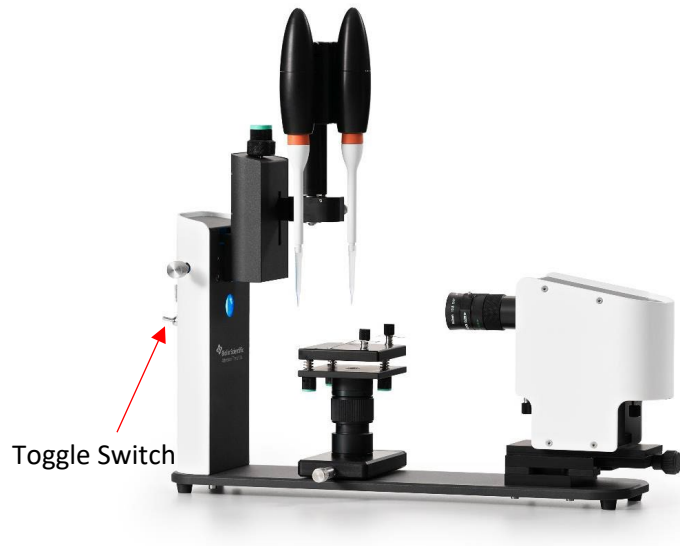


GONIOMETER FROM BIOLIN SCIENTIFIC

THETA LITE

Revised Aug. 2022 Chuang Qu

- Login to computer; No password
- Turn on instrument. Toggle switch at the rear end of the tool.



- Start software: OneAttention
Login to software: admin pwd: shumaker

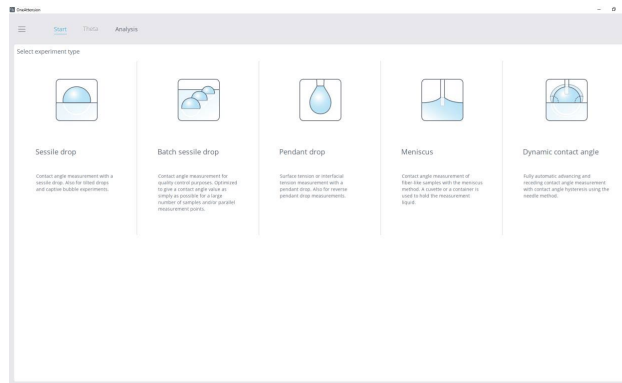
Login ✕

Username

Password

Login Cancel

- Calibration needs to be done every time
 - a. Click 'Start' tab

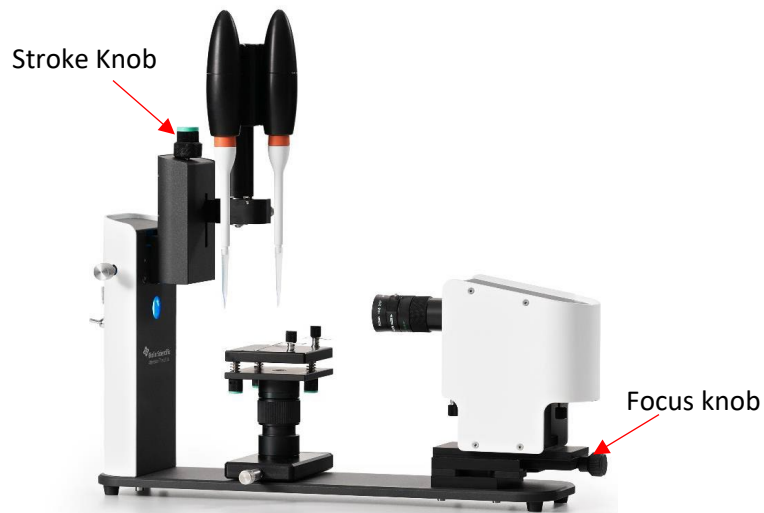


- b. Click 'Sessile drop', image of pipette tip should appear; if not, turn the knob to adjust the position of the pipette to appear in the frame



- c. Focus on pipette tip, baby blue knob on the right
 - d. Go to Camera parameters and select Autoadjust
 - e. Click in the image and select "focus tool" ;
Maximize the peak of the blue line
 - f. Level sample stage using bubble indicator, blue knobs beneath stage
 - g. Raise sample stage so that it is in the picture
 - h. Place calibration ball on the sample stage beneath the pipette tip. Use blue magnetic holder
 - i. Click on the word "calibrated". Calibrate with ball should be selected. Verify that the ball diam. setting is 4mm Click "Calibrate"
 - j. Should respond with calibration selected. $1\text{px} = 8.07 \dots \text{E}-6\text{m}$. Select Ok.
- Fill pipette with liquid using a small beaker.
 - i. Place tip in liquid
 - ii. In "theta" tab >> controls select dispense to remove remaining liquid and prepare for fill
 - iii. Make sure you have selected the correct pipette
 - iv. Select "fill" and let it fill the whole 360 ul, can stop if you don't need whole vol.

- Place sample on the stage
 - a. Select “recipe”
 - b. Select a recipe “Si sessile in training”, for eg.
 - c. Enter Experiment name and any relevant comments. Select Autosave
 - d. Drop in and drop out set to 4 ul in our case
 - e. Press play for the correct pipette
 - f. After it is dispensed, deposit the droplet by pressing the ‘stroke knob’, the droplet is deposited on the sample



- g. Select “Record”
 - h. Use button on the left of the tool to lower the droplet
- Select Analysis
 - a. Select the “+” button to see the set of results
 - b. Select the appropriate set of results
 - c. “Analyze right away with default setting”
 - d. Note right clicking in the frame gives a number of options for saving images or video
 - e. Can select “Graph” tab to display a number of parameters.
 - f. Can select “Time” vs “Baseline” and see where the baseline has stabilized.
 - g. Can select the stable range on the table of data to get the most stable baseline
 - Shut down
 - a. Remove sample
 - b. Dispense liquid from pipette
 - c. Close software and turn off power on the left of the instrument.