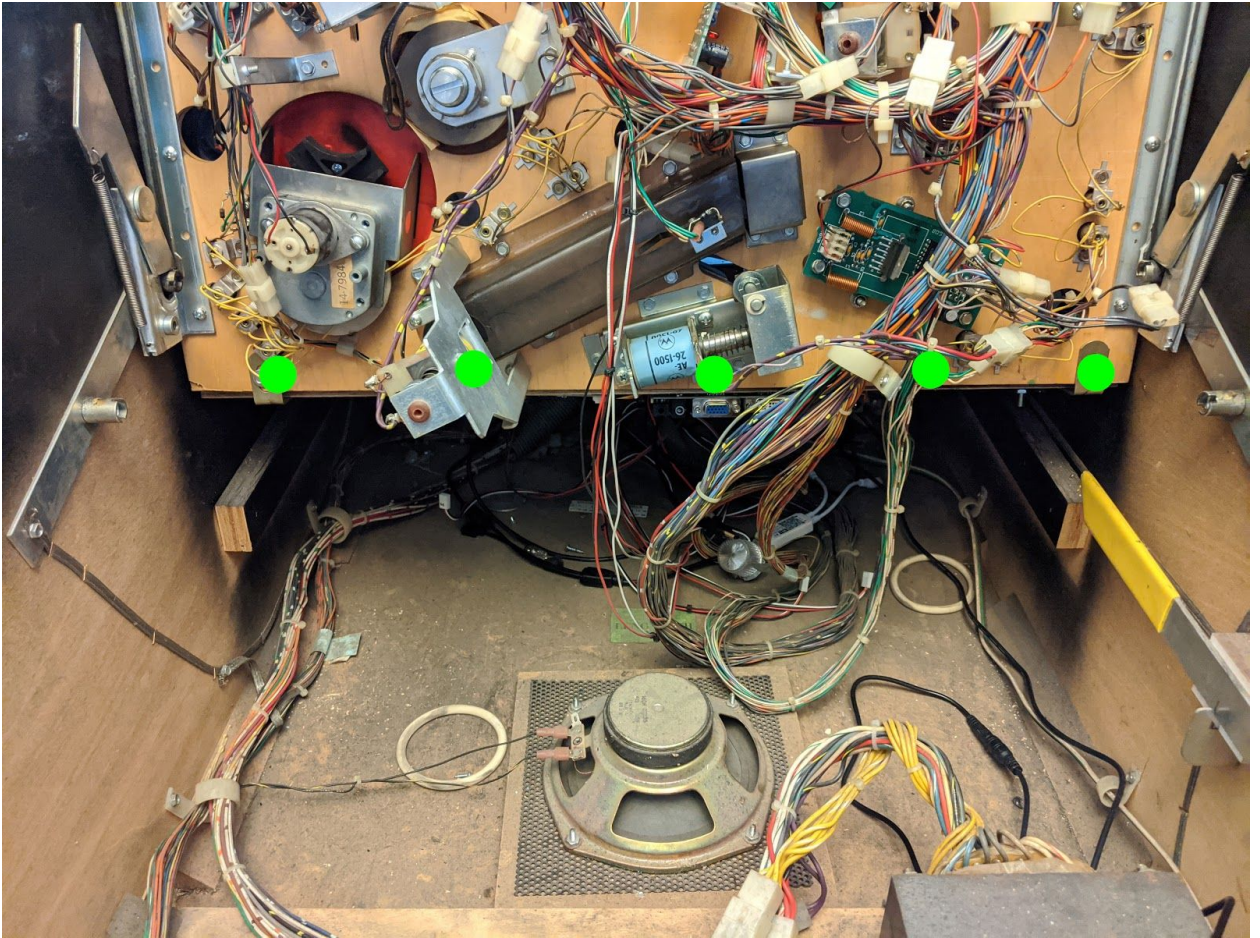
CAUTION: You will be powering components of this mod with the game's service outlet (if available) which contains live AC voltages. You must power off and unplug the game prior to installing this mod.

The existing backboard in WPC machines is secured to the playfield via five phillips head wood screws at the back underneath the playfield.

1. First, place the playfield into the upright service position as shown below (be sure to remove the balls from the trough first)



2. Locate the 5 backboard screws at the back of the playfield as shown below:

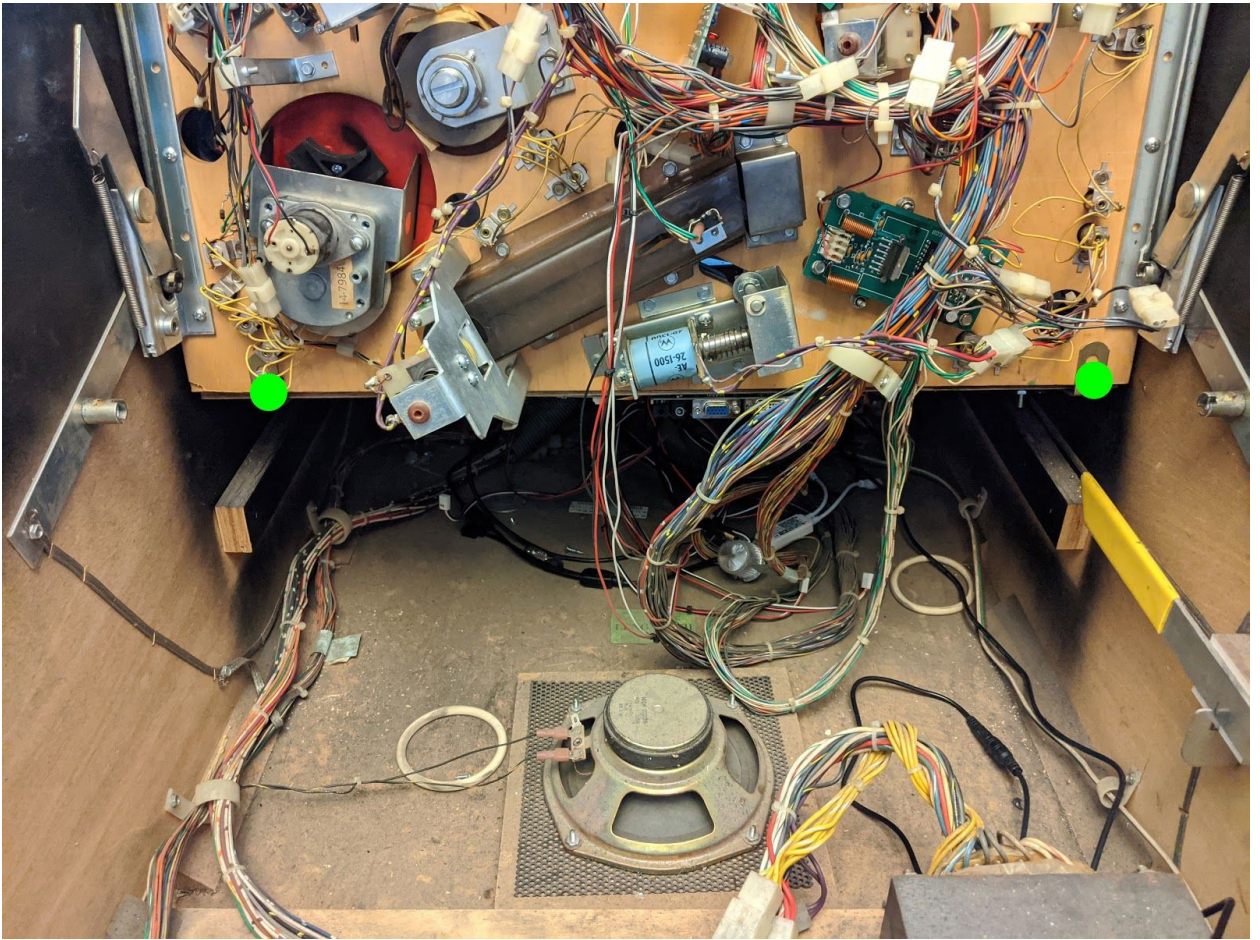


Use a phillips head screwdriver to remove the 5 screws. Hold the backboard when removing the final screw to mitigate the risk of the board falling into the cabinet.

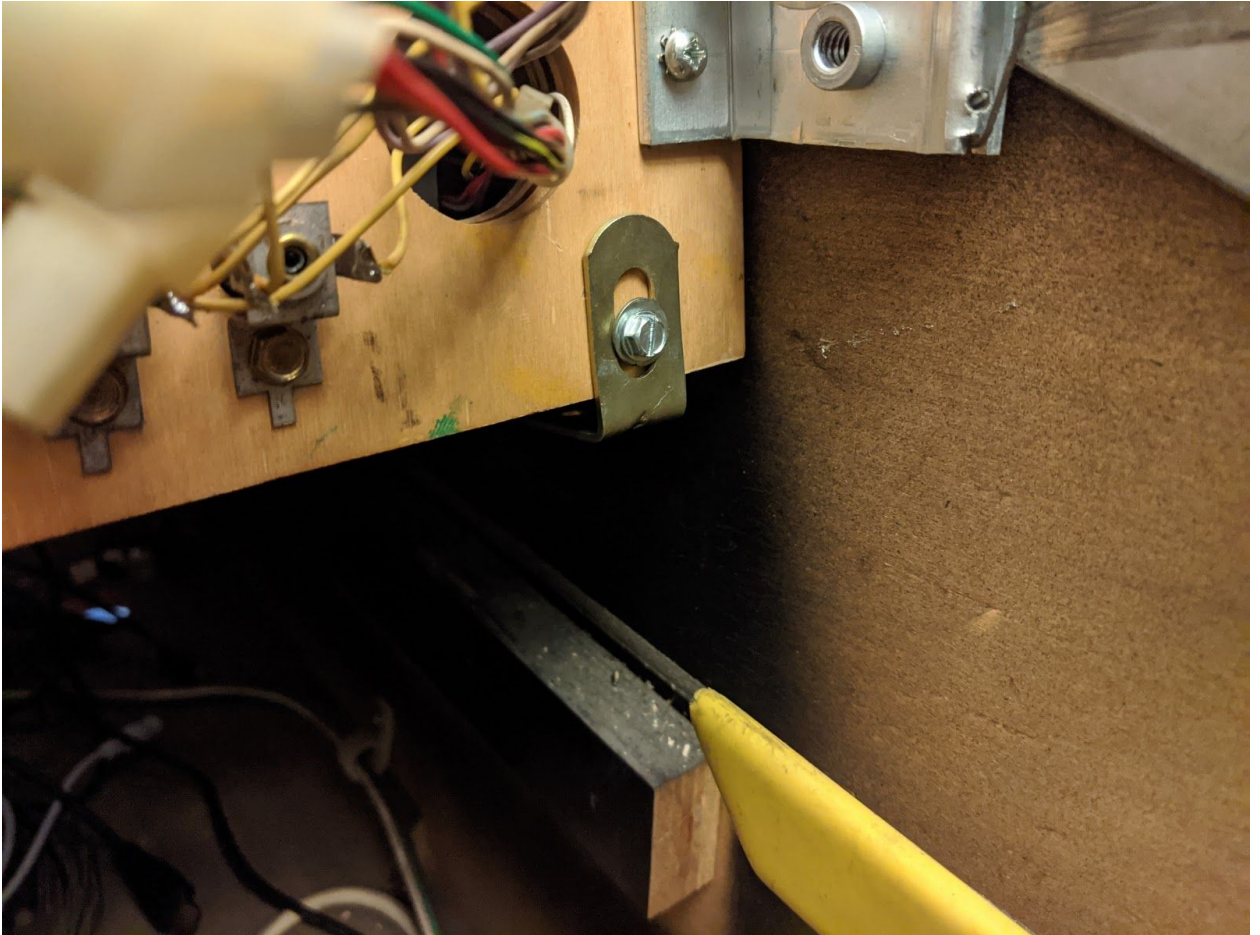
Step 3: Install Backboard Mounting Brackets & Power

As opposed to the 5 screws that drill into the backboard through the playfield, we've simplified the process by using two angle (L) brackets to secure the backboard to the playfield using the existing screw holes.

1. Locate the far left and right mounting holes at the rear of the playfield shown in green below



2. Use 2 of the ½" #10 pan-head phillips wood screws to secure the L brackets to the far left and far right holes as shown below. The slotted end of the bracket should be on the bottom side of the playfield. Do not overtighten the bracket screws!



Note: The slots on the brackets allow for adjustments to backboard display positioning. Do not position the backboard too far back into the cabinet as it can (and most likely will) collide with the game's wire harness running to the backbox.

3. With the brackets secured, it is time to install the DC power supply.

Plug the included power supply into the game's service outlet as shown below. If no service outlet is available, an external outlet will need to be used.



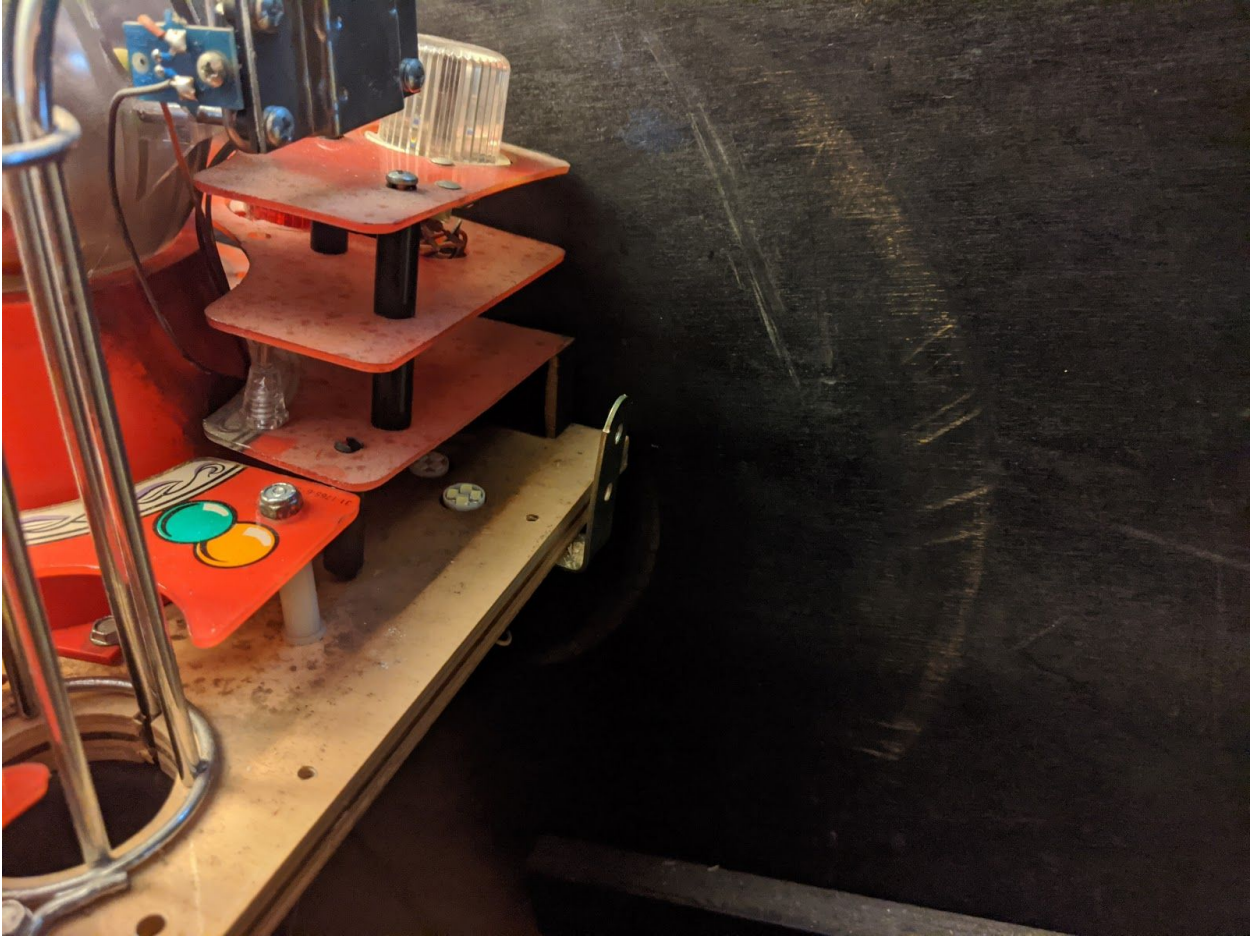
4. Plug the DC power adapter barrel plug into the female end of the extension cord you dropped through from the backbox previously.

Step 4: Install the Backboard Display

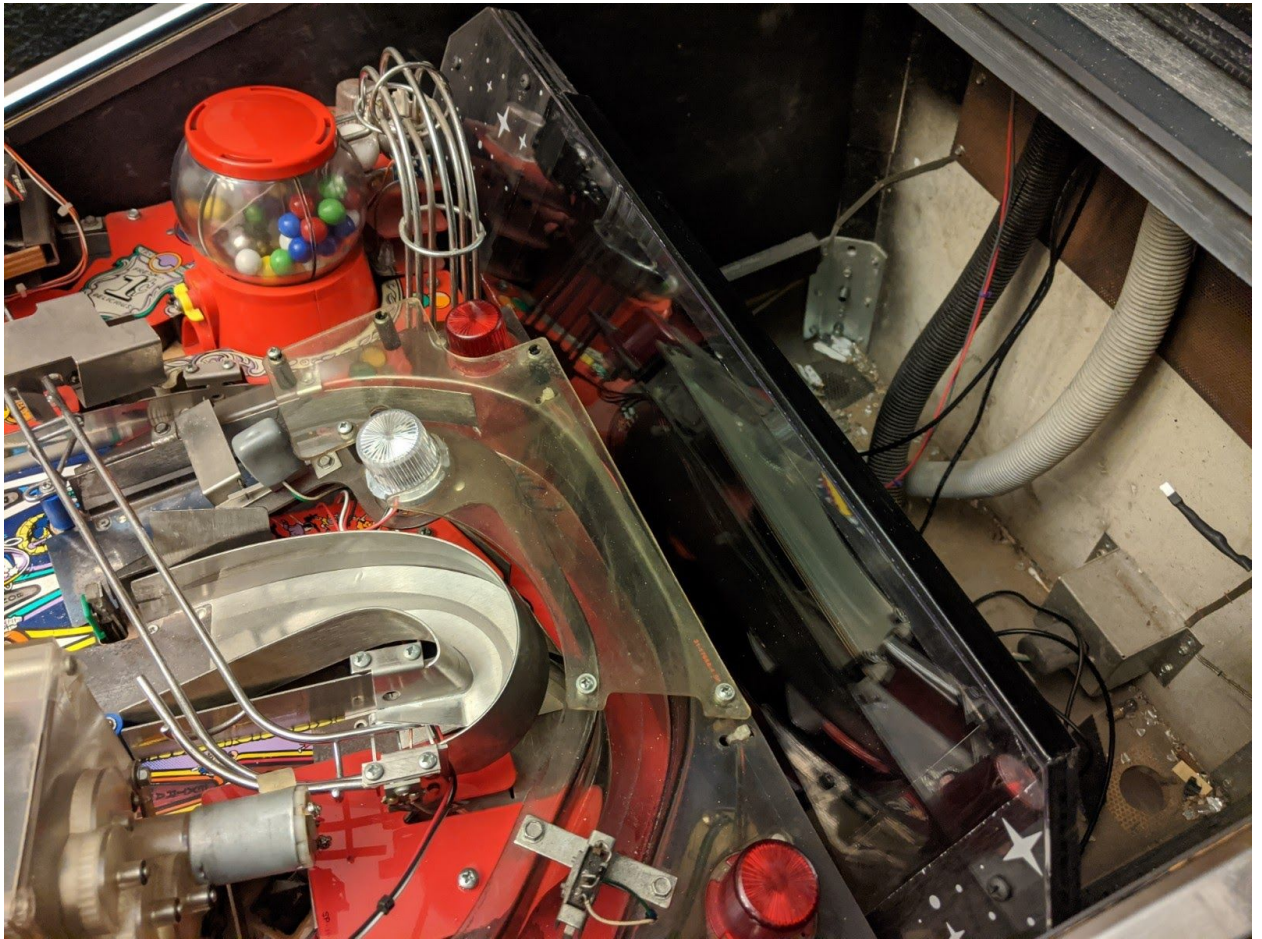
1. Lower the playfield into the lower service position (down, but resting on the front of the cabinet)



2. You should see the brackets as shown below



3. Gently lower and rest the backboard display against the brackets as shown below.

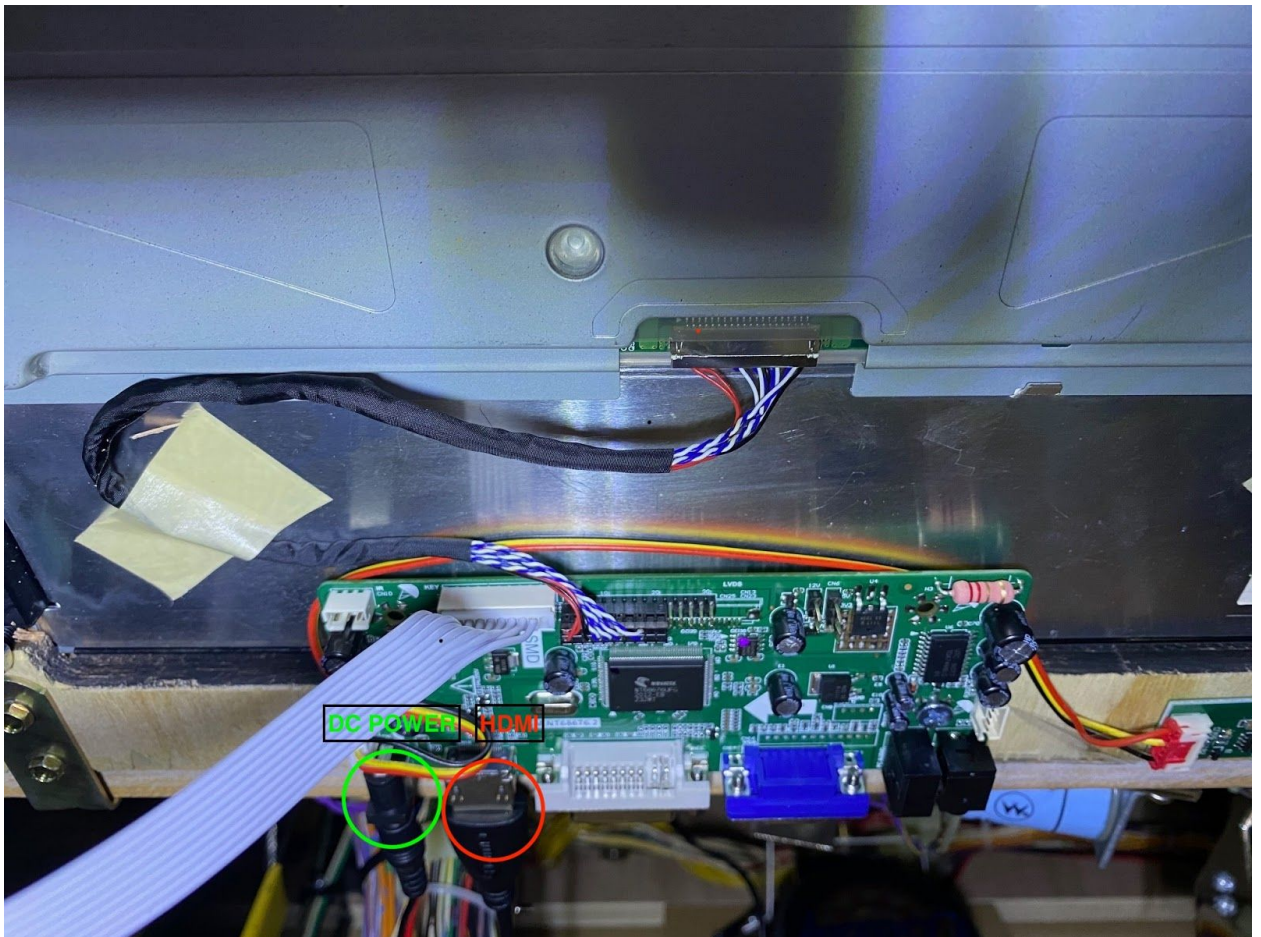


4. Check to make sure the alignment of the board is centered from the cabinet walls. With an electric screwdriver with either a ¼" nut driver bit or a flat head bit, drive both screws into the rear of the display panel via the top hole of the mounting bracket.



5. Check the alignment of the display. Slight adjustments can be made by slightly loosening the screws on the L brackets beneath the playfield.

Afterward, connect the HDMI cable and the male DC power cable that you dropped into the cabinet from the backbox in previous steps. These connectors are all the way to the right on the board behind the display.



6. Gently slide the playfield back into the cabinet and check the alignment again. If everything is good, proceed to power the game on!

