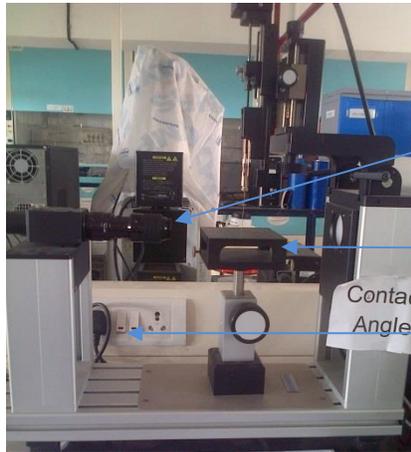


SOP for Contact angle tool, Dataphysics OCA 15

1. PPE:

- i. Safety glasses
 - ii. Chemical apron
 - iii. Gloves: Technichem Triblend (nitrile, neoprene, latex)
 - iv. Covered shoes
2. Switch on the power supply (Pic: 1), tool (black switch on back side of the tool) (Pic: 2), computer along with UPS. Illumination can be adjusted using a regulator on the backside of the tool (Pic: 2)

Pic: 1



Camera

Sample stage

Electric Power

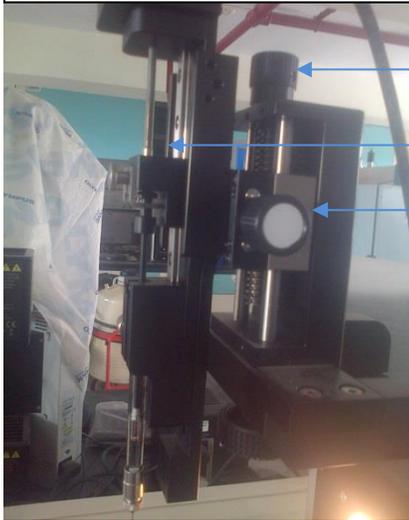
Pic: 2



Illumination
regulator

Tool switch

Pic: 3

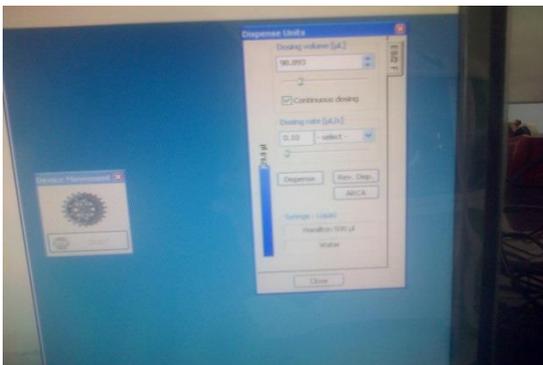


Vertical mover knob

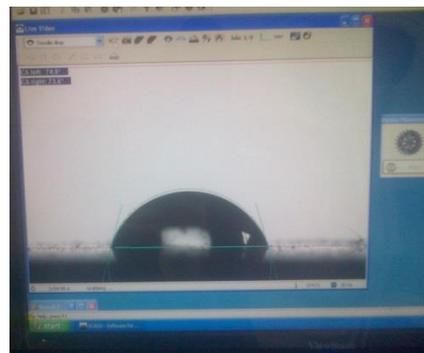
Syringe groove

Horizontal mover knob

Pic: 5



Pic: 6



3. Take out the syringe from the slot by unscrewing two screws on the slot (Pic: 3).
4. Fill the syringe with water up to 500 μL mark.
5. Insert the syringe into the designated groove; tighten the screws to fix the syringe.
6. Adjust the syringe height with up (\uparrow) and down (\downarrow) arrows. This can be adjusted before opening the software (Pic: 3).
7. Open the software when the window capturing live images open. Bring the syringe image into the window by adjusting vertical and horizontal slider knobs. Focus / magnify the image (Pic: 3).
8. Place the substrate to be measured on the mount (Pic: 1).
9. On the window click
Device > Device control > Dispense units (Pic: 4)

- 10.** On dispense unit window select dosing volume and click dispense when the syringe starts dispensing. Stop after 1 μL is on the tip of the syringe. Bring the syringe down using vertical slider knob so that the drop touches and lands on the surface (Pic: 5).
- 11.** Click on icons: Base line > Extract profile > Measure (Pic: 6)
- 12.** Note down the contact angle values.
- 13.** While shutting down shut down the computer, UPS, power supply, black switch on the tool, power supply. Cover the tool with plastic cover.
- 14.** Make an entry in the log book.