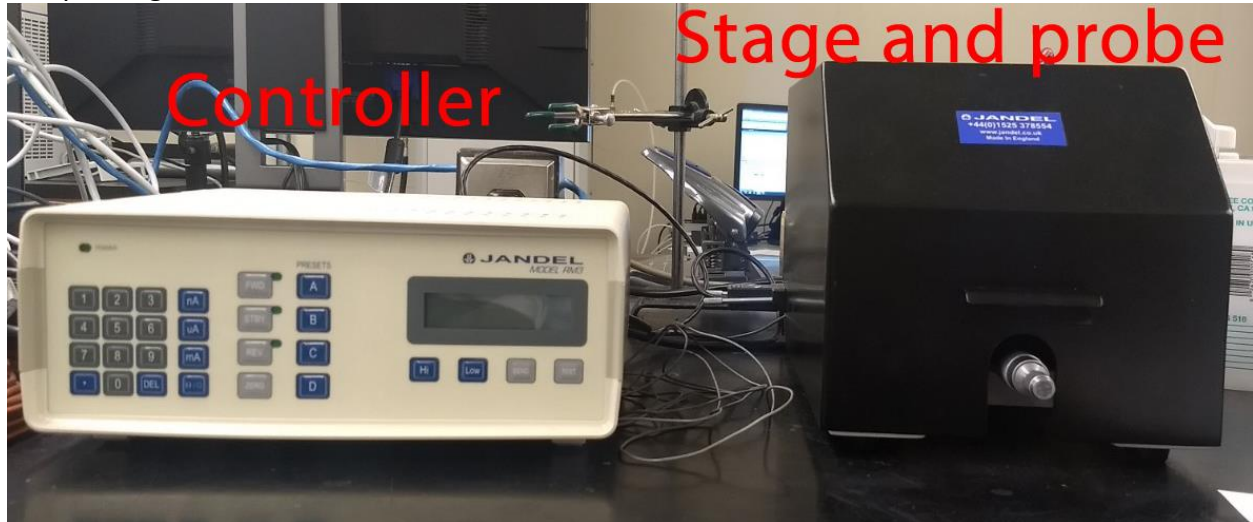


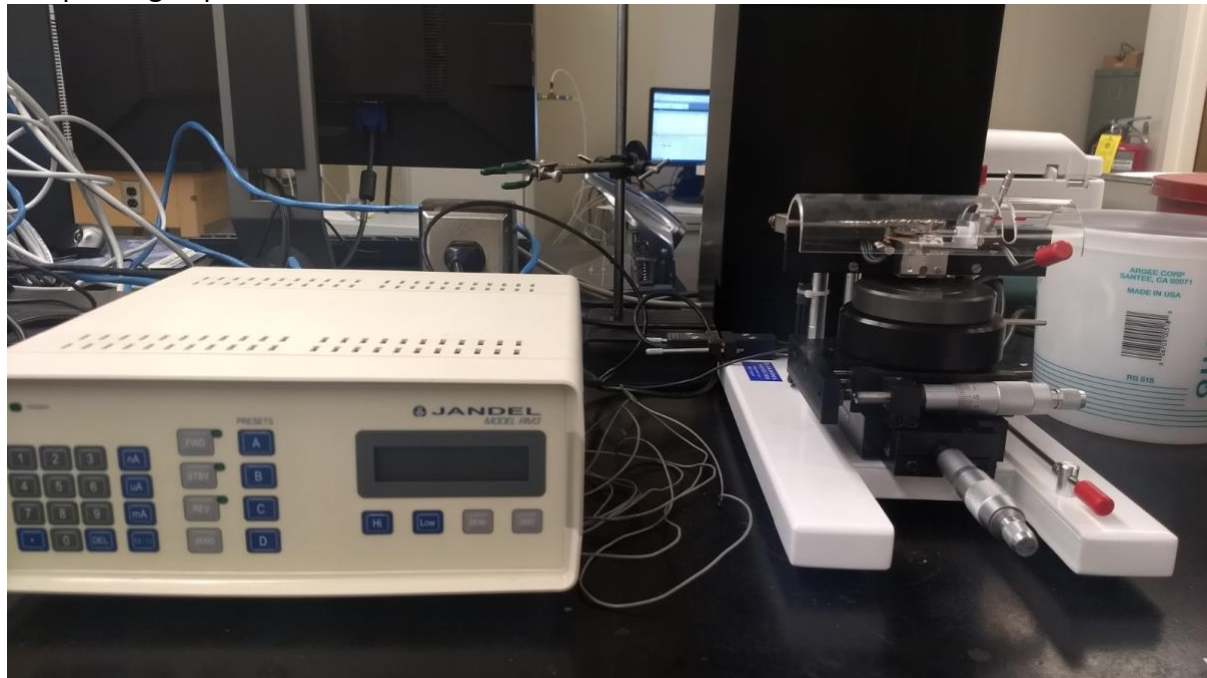
### Jandel 4-point probe Instructions

The instrument consists of two components. The RM3 controller on the left and a 4-point probe and sample stage on the right. The instrument measures the sheet resistance of a square of sample using 4 probes, the outer two supply current and the inner two measure the voltage. The units of sheet resistance are  $\Omega/\square$  (ohms per square)

Sample stage closed



Sample stage open



**Step 1:** turn on the RM3 Controller

- a) Power switch is in the back on the lower left-hand side of the controller

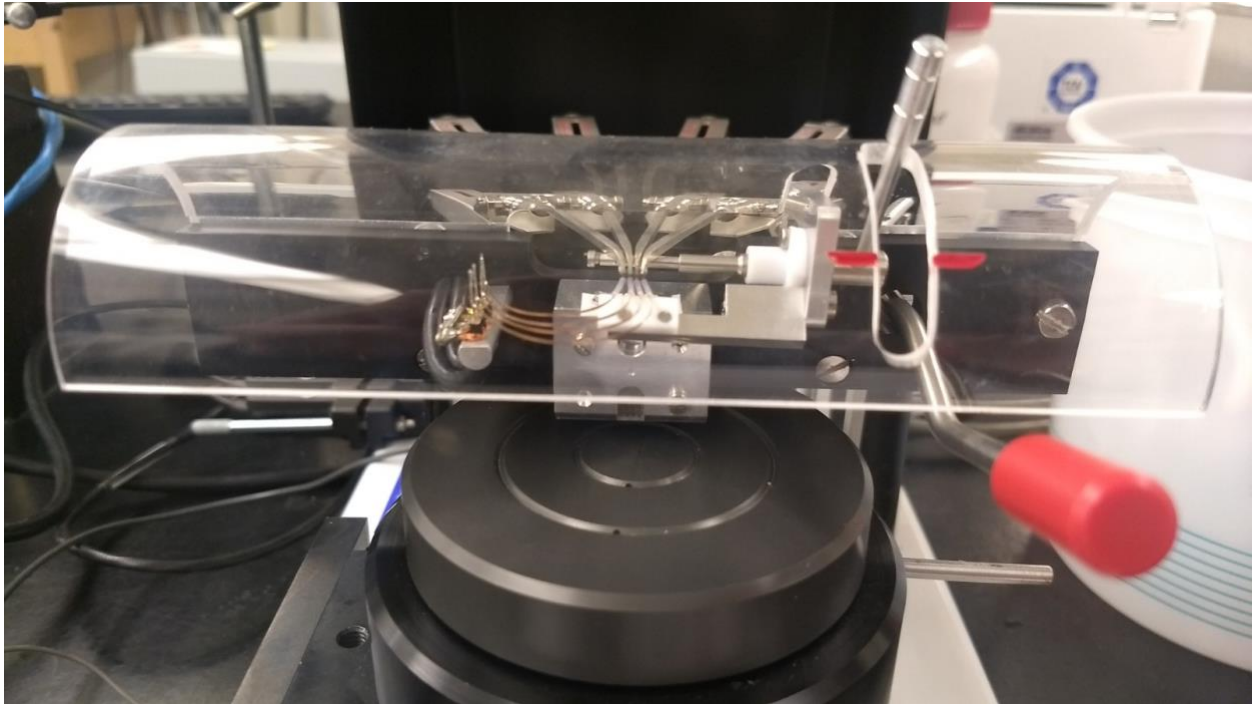
- b) After switching it on controller the LCD will display “calibrating” then after some time go to “Standby”.
- c) After you get “Standby” proceed to Step 2

**Step 2:** press the test button on the controller

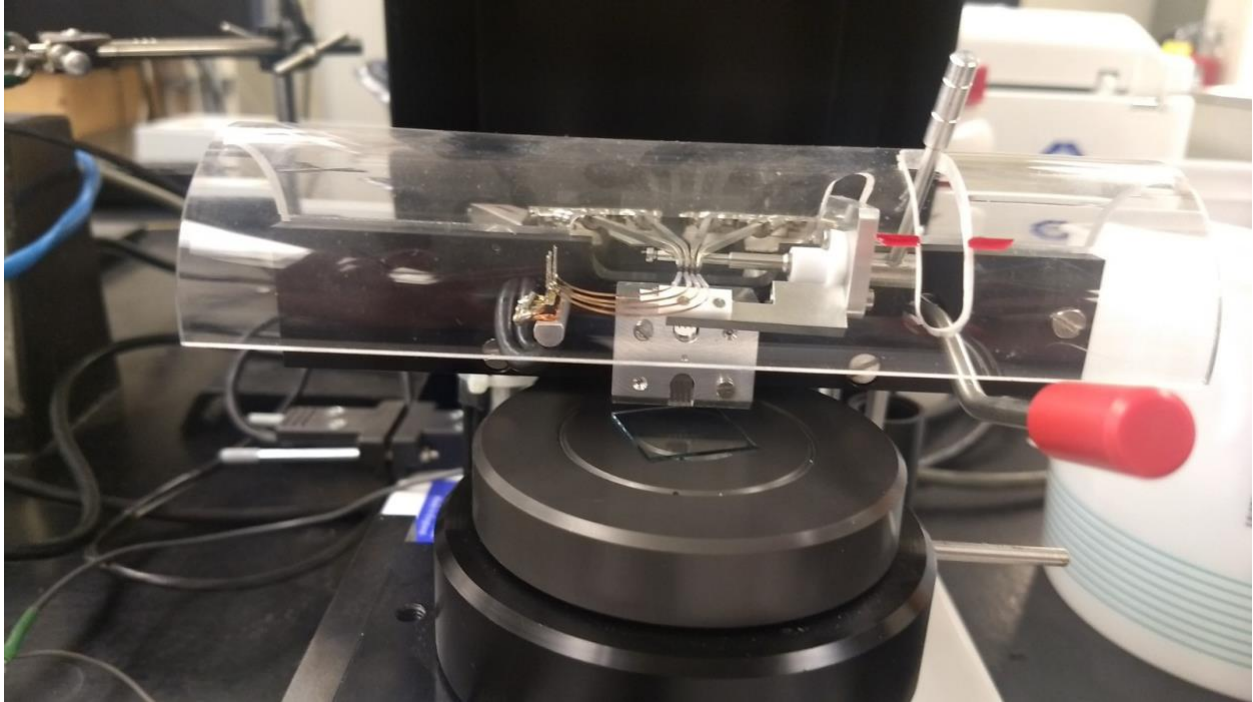
- a) Controller will display “calibrating”, followed by “zeroing”, and “testing”
- b) When the controller displays “Tested Failed” proceed to step 3

**Step 3:** Put your sample on the round sample stage with the area you want to measure under the 4-point probe

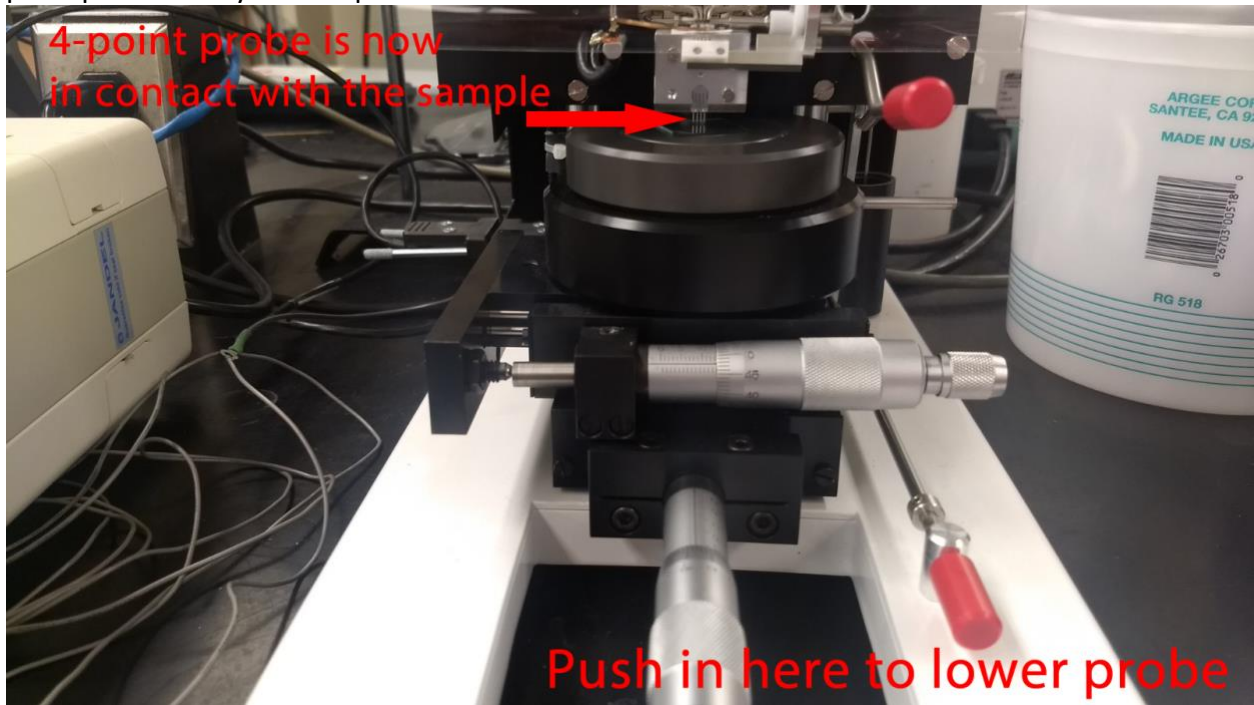
Without sample



With sample in place



**Step 4:** Push the red-knob in on the lower right-hand side of the sample stage to lower the 4-point probe onto your sample



**Step 5:** press the zero button to take a measurement

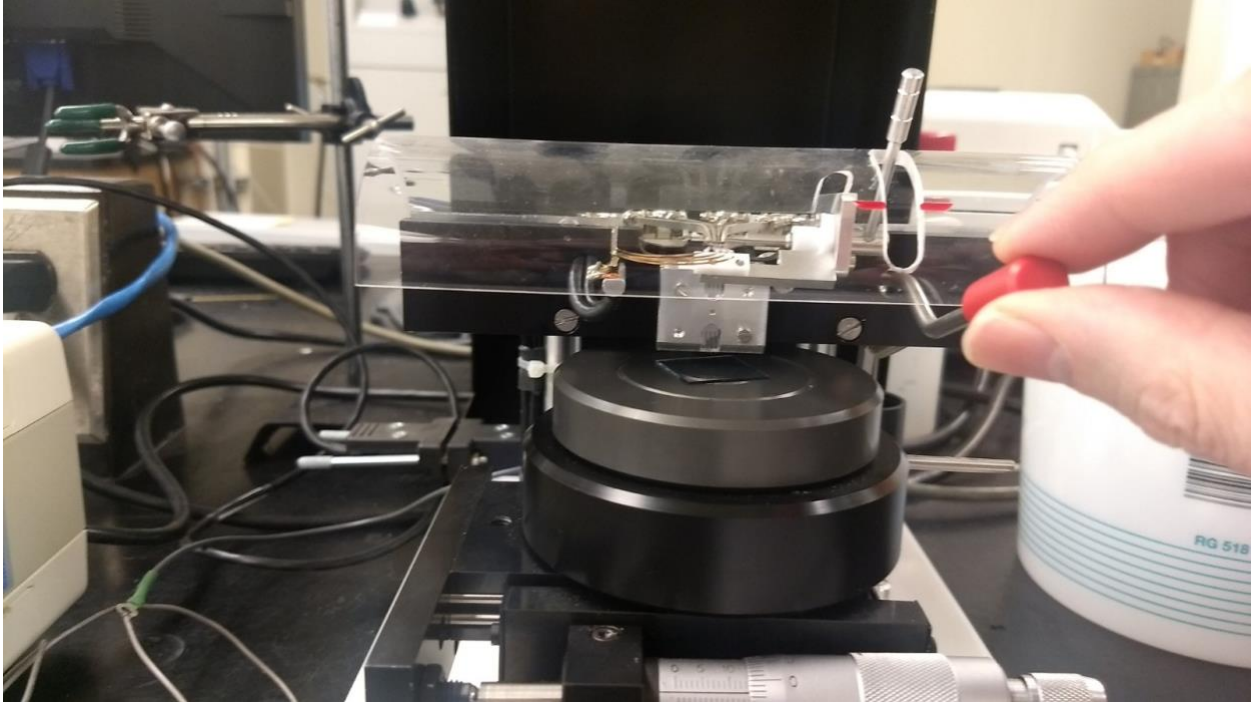
a) You'll need to wait a few seconds for the measurement to stabilize

**Optional 1:** change the current applied to the 4-point probe (the default current is 9  $\mu\text{A}$ )

- a) On the controller, type in the desired current followed by the units' button
- b) If you get the error "Contact Limit" try reducing the current

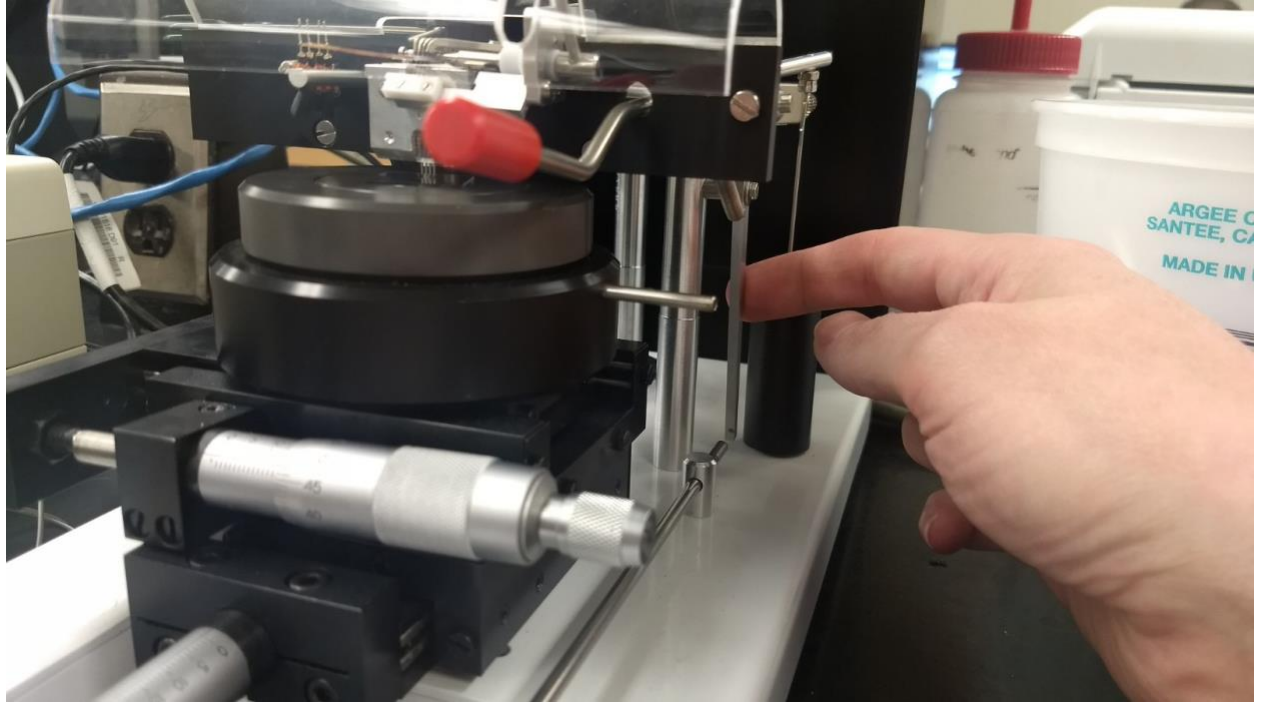
**Optional 2:** moving the sample around to take a reading somewhere else on the sample

- a) Press the Standby button on the controller: this turns off the current to the probe
- b) Lift up the red knob on the top of the 4-point probe and then move your sample around, then release the knob to lower the 4-point probe by into contact with your sample
- c) Press FWD button on the controller: this will take a new reading



**Step 6:** removing your sample when your done

- a) Pull out the red knob on the lower right-hand side of the sample stage
- b) At the end of the red knob lever is another lever that runs to the top of the sample stage, pull the lever towards you



- c) Lift up the red knob lever at the top of the sample stage until you hear it click
- d) The 4-point probe should now be stuck in the up position and no longer making contact with your sample
- e) Remove your sample and close lid of 4-point probe and stage

**Step 7:** turn off the power to RM3 controller