

ABS Buckling Scenario

1. Check extruder fans spinning. Go to Manual Extruder Control and visually check both fans are spinning
2. Switch the power off



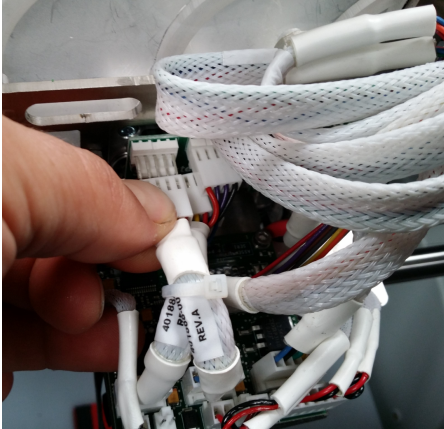
3. Turn machine 180 degrees, so the back panel facing you



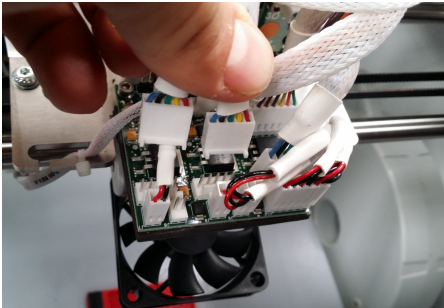
4. Remove top lid



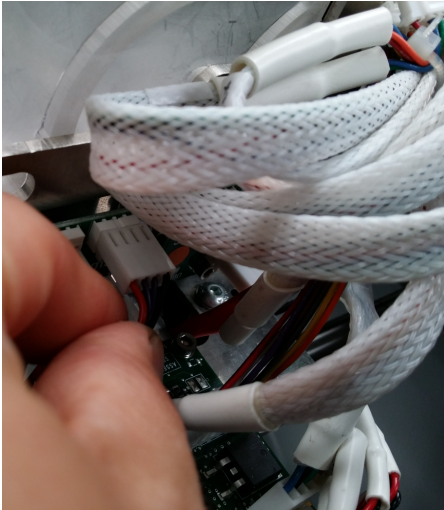
5. Disconnect sensor loom from sensor PCB



6. Disconnect sensor loom from breakout board



7. Disconnect jet from sensor PCB



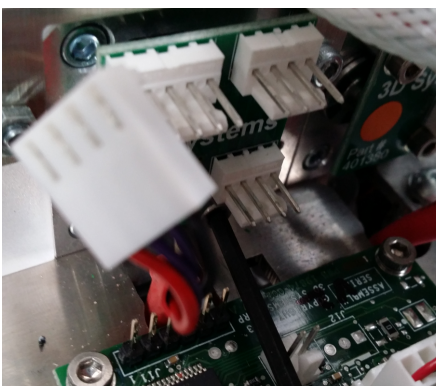
8. Disconnect extruder loom from sensor PCB



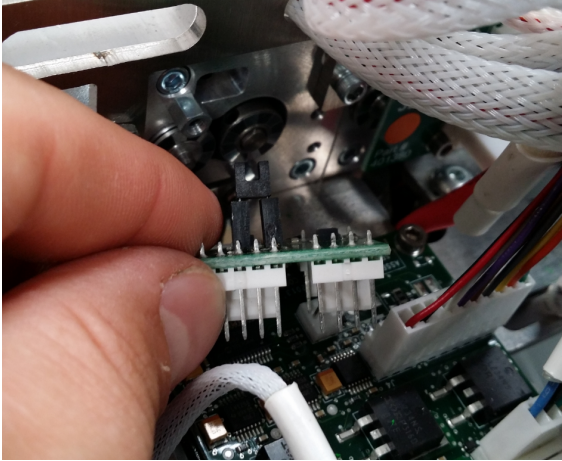
9. Use 2.5mm ball-end screwdriver provided in the toolbox



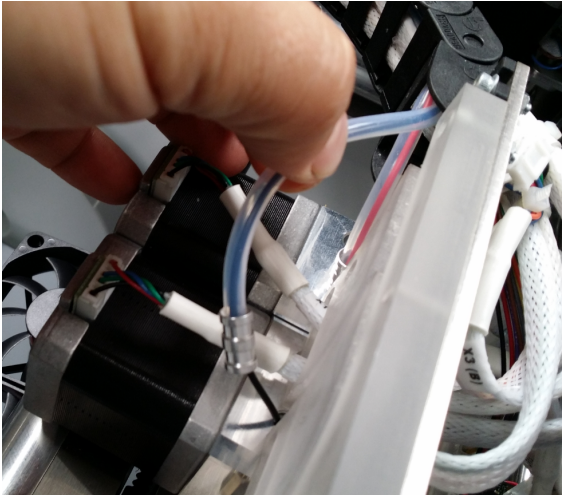
10. Remove sensor PCB. Undo 2 M3x5 screws shown.



11. Remove sensor PCB from extruder drive body. Be careful not to damage the filament sensor



12. Carefully pull the feeding tube from tube block to access the filament



13. Carefully pull the filament from extruder in one smooth move without applying excessive force.



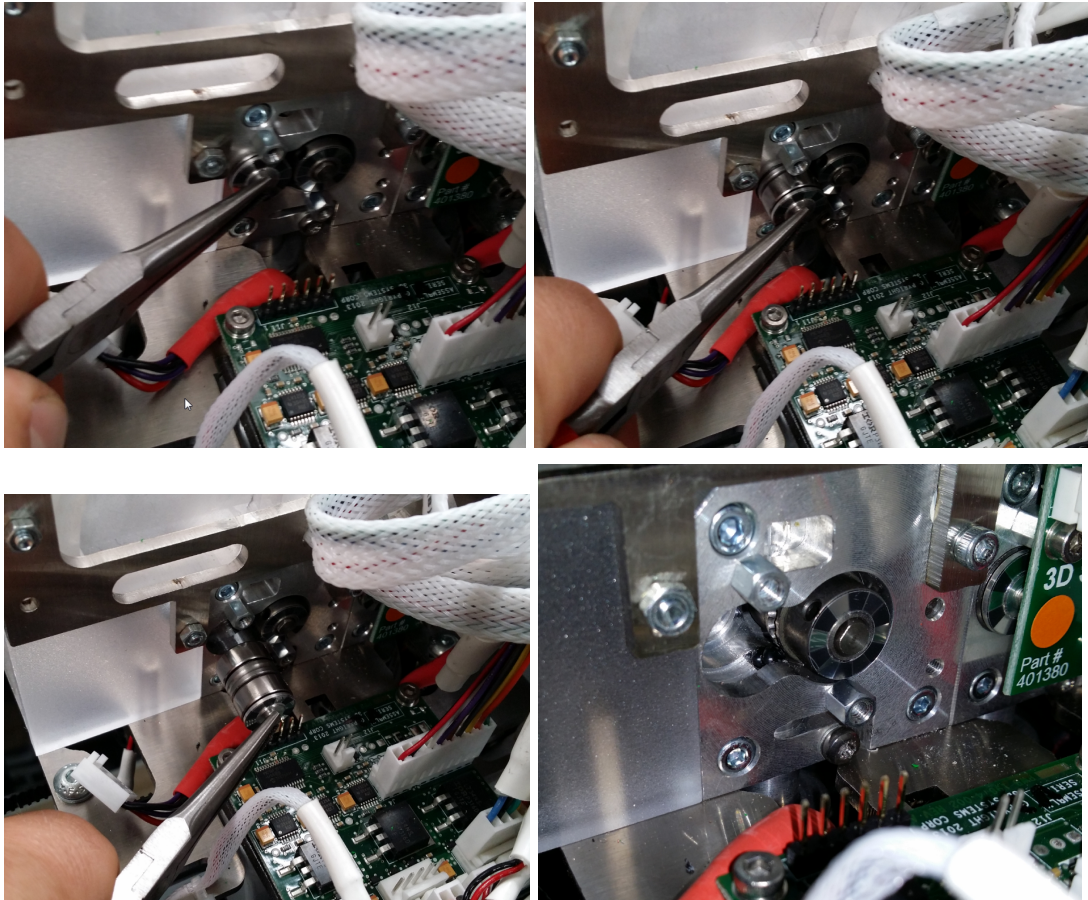
14. The section of filament will look like shown on the picture below:



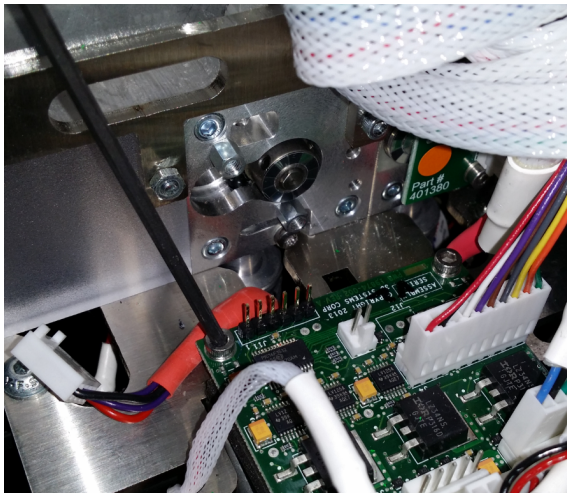
15. Cut the filament above the section removed from extruder



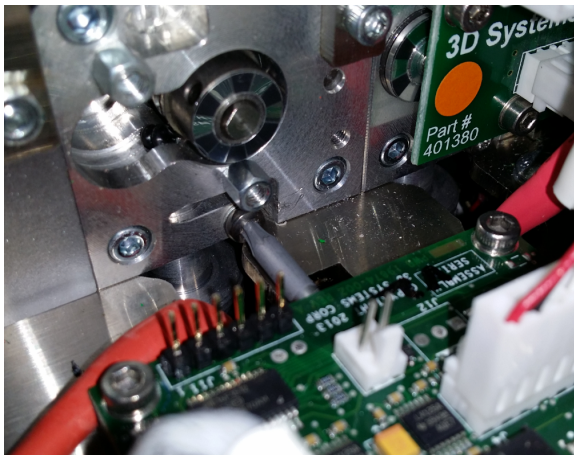
16. Using flat pliers provided with the toolbox, remove the idler wheel assembly from extruder drive assembly. Pull very carefully pinching on the end of idler wheel, be careful not to touch or damage the sensor disk or sensor sticker.



17. Loosen both bolts holding the breakout board



18. Using T10 driver provided with the toolbox, loosen the clamp holding the jet



19. Remove the jet from extruder drive. You will feel some resistance, this is normal, as you will need to break the filament buckled in the extruder. After removing, the jet will look like shown:

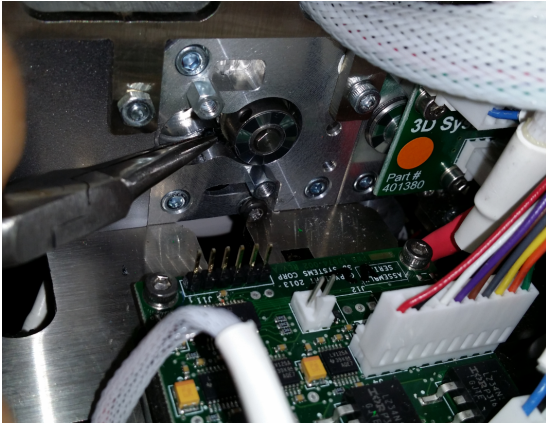


20. Using side cutters provided with the toolbox, cut the filament protruding from cooling tube of the jet. Aim to cut it as deep inside the cooling tube as possible, as it will help

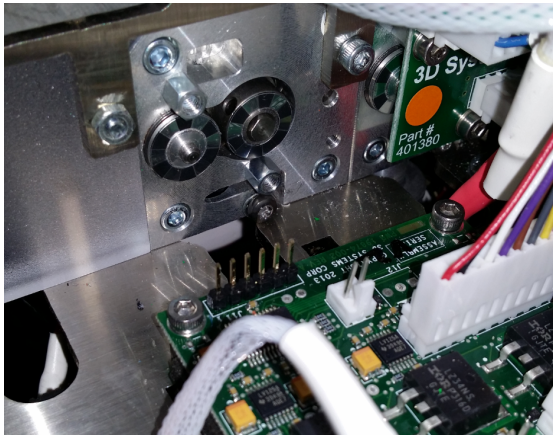
to purge the filament through the jet later on.



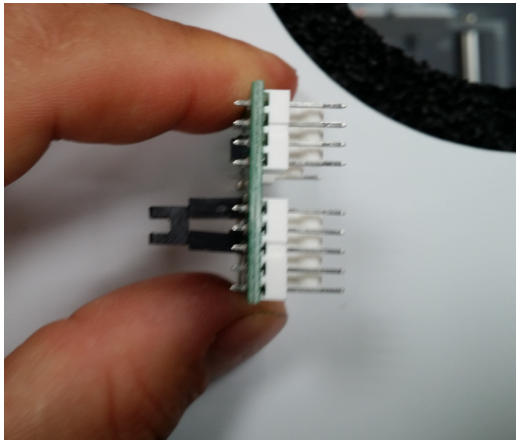
21. Remove buckled filament from within the extruder drive using flat end pliers. Make sure there is no filament left inside. Manually turn the drive wheel to make sure there is no filament left wound on the wheel.



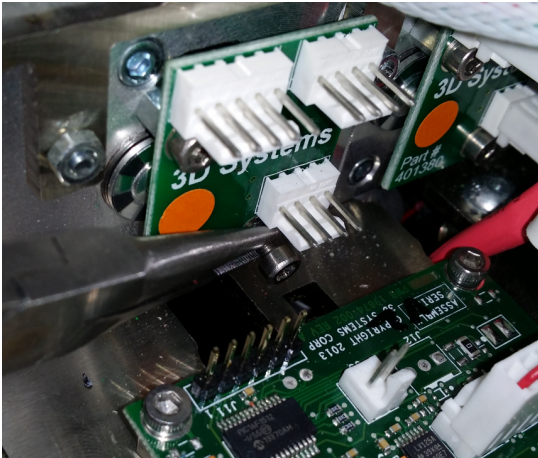
22. Replace the idler wheel assembly. Be careful not to damage the sensor disk or sensor sticker



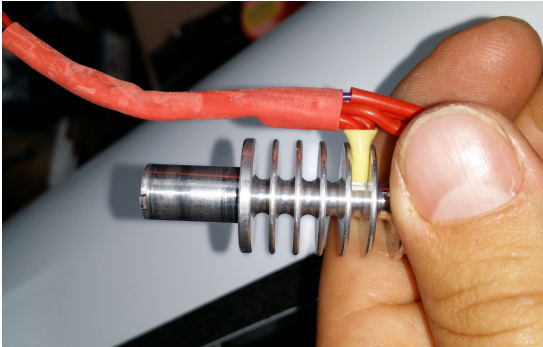
23. Before replacing sensor PCB, make sure that filament sensor is properly installed and aligned in the connectors. Make sure that filament sensor installed in the recess inside the block and PCB is flush with stand-offs. If it is not the case, make sure that everything is aligned properly.



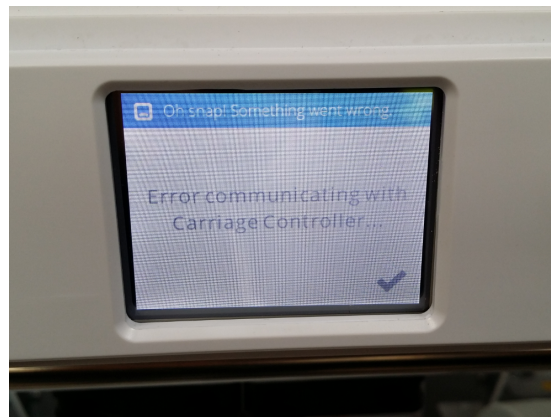
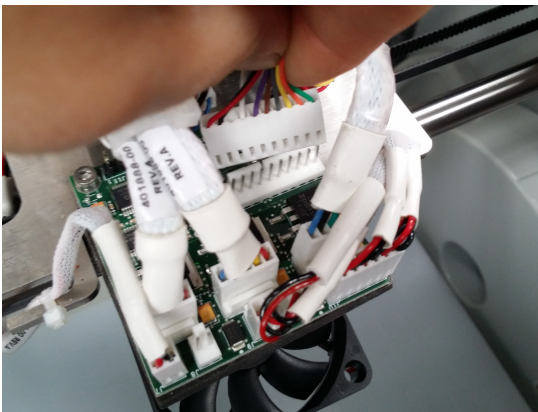
Use flat end pliers to hold the screws, while fixing the PCB to extruder drive



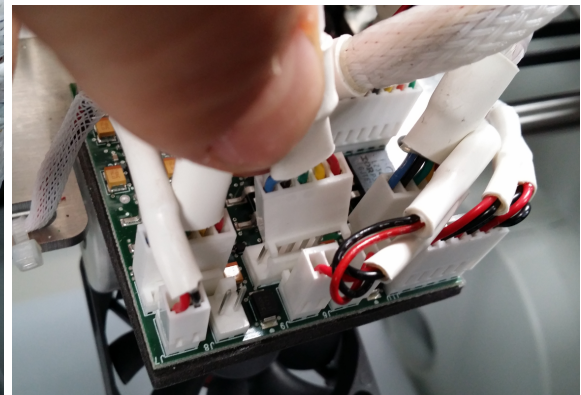
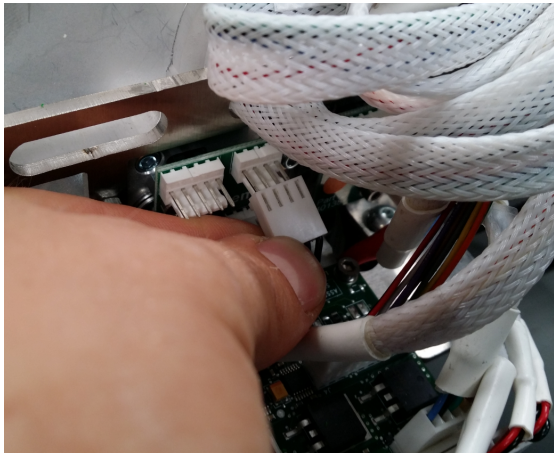
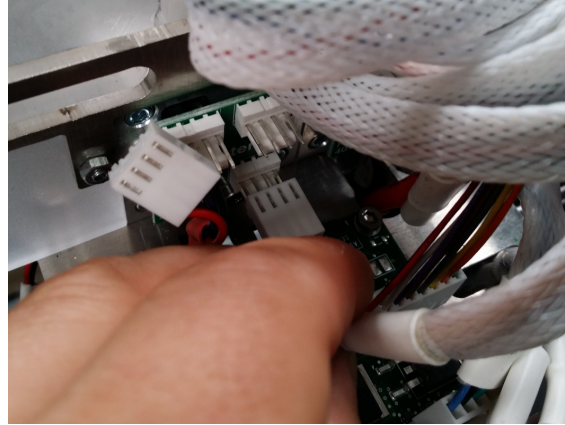
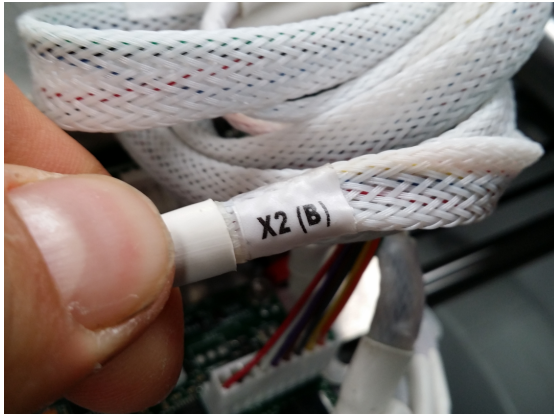
24. Check jet's loom and position of TCO as shown



25. Install the jet back into extruder drive and level the jets, check Z gap. Disconnect head loom from the breakout board to avoid damaging the components while levelling the jets. There will be a warning message on the screen. This can be ignored for now. Replace the head loom connector when finished and do 2 screws holding breakout board.



26. Connect all looms back to sensor PCB and breakout board according to their markings.



27. Using manual extruder control, purge the filament using 260 degrees C and 1(!) RPM. The speed needs to be slow to allow the filament left in the jet to soak heat to be able to move inside the jet.

