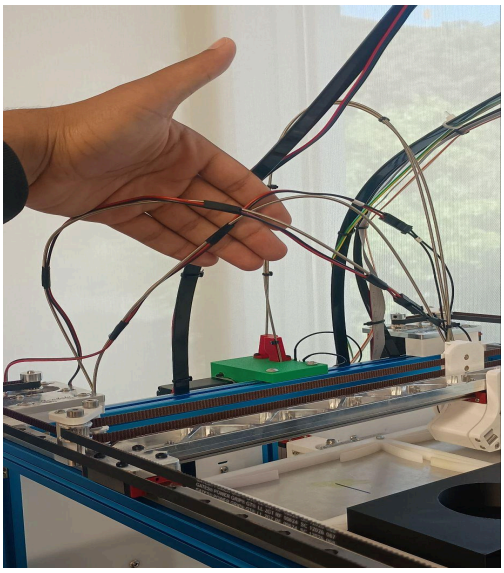
Progress

- **Z- axis homing problem**
  The Z-axis limit switch gets prematurely activated even before the limit switch touches the bed plate. This happens because when the bed plate is moving upwards, the bed plate touches the wiring of the limit-switch which activates it. This is what we initially thought was the problem.

  Solution we tried:
  1. We tried tying the limit-switch wiring with a Zip-tie.

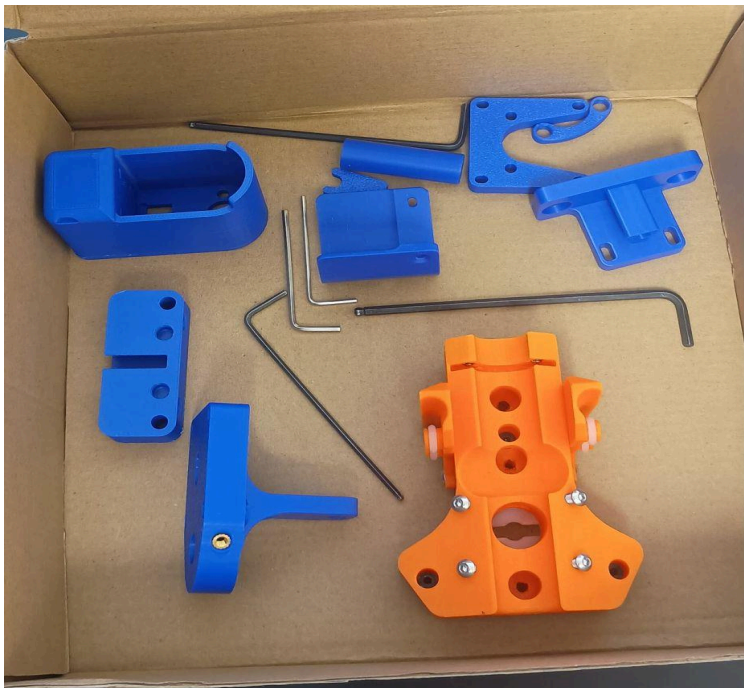


  2. Even with the zip-ties, the wiring was touching the upward-moving bed plate. Hence we made some changes in the Y axis homing and Z-axis homing procedure.
     For the Y axis homing, we added a small +Y move, so that the wiring does not get mangled up with the Screw rod.
     For Z axis homing, we decrease the speed of upward motion during homing so as to lower chances of false activation.

  3. Figured out at last that the problem was a loose connection in the wires which shows up randomly.

  4. Since the existing limit-switch wiring has been recycled through soldering at some points, we suspect it may have some other problems.
     Hence we will replace the limit-switches with the one that was installed on the previous Jubilee.

- **Single Syringe**
    - Printed the parts of the Single syringe tool.



    - Ordered rest of the parts.
      Copy of 10cc Syringe Tool Stock Part Shopping List

Plan Ahead for next week

- **Prepare for Wed lab visit**

- **Lowest Dispense Testing**
  - The lowest dispense test with all the three needle types needs to be done with the new parameter value

    Mm_to_ml = 14.5416
  - Testing has been completed for 0.5mm needle

    Lowest_Dispense_Testing_Sy0_0.5mmNeedle
  - Testing needs to be done for the 1.2mm and 1.6mm needle types.

- **Configure Jubilee according to the dip-probe spectrometer**
  - Print the new well plate according to the size of the newly ordered vials
  - Configure the config files
  - Recalibrate for the positions of the vials according to the spectrometer probe
  - Test the existing spectrometer testing jupyter notebook

Action points

1. To prepare the moving of liquids for the wed lab visit
2. Slides of the code's plot visualisation
3. Dip probe calibration and a way to clean it after dipping it
4. Start putting together the orchestration code

Plan for orchestration

For batch size of 5, check whether the spectrometer measuring time + dipping time + evaporation time of methanol + taking the next measurement is less than 2 minutes (the entire batch should be measured within 10 minutes)