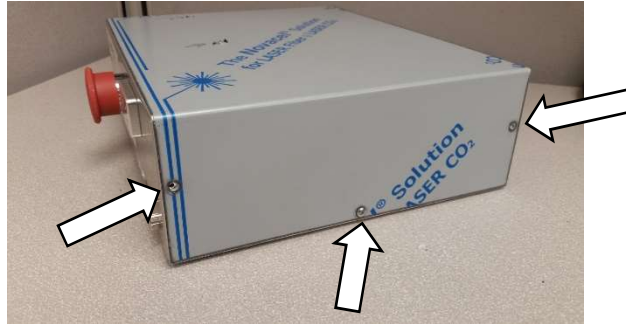


## 4th Axis Driver Card Installation Steps

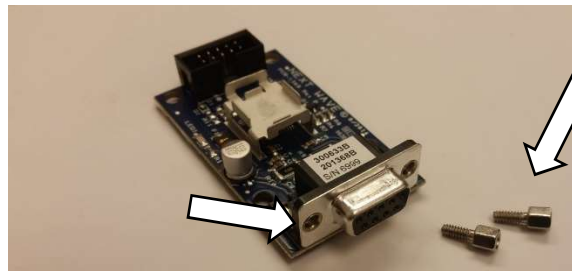
Install the 4<sup>th</sup> axis driver card into the optional expansion port of the CNC Shark HD 4.

Follow the steps and figures below to ensure the driver card is installed properly.

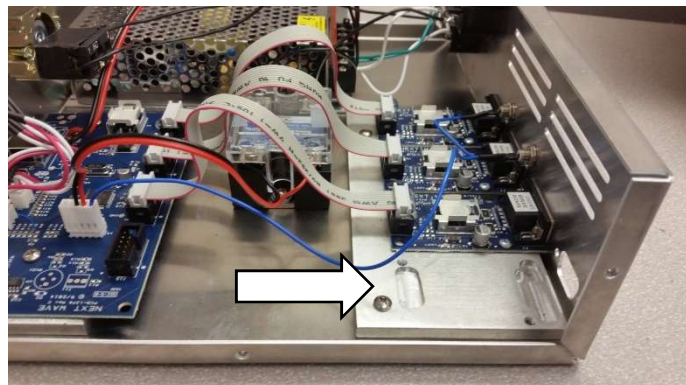
1. Ensure the Shark HD4 controller is powered OFF and that **ALL** cords/cables are removed from the controller.
2. Use a Phillips screwdriver to remove the 6 screws (3 on each side) from the controller so the top cover can be removed freely.



3. Remove the 2 hex bolts with a 3/16<sup>th</sup> nut driver from the front of the driver board.



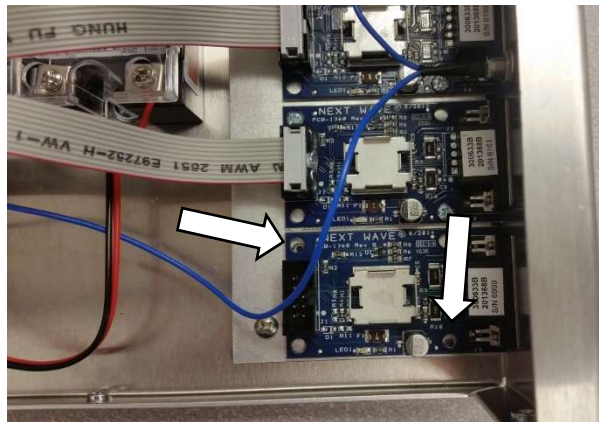
4. Remove the sticker that reads, "OPTIONAL EXPANSION PORT" on the controller, in order to uncover the 4<sup>th</sup> axis driver board port.
5. Place the 4<sup>th</sup> axis driver board on the aluminum heat sink, adjacent to the other 3 driver boards.



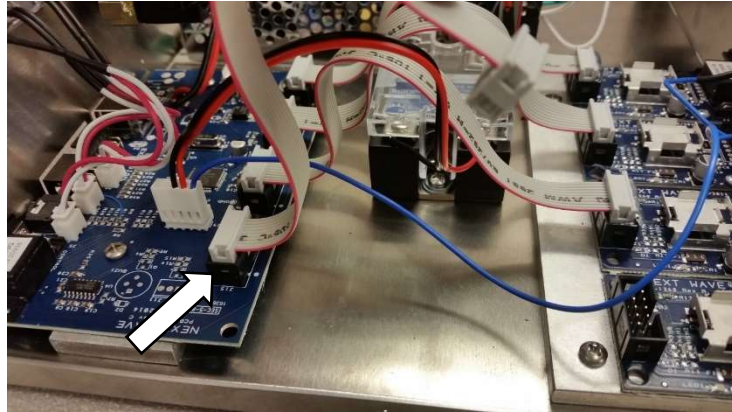
6. Reattach the 2 hex bolts to the 4<sup>th</sup> axis driver board, securing it to the back of the HD4 controller. DO NOT fully tighten the 2 hex bolts.



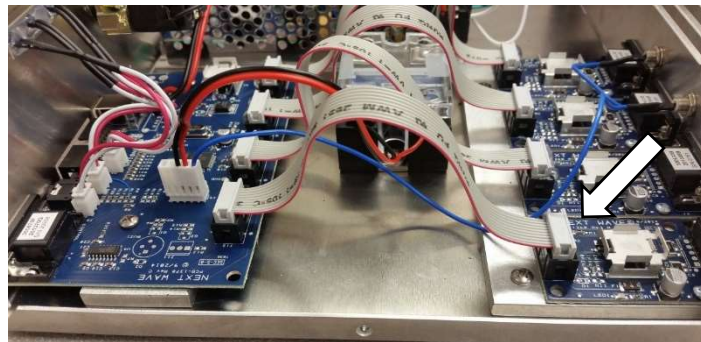
7. Use the 2 included screws to attach the 4<sup>th</sup> axis driver board to the aluminum heat sink using the 2 screw holes. Once these screws are in place, fully tighten the 2 screws and the 2 hex bolts attaching the 4<sup>th</sup> axis driver board to the back of the HD4 controller. (Optional: add a dab of heat transfer compound in between the driver board and heat sink)



8. Attach one end of the ribbon cable to the circuit board opposite the driver board. Push down gently on the end of the ribbon cable to affix it to the circuit board.



9. Attach the remaining end of the ribbon cable to the driver board. (Optional: add a drop of hot glue using a hot glue gun, to each end of the ribbon cable connection)



10. Place the top cover back on the HD4 controller and reattach the 6 screws.