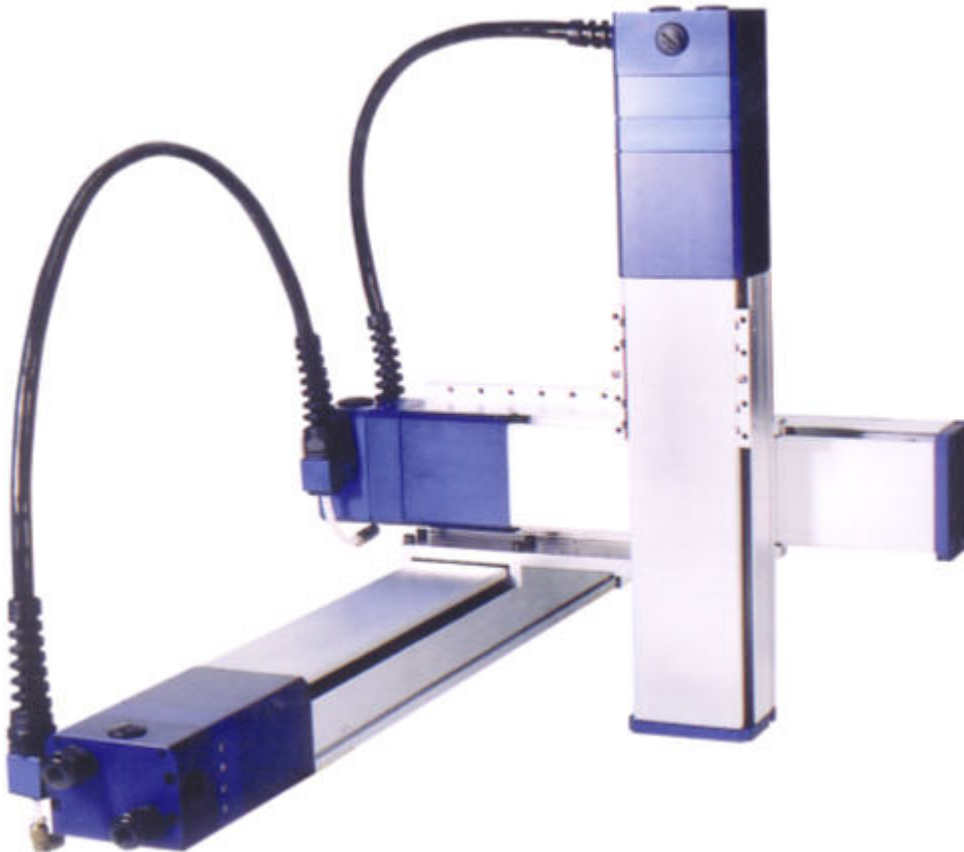


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Smart Linear Actuator

Replacing Motor Instructions

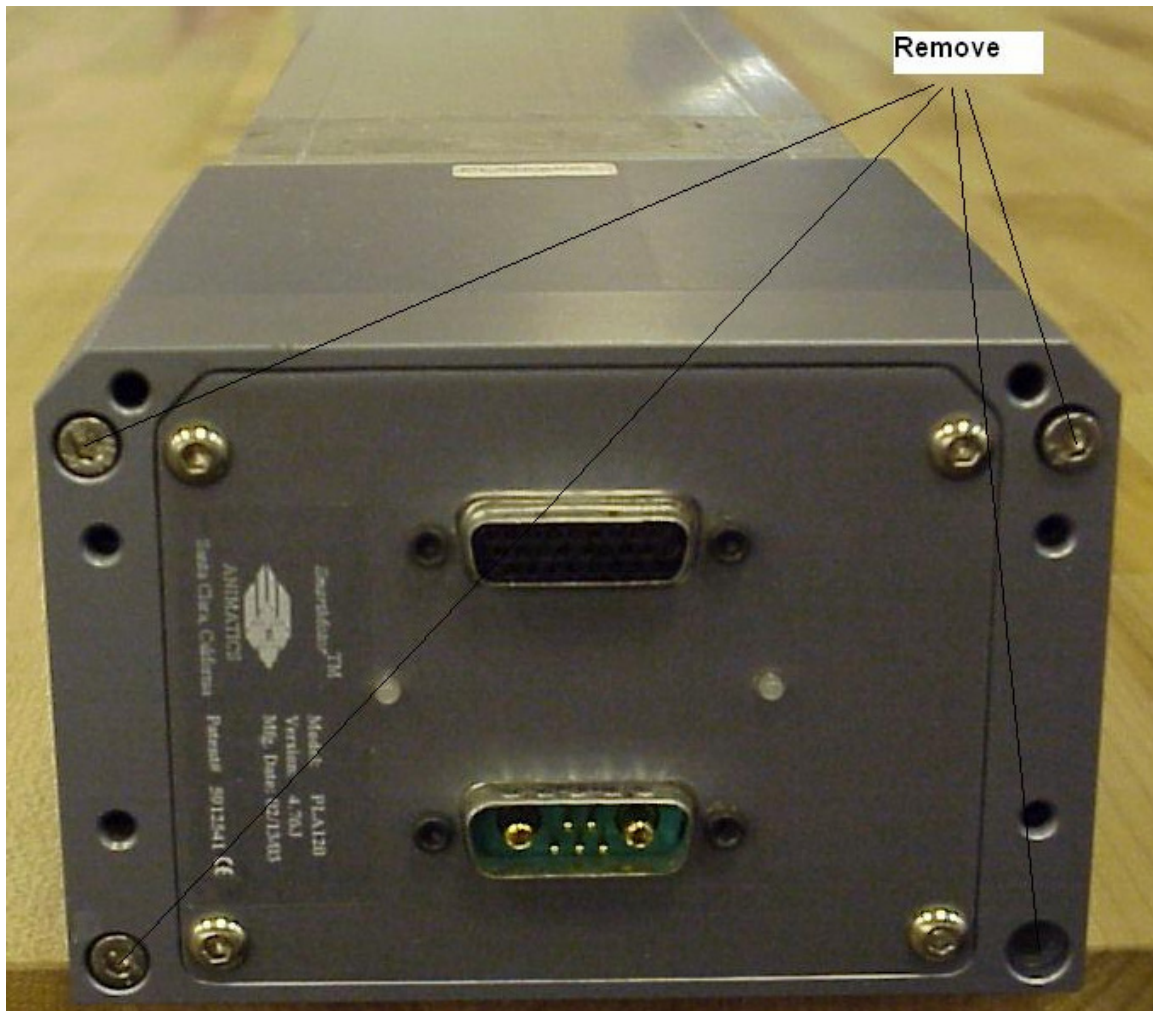


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This document provides the instructions for removing the servo motor from the SLA unit. The permanent magnets bonded to the shaft of the ball screw that made up the stator part of the motor are assumed to be in good condition. Follow the instructions below to remove the motor housing (stator) from the slide.

Step 1:

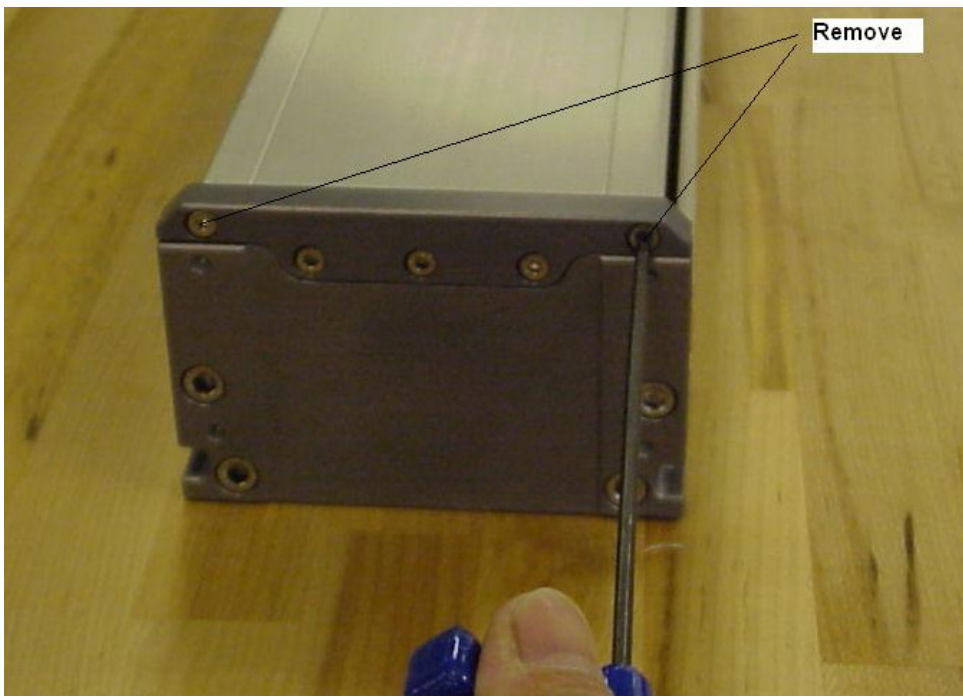
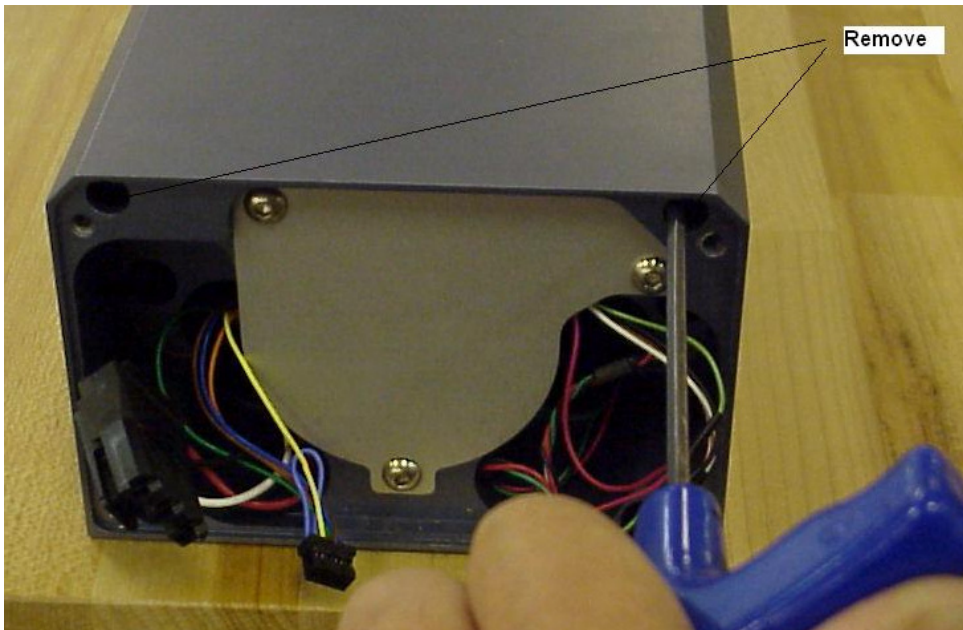
- Remove the four screws that connect the Smart Motor Module to the slide
- Unplug all the electrical connectors between the Smart Motor Module and the motor housing (DO NOT PULL THE CONNECTORS OUT BY PULLING ON THE WIRES!!!)



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Step 2:

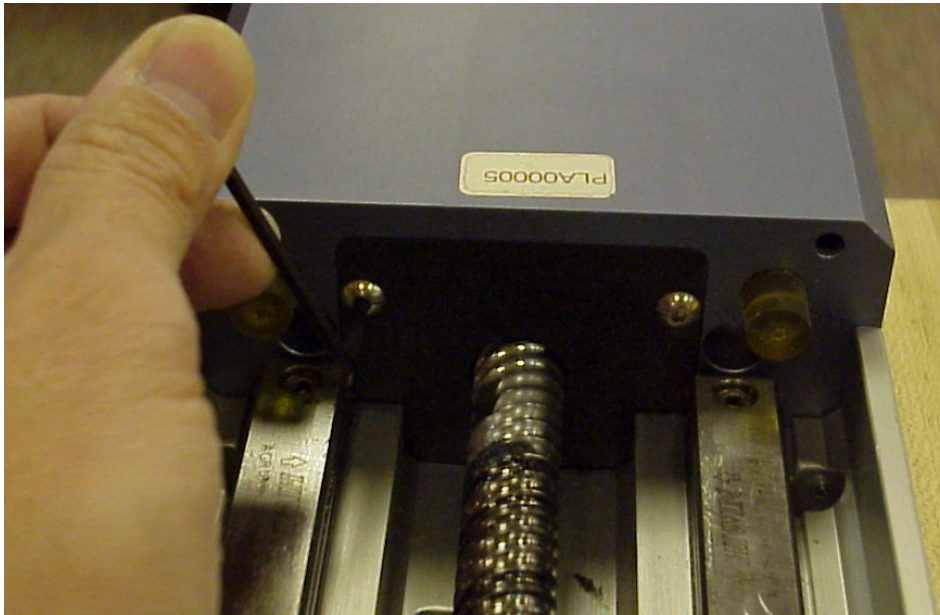
- Remove the slide cover by removing the two screws at the motor end and the other two at the rear end of the slide



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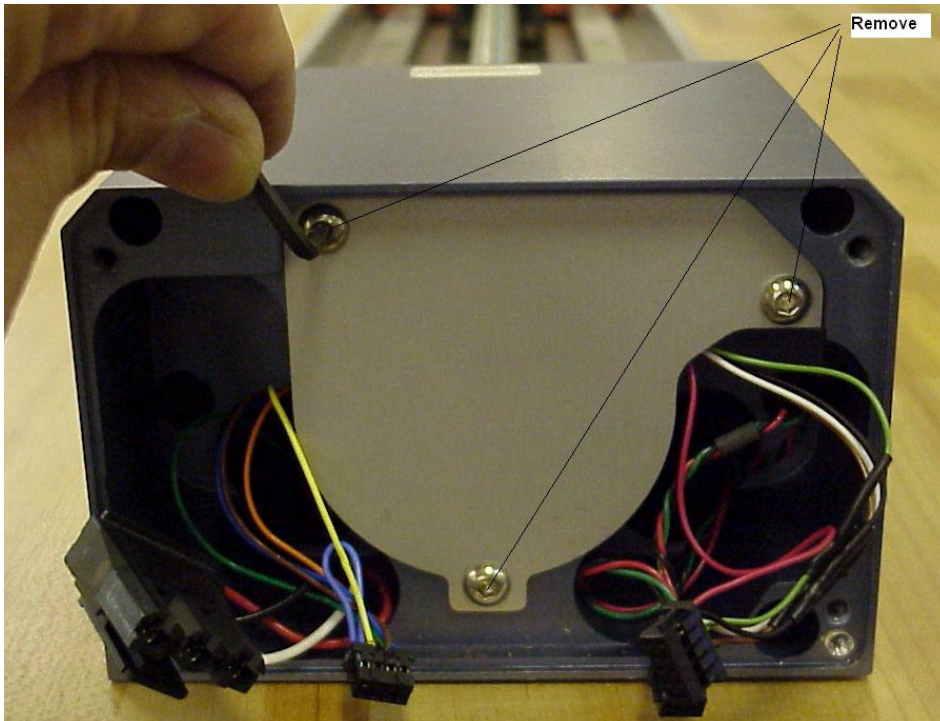
Step 3:

- Carefully pull the limit sensor connectors back to the slide base side



Step 4:

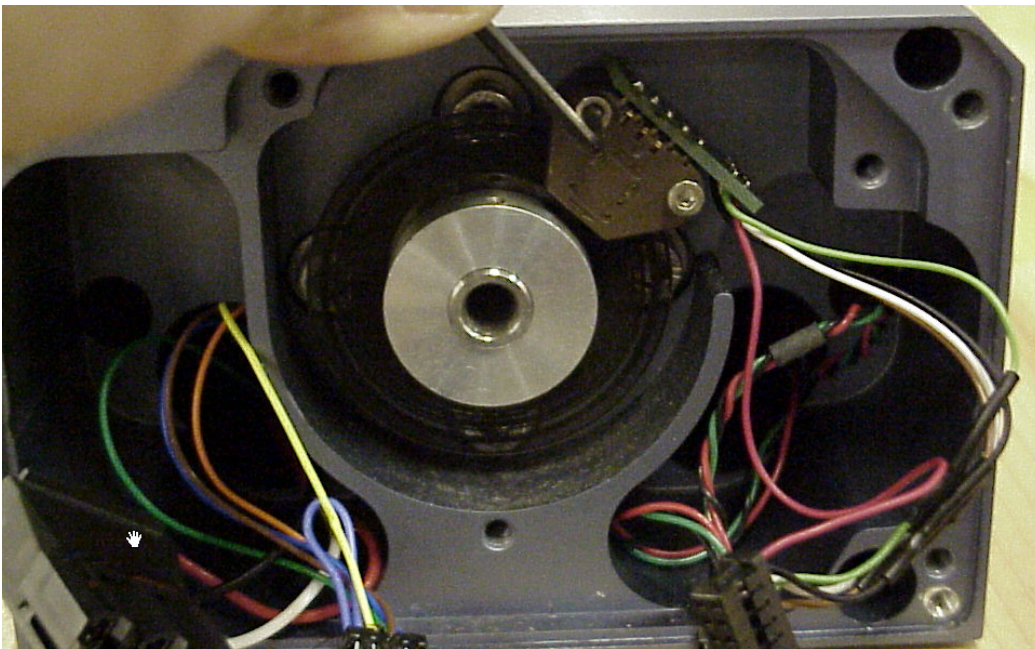
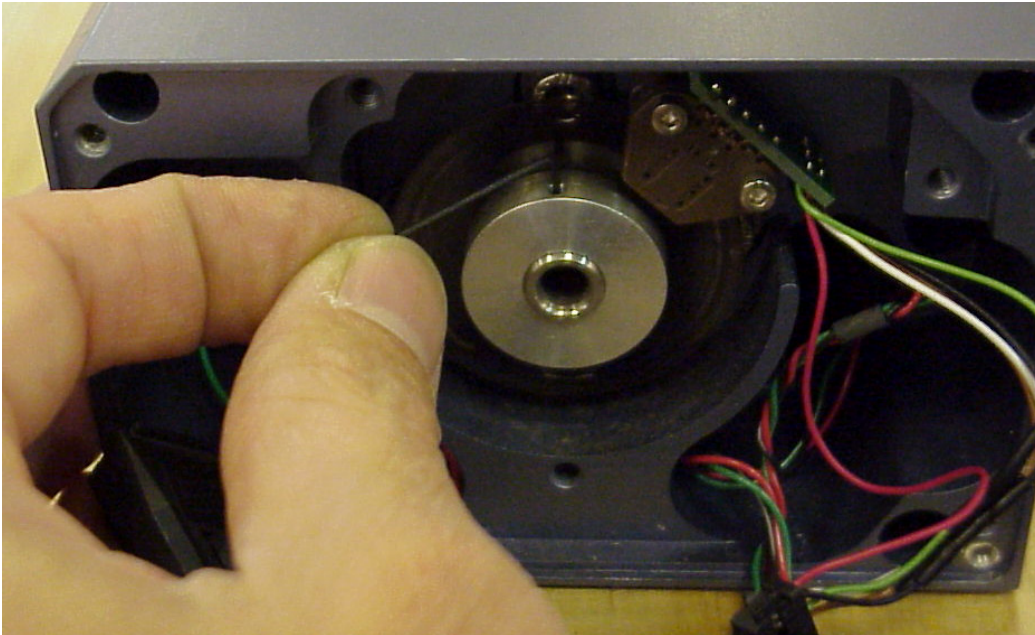
- Remove the encoder cover plate



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Step 5:

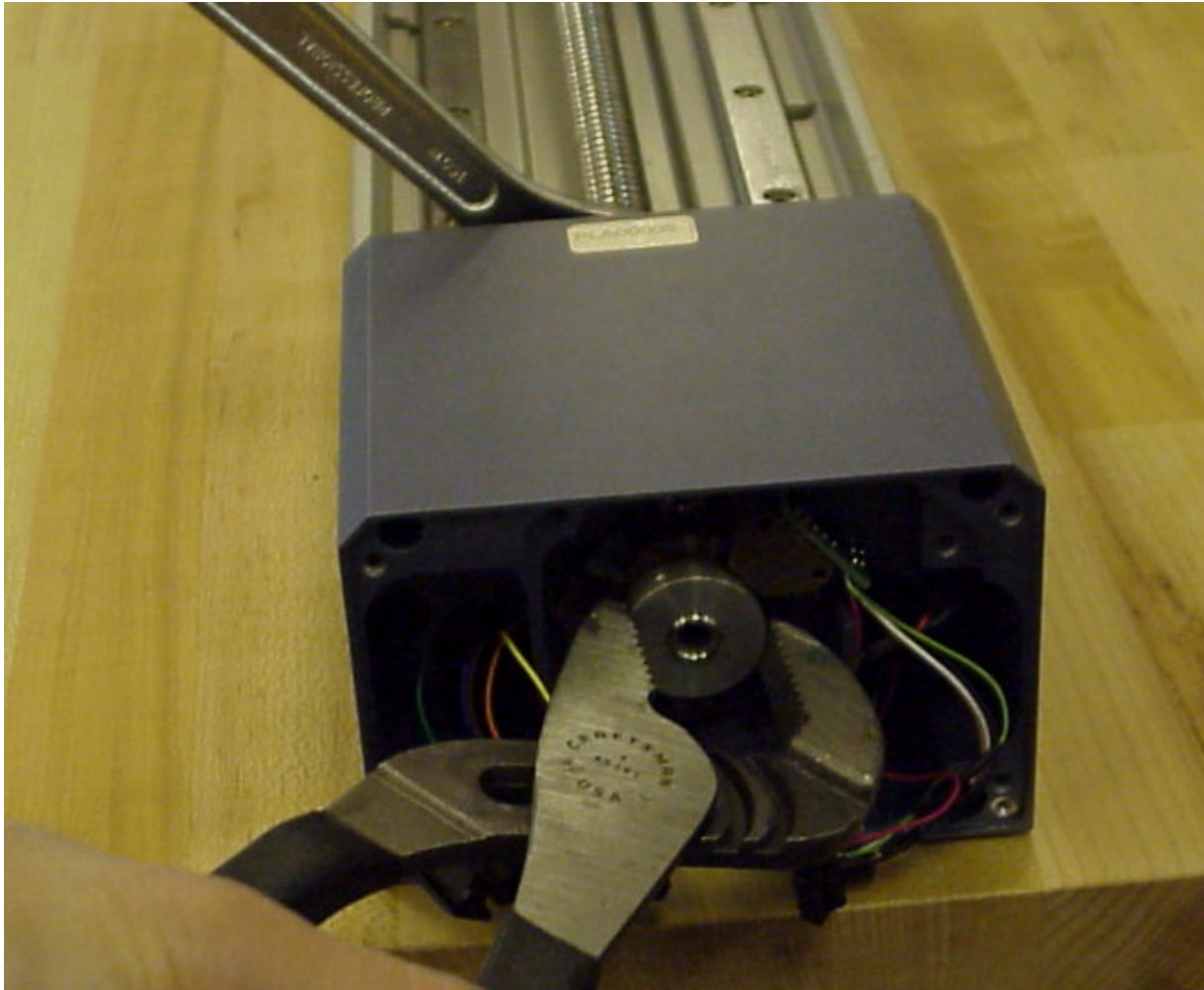
- Loose the set screw that holds the encoder disc to the ballscrew shaft
- Remove the two screws that hold the encoder module to the motor housing



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Step 6:

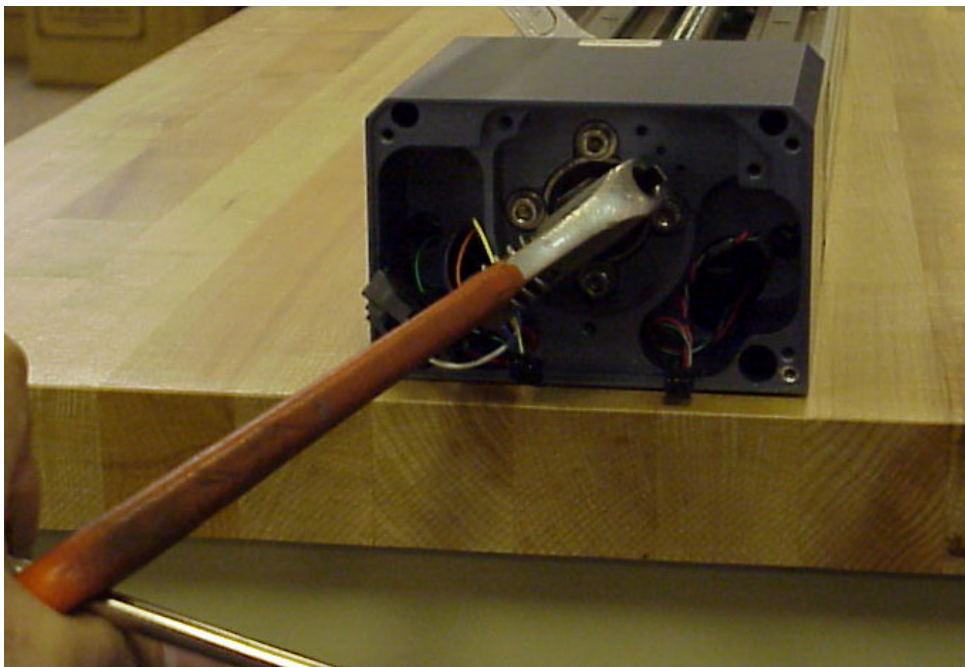
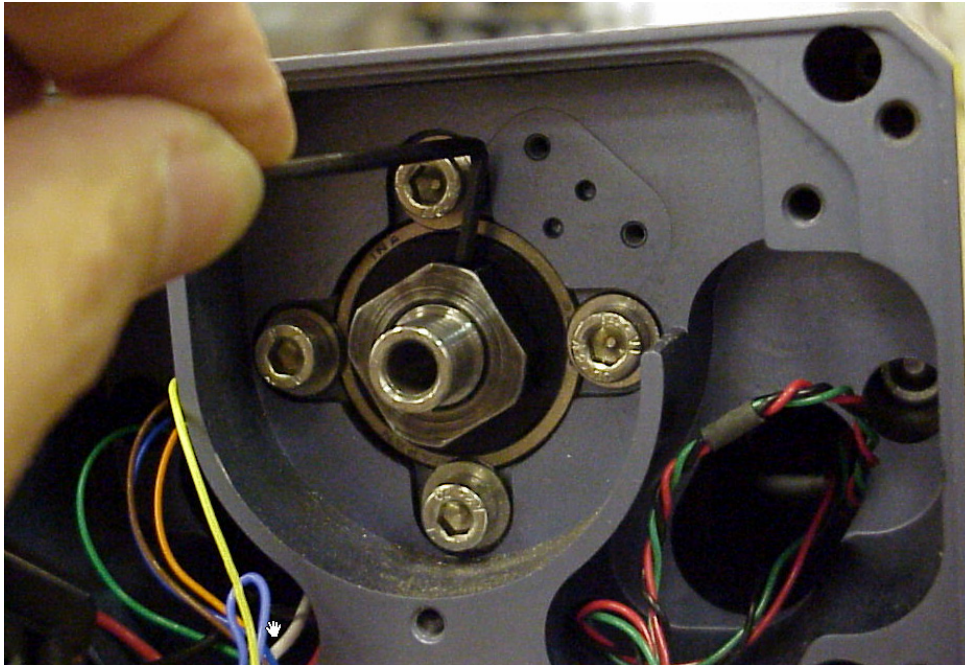
- Hold the ballscrew at one end to prevent it from moving and slowly turn the encoder disc to break loose the locktite (BE VERY CAREFULL AT THIS STEP SINCE THE ENCODER DISC IS VERY THIN AND EASILY GET DAMAGED. HANDLE IT ON THE HUB ONLY)
- Pull the encoder disc and the encoder module out together slowly
- Store the encode disc in a safe, clean and dry place



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Step 7:

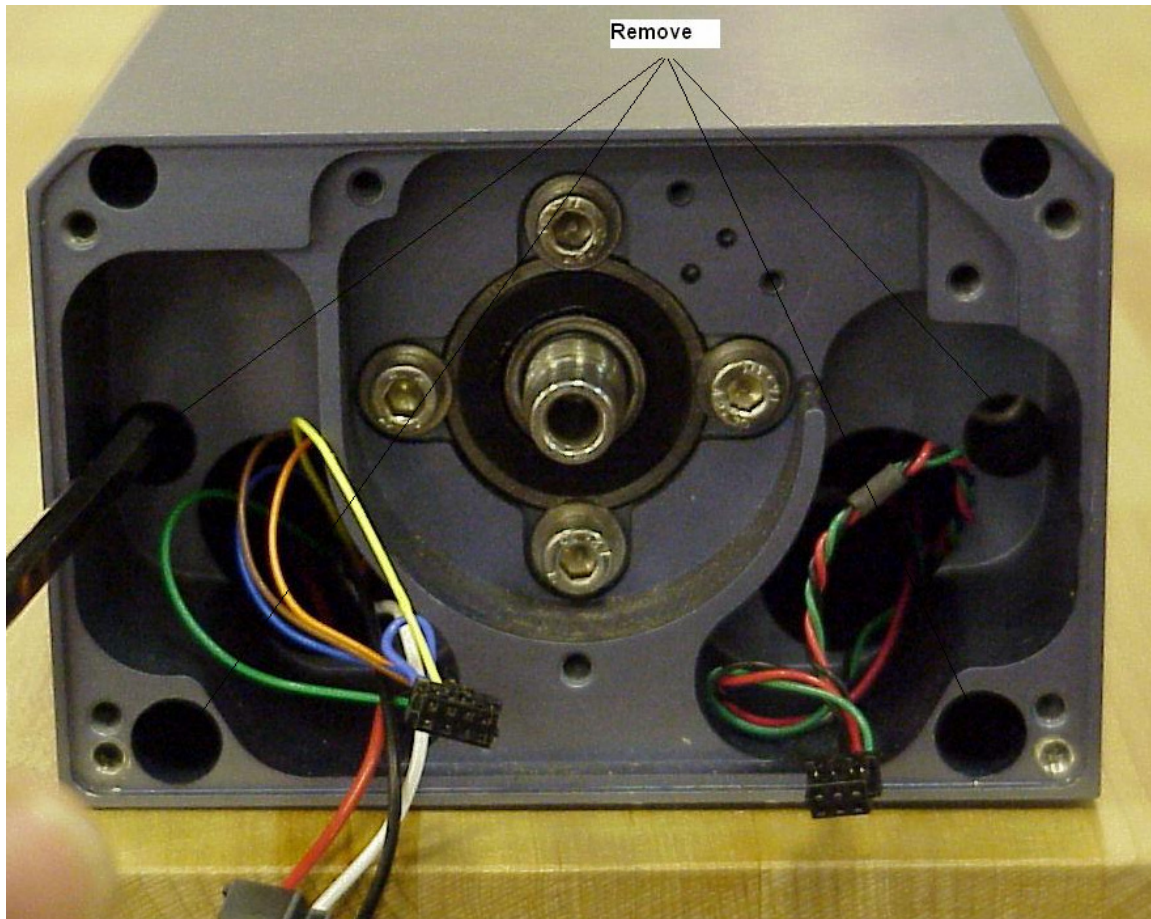
- Loose the set screw that holds the lock nut to the ballscrew shaft
- Secure the ballscrew shaft at one end and turn the lock nut to remove it



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Step 8:

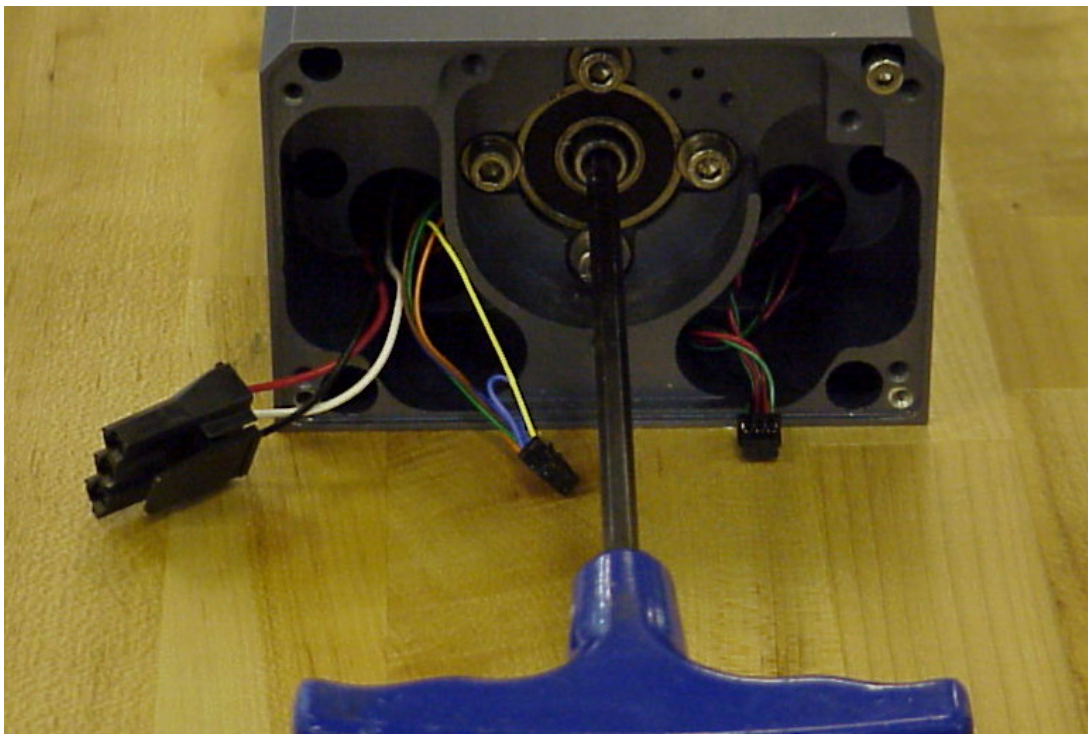
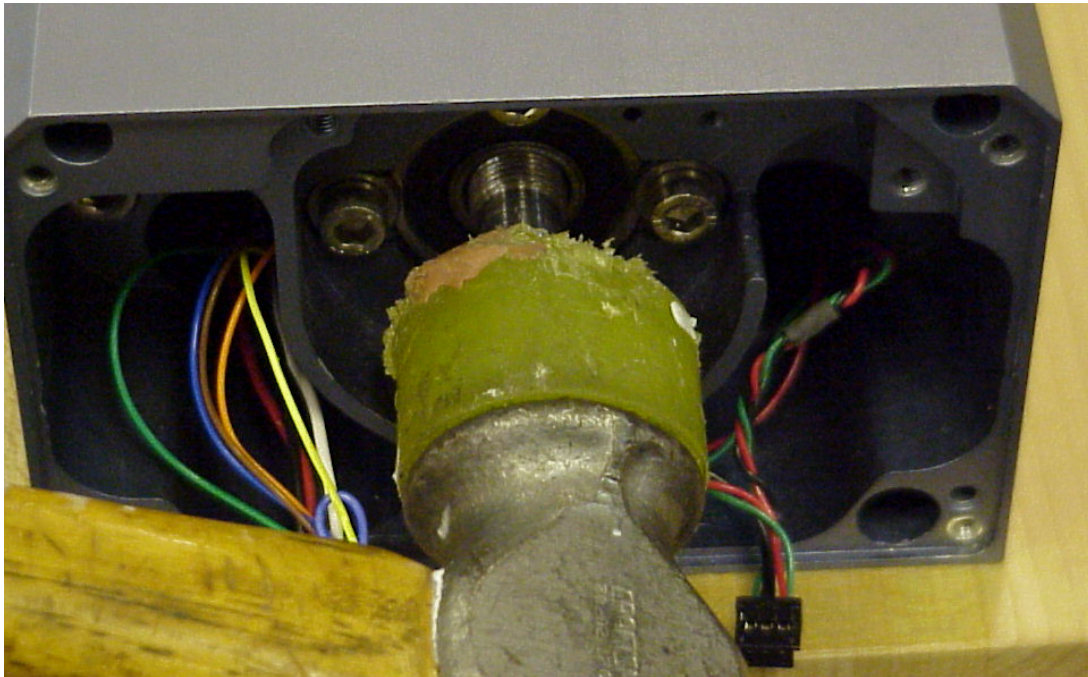
- Remove the four screws that hold the motor housing to the base of the slide



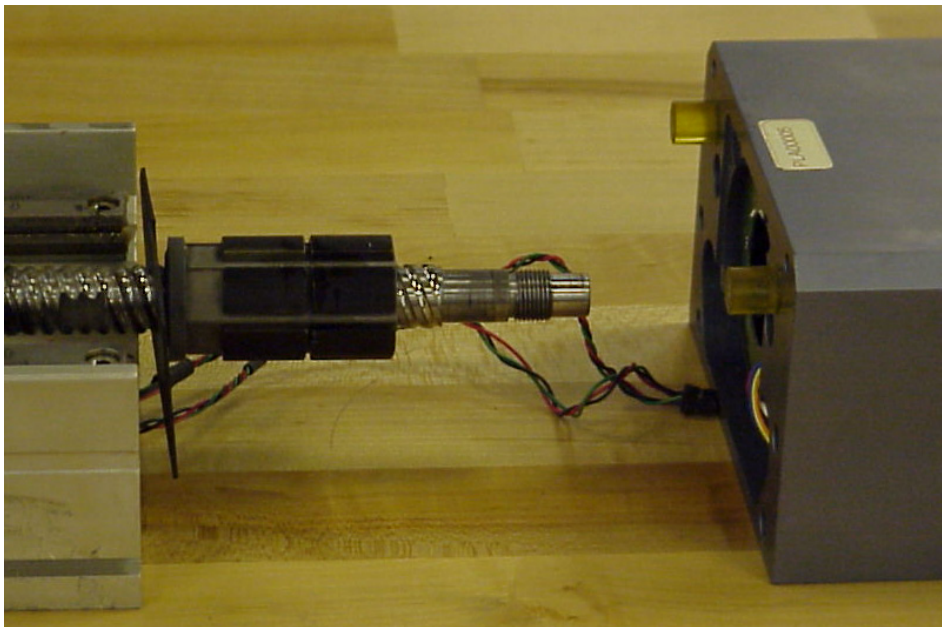
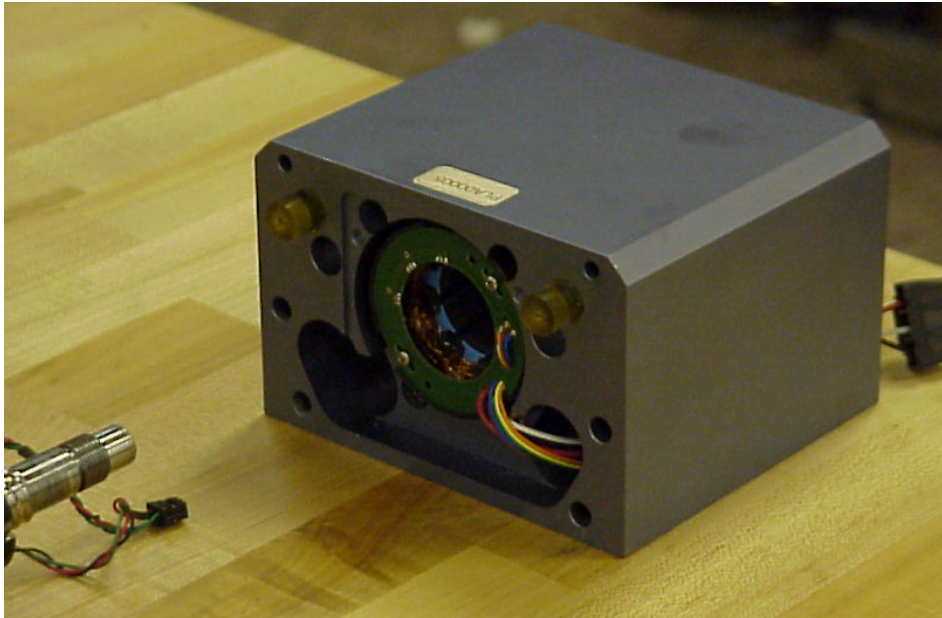
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Step 9:

- Carefully tap directly to the end of the ballscrew and pull the motor housing out



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The reversed order of the above instructions can be used to install a replacement motor to the slide (except the limit sensor wires, it is easier to feed the wires back into the motor housing side first). The magnets are strong. So, please be careful when inserting the ballscrew back into the motor housing. To ensure the proper alignment make that you can move the carriage smoothly from one end to the other before tightening the four screws that hold the motor housing and the base together (see step 8 above)