

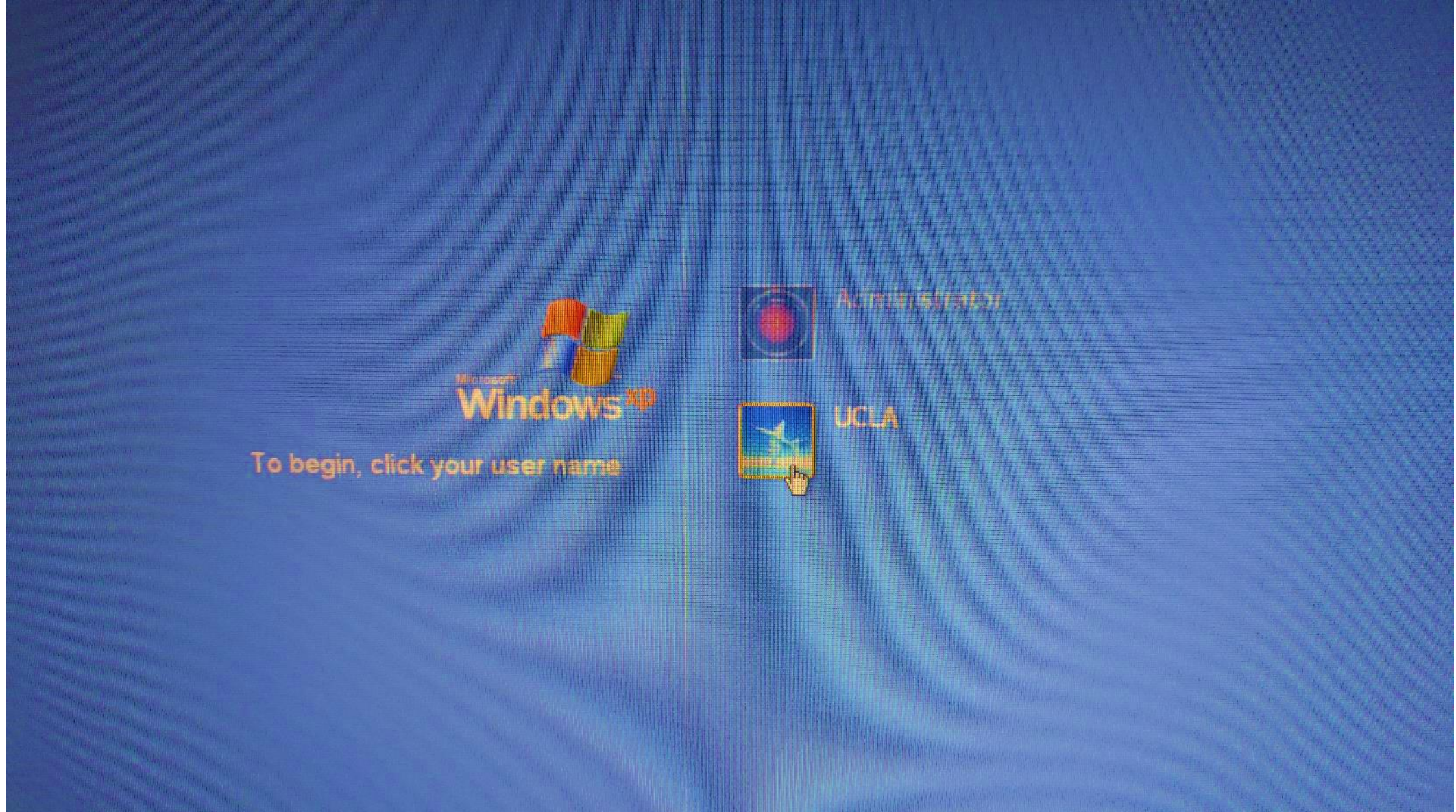
OPERATING THE KORIMA PRS 1000 UV MICROSCOPE

MICHAEL COLLAZO (805) 982-0606

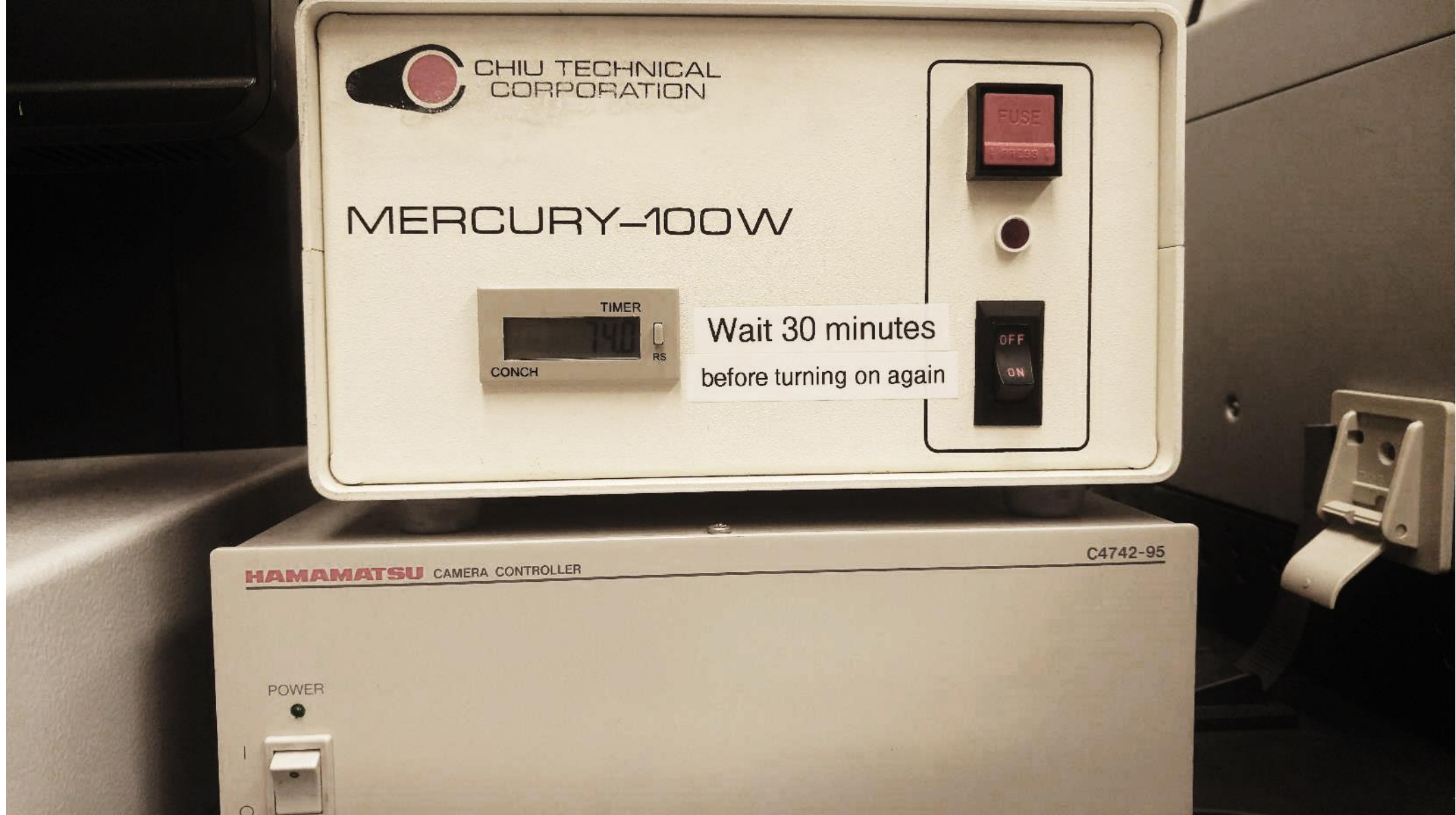
THIS DOCUMENT IS A REFRESHER

THIS MICROSCOPE IS RESTRICTED TO USERS OF THE CORE

ONLY USE IF YOU HAVE BEEN TRAINED BY 106 STAFF



SELECT UCLA USER NAME.
NO PASSWORD REQUIRED.



THE MERCURY BULB POWER SUPPLY AND HAMAMATSU (UV) CAMERA CONTROLLER SHOULD BE IN THE OFF POSITION. LOOK TO SEE HOW MANY HOURS ARE ON THE TIMER. THESE ARE LAMP HOURS.

UV Microscope Log

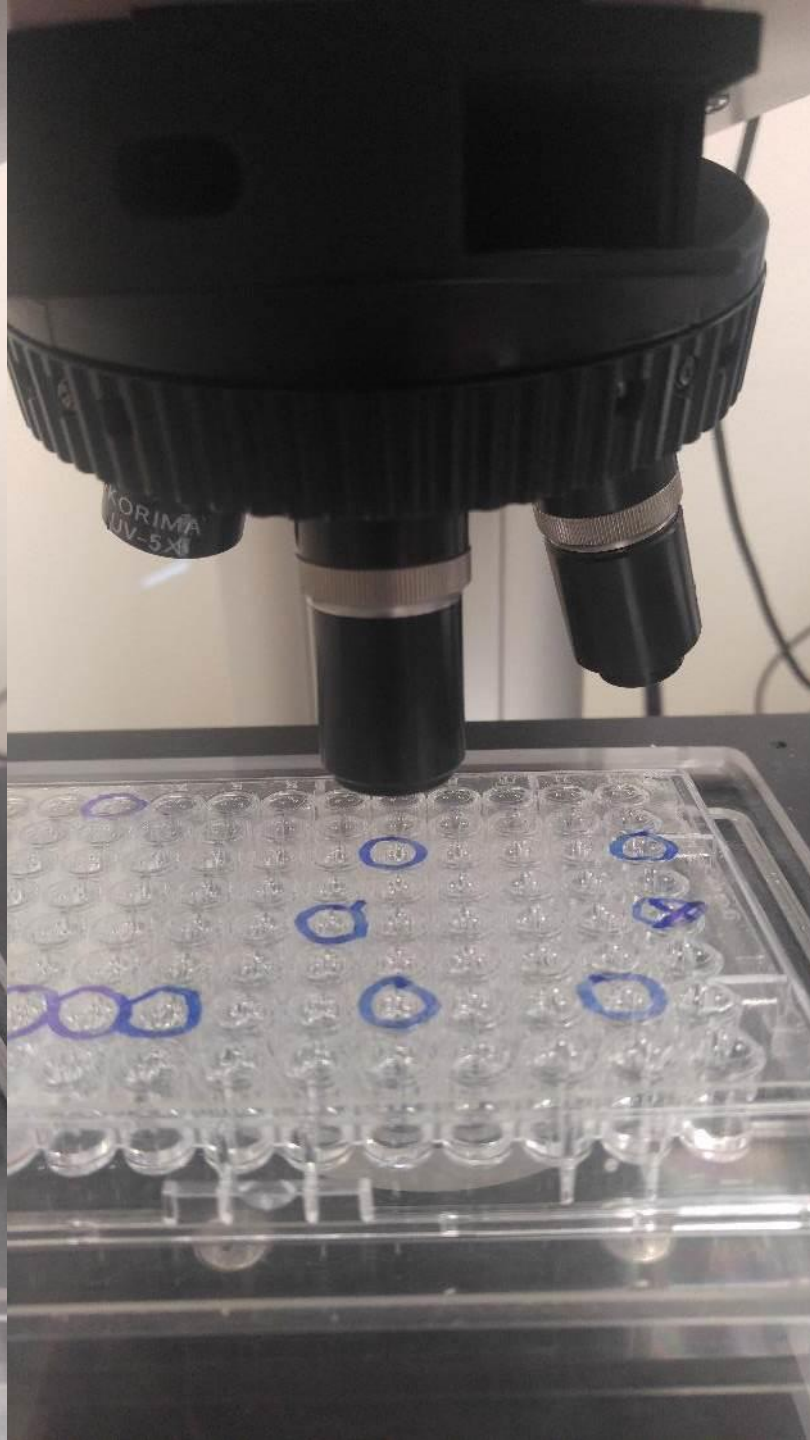
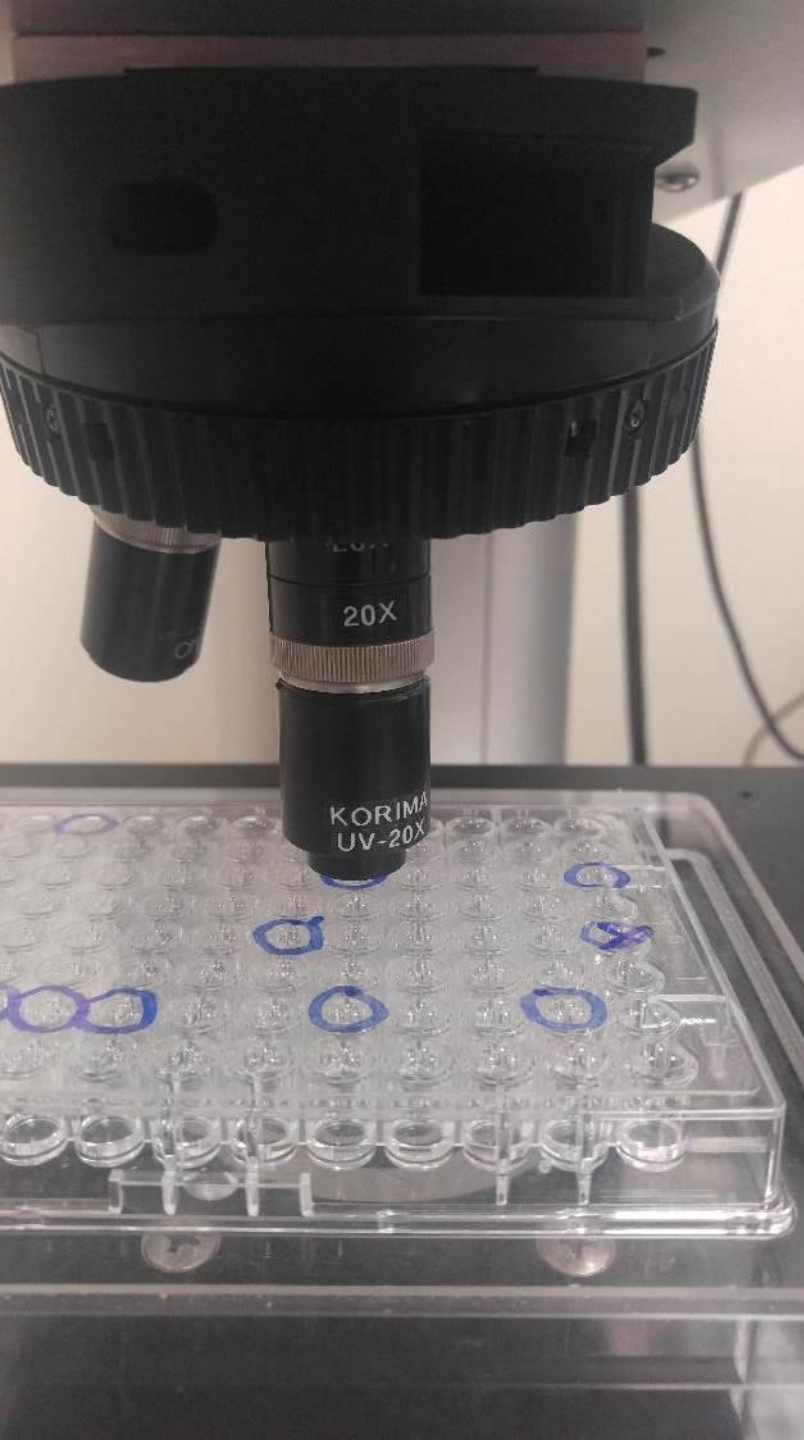
Name/PI.	Date	Start Time	Finish Time	UV Lamp Hours	UV Off? CCD Off?
J. Doe / D. Joe	03/25/11	03:00:00 PM	03:15:00 PM	60.3-60.4	Y Y
Clubb / Chris	04/09/18	11:40 AM	11:50 AM	71.6 - 71.7	✓ ✓
Clubb / Chris	04/09/18	4:50 pm	5:00 pm	71.9 - 72.1	✓ ✓
Clubb / Chris	04/11/18	6:43 pm	6:50 pm	72.1 - 72.2	✓ ✓
Clubb / Chris	04/13/18	1:50 pm	1:58 pm	72.2 - 72.4	✓ ✓
Clubb / Chris	04/18/18	6:30 pm	6:38 pm	72.4 - 72.5	✓ ✓
Justin / Yeates	04/24/18	10:00 AM	10:10 AM	72.5 - 72.5	✓ ✓
Kyle / Yeates	4/26/18	2:20 p.m.	2:40 p.m.	72.6 - 73.0	✓ ✓
Mcaghnan / Bowie	4/26/18	3:50 pm	4:10 pm	73.1 - 73.4	✓ ✓
Mark / Yeates	5/1/18	9:50	9:55	73.4 - 73.5	✓ ✓
Alan / McEvoy	5-1-18	10:50	10:55	73.5 - 73.6	✓ ✓
Justin / Yeates	5-4-18	2:45	2:56	73.6 - 73.8	✓ ✓
★	★	★		★	

Do not turn off the computer

CHECK THE LOG TO SEE WHEN THE BULB WAS LAST ACTIVE. THE HOURS LAST RECORDED SHOULD MATCH THE LAMP HOURS. RECORD YOUR NAME/PI, DATE, START TIME, INITIAL LAMP HOURS.



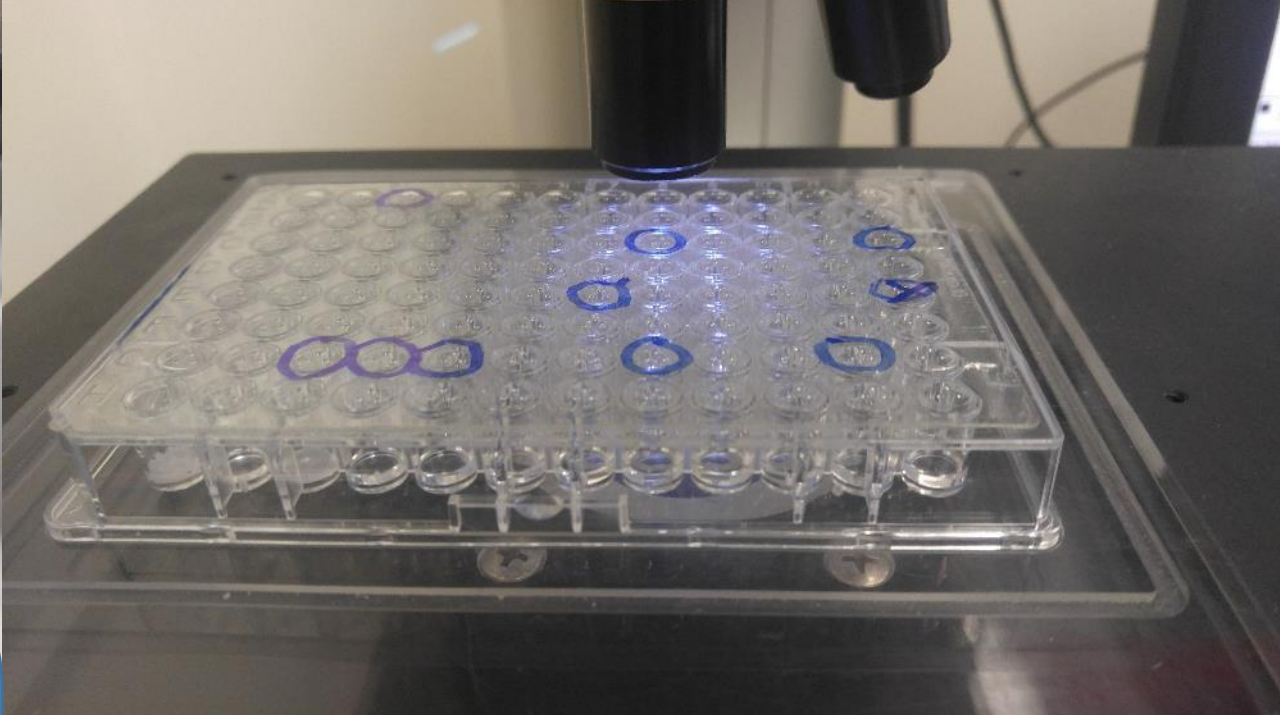
TURN ON THE MERCURY BULB AND CAMERA CONTROLLER IN ANY ORDER.
(NO SEQUENCE REQUIRED)



IT IS A GOOD IDEA TO PLACE YOUR TRAY UNDER THE LARGEST OBJECTIVE TO POSITION THE WELL IN THE CORRECT PLACE.

NEXT SWITCH TO THE MIDDLE OBJECTIVE.

IT IS EASY TO FIND YOUR OBJECT OF INTEREST USING THE MIDDLE OBJECTIVE SINCE THE SMALLEST CASTS A SHADOW.



TURN ON THE LED LAMP BY ROTATING THE KNOB
ON THE RIGHT CLOCKWISE.

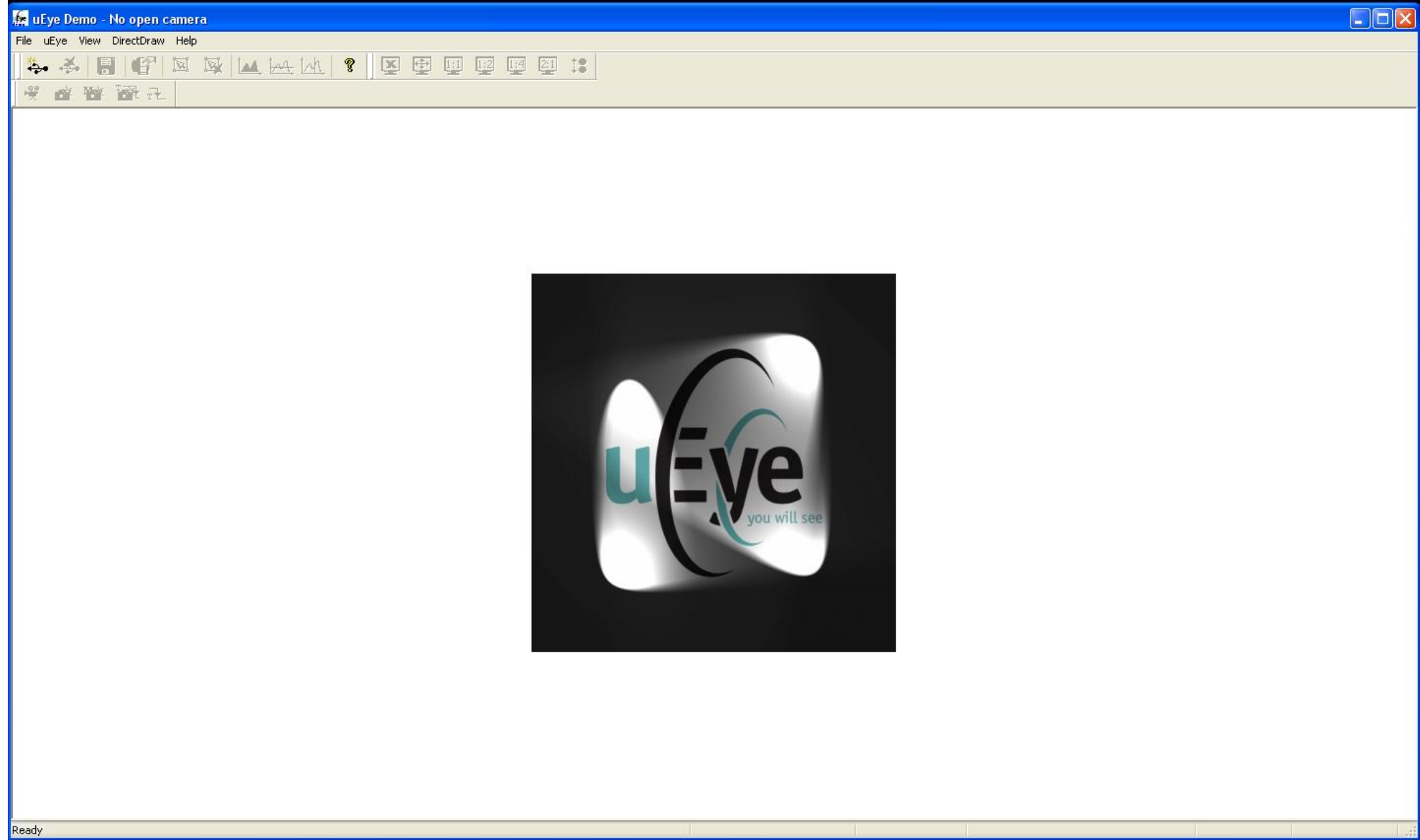
80% OF A FULL ROTATION GIVES A NICE AMOUNT
WHEN VIEWING THROUGH THE MIDDLE OBJECTIVE.



Wasabi!

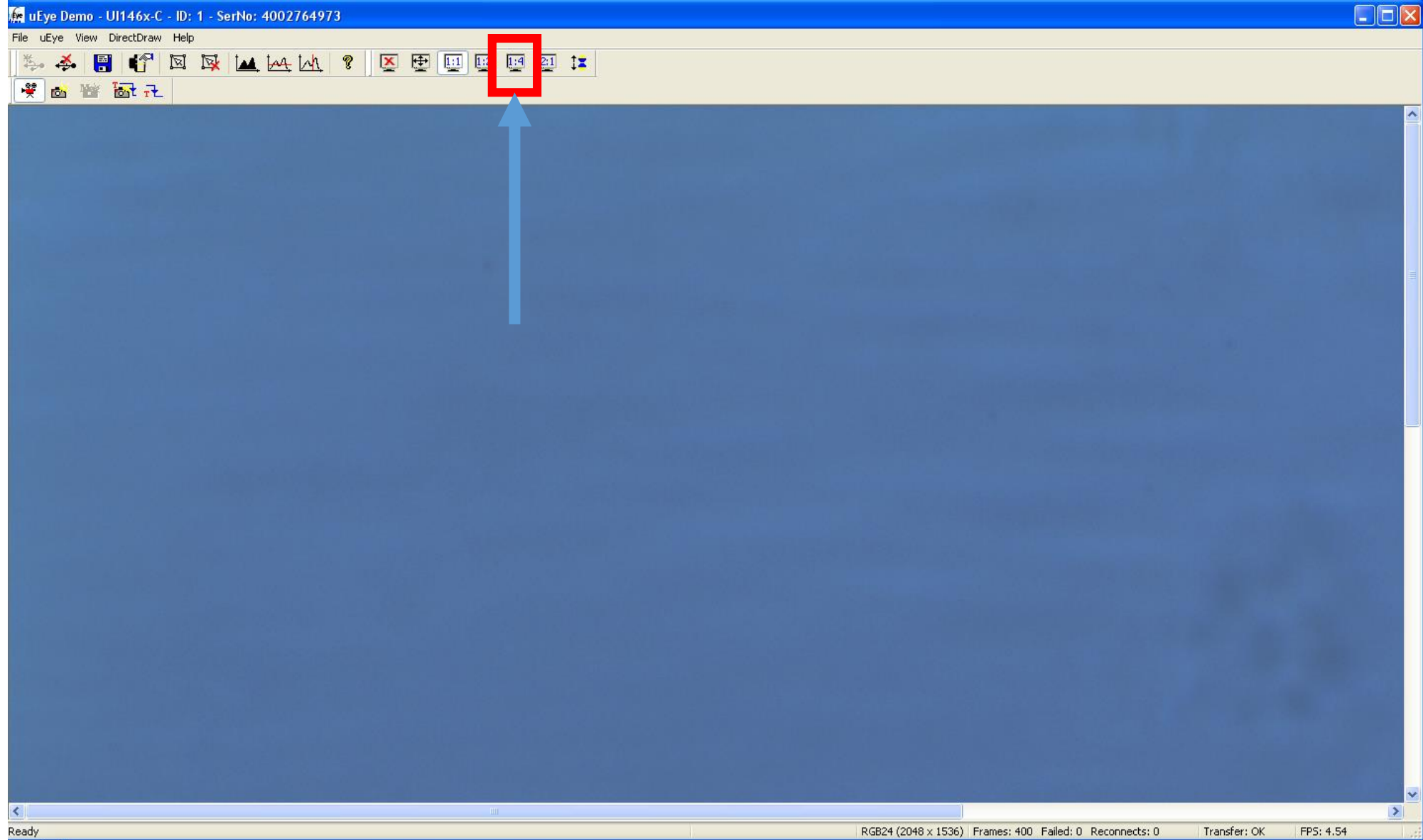


uEye

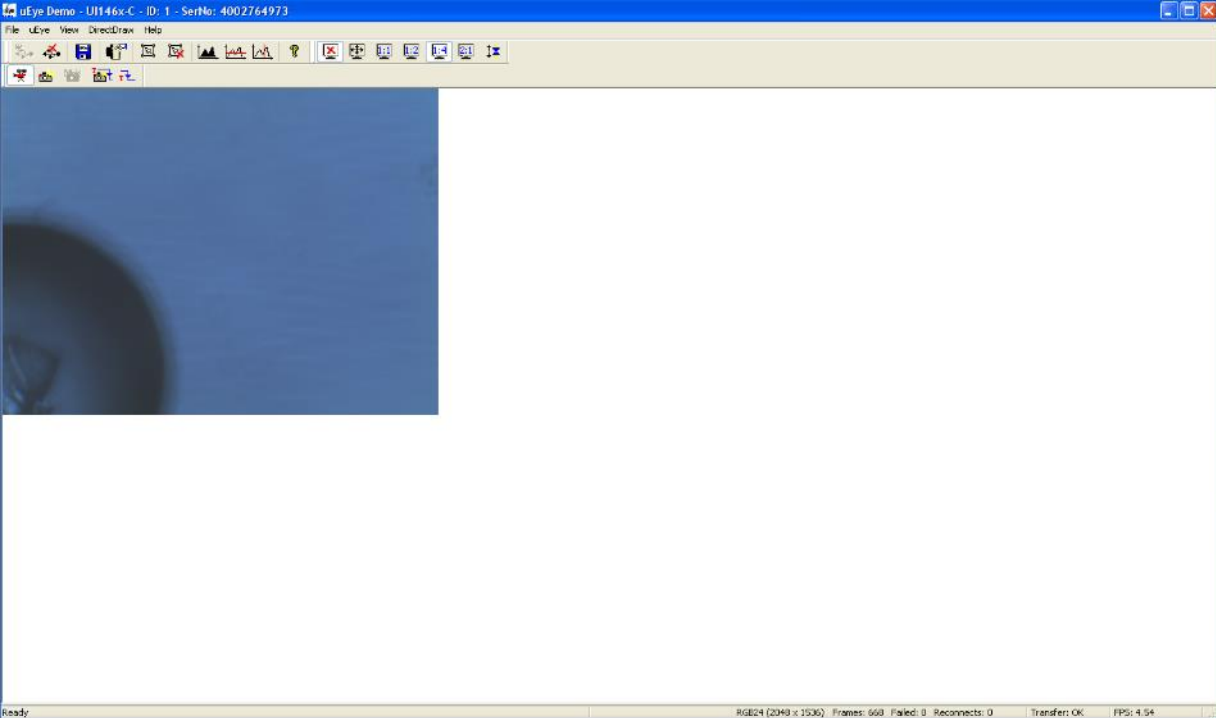


OPEN UEYE BY CLICKING THE SHORTCUT ON THE DESKTOP.
SELECT THE USB ICON.





YOU WILL RECEIVE AN ERROR MESSAGE IF YOU FORGET TO TURN ON THE LIGHT. IF YOU DO, TURN ON THE LIGHT AND CLICK THE ICON AGAIN. NOW SELECT THE 1:4 RATIO SO YOU CAN USE THE UV IMAGING SOFTWARE CONCURRENTLY.



(1) DO NOT use within 20 minutes of previous use

(2) RECORD USAGE on login sheet next to instru

(3) DO NOT make changes in software settings ur

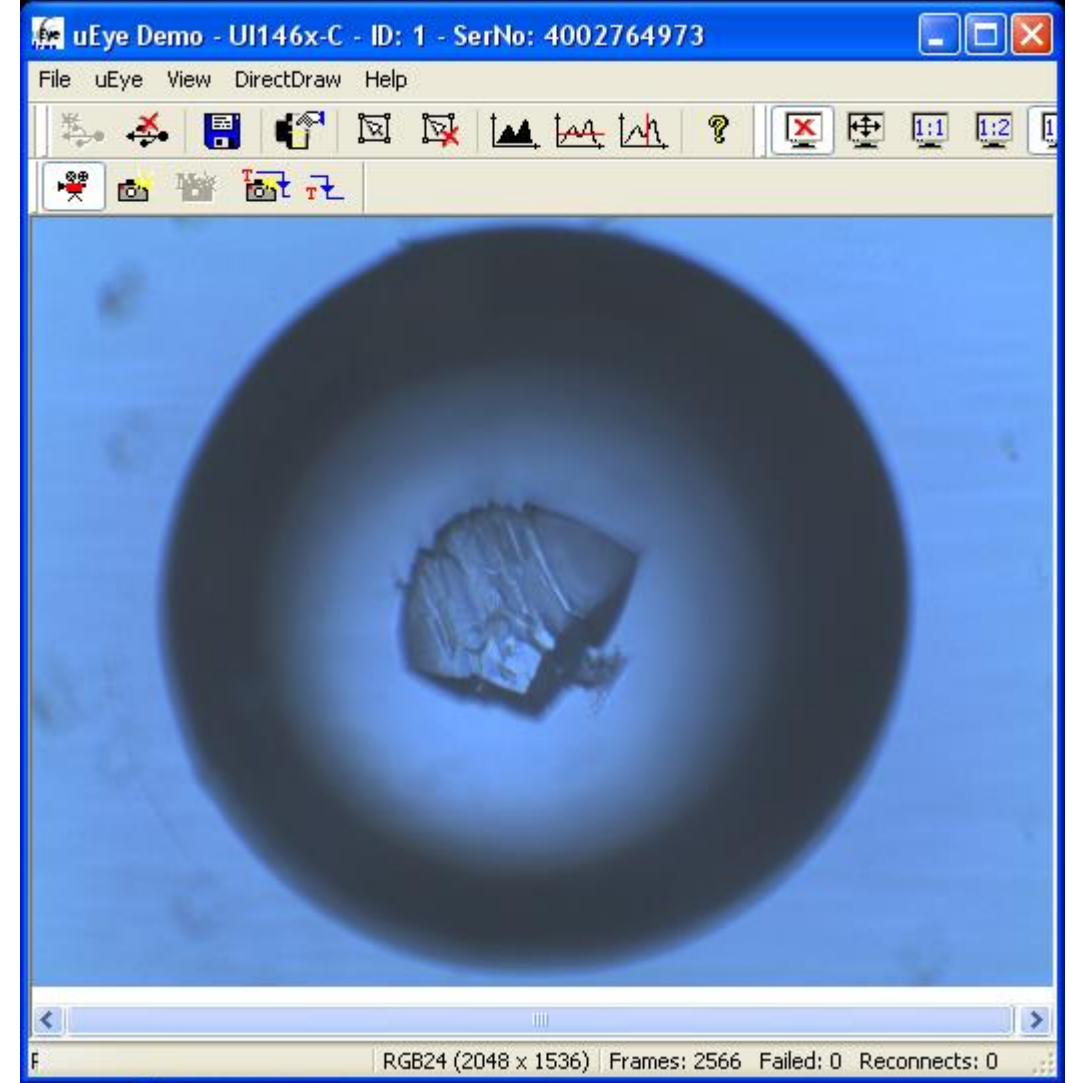
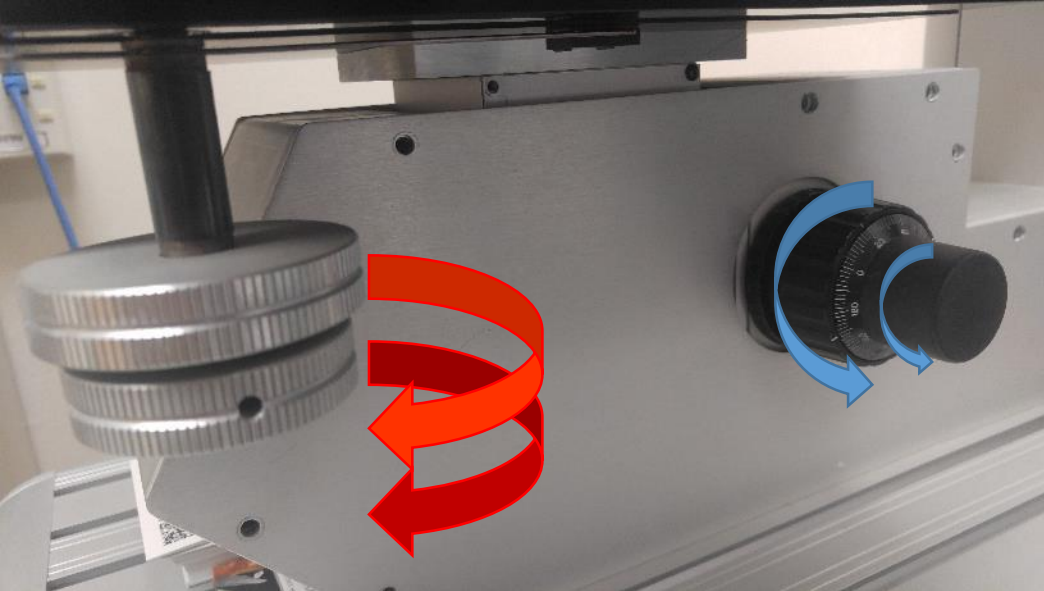
(4) When you are done, turn off the follwong three

1. Mercury Bulb
2. Hamamatsu Camera Controller
3. LED Bulb

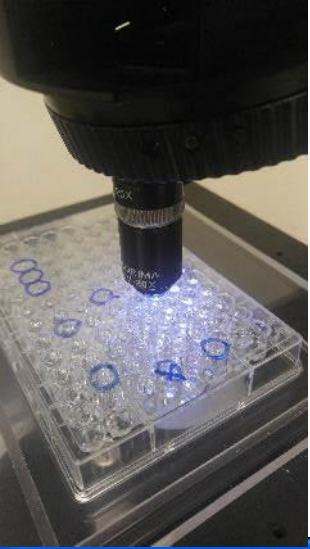
(5) Call or text MICHAEL COLLAZO if you do not know what to do (805) 982-0 (text preferred)



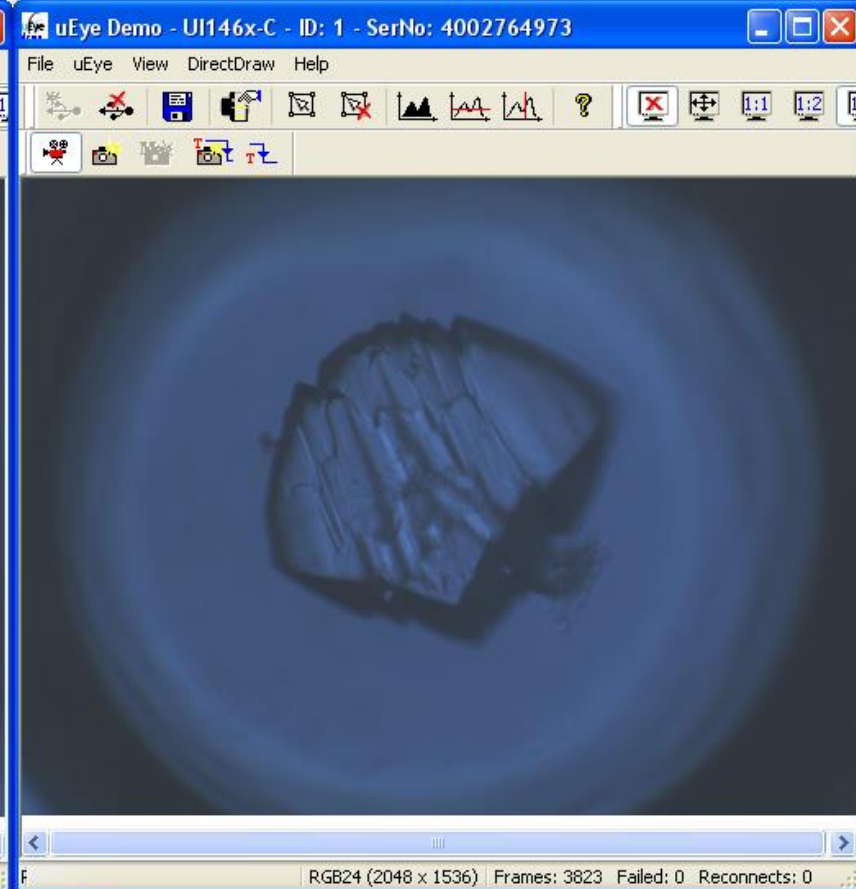
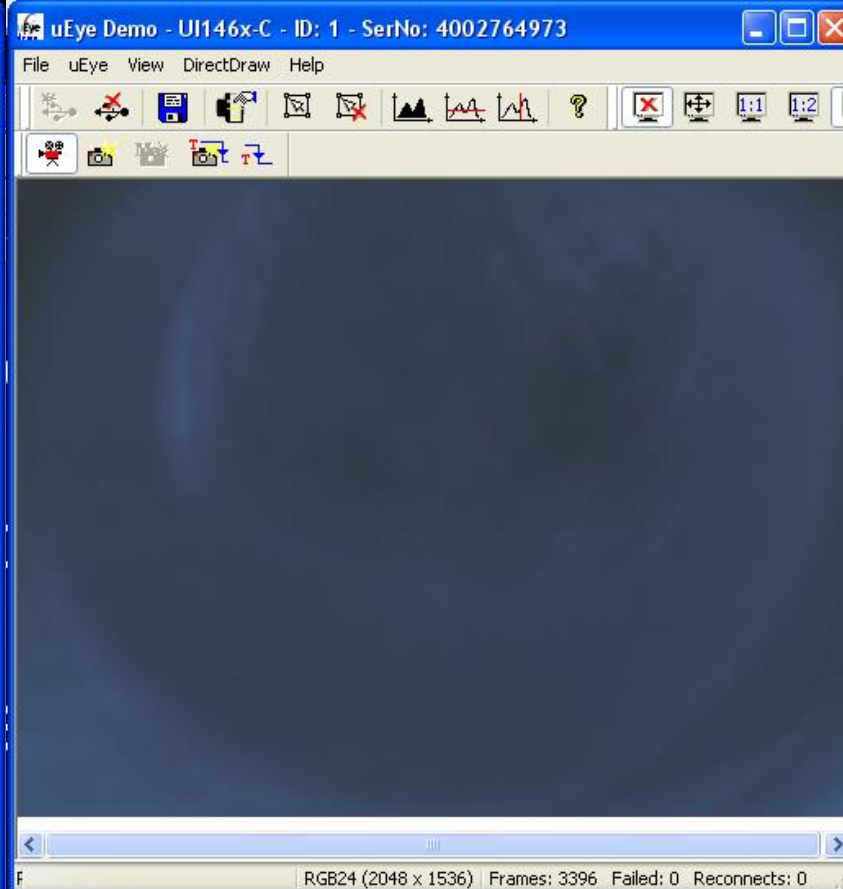
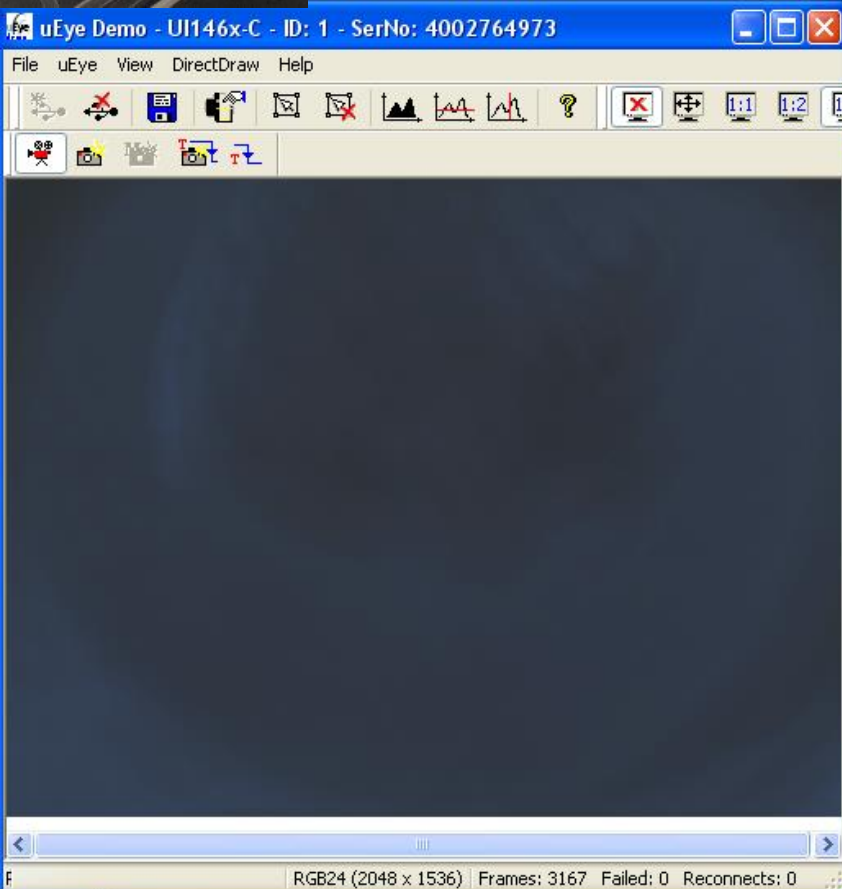
RESIZE THE WINDOW TO THE SIZE OF THE FIELD OF VIEW.
MOVE THE WINDOW TO THE RIGHT OF THE DESKTOP.

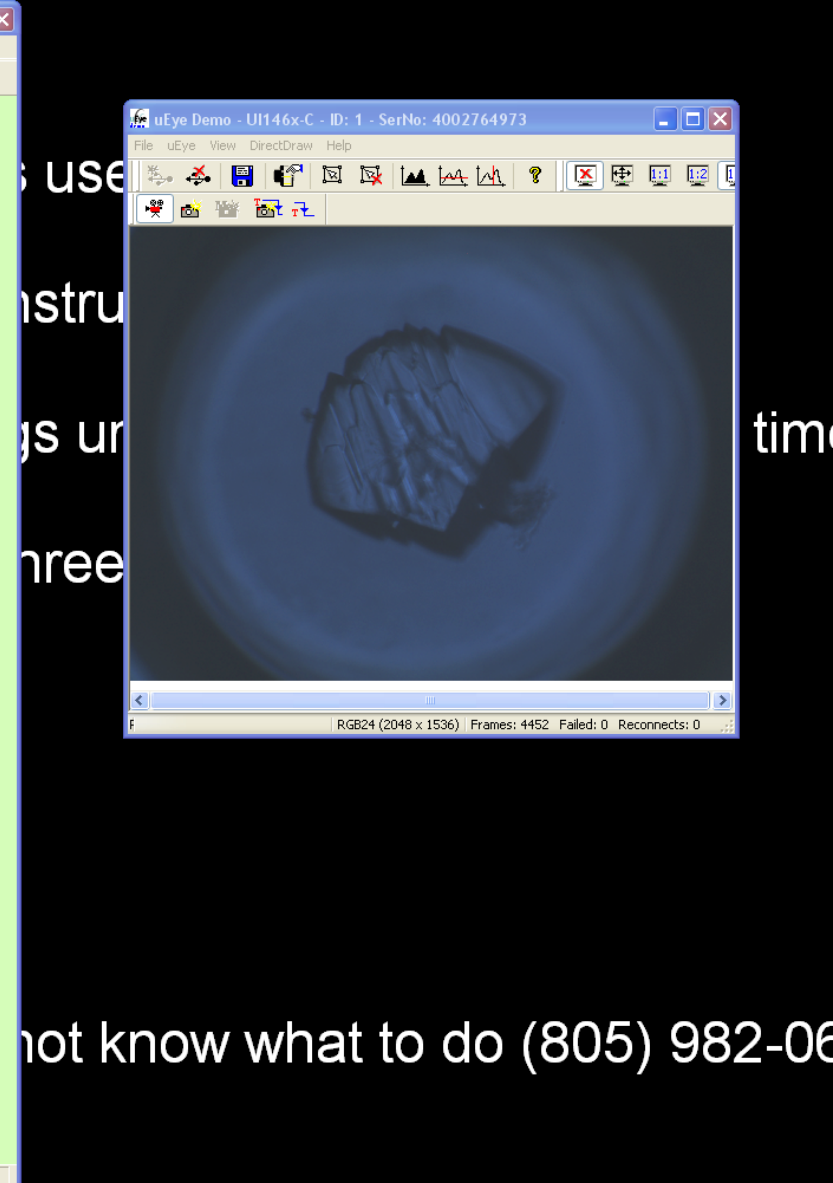
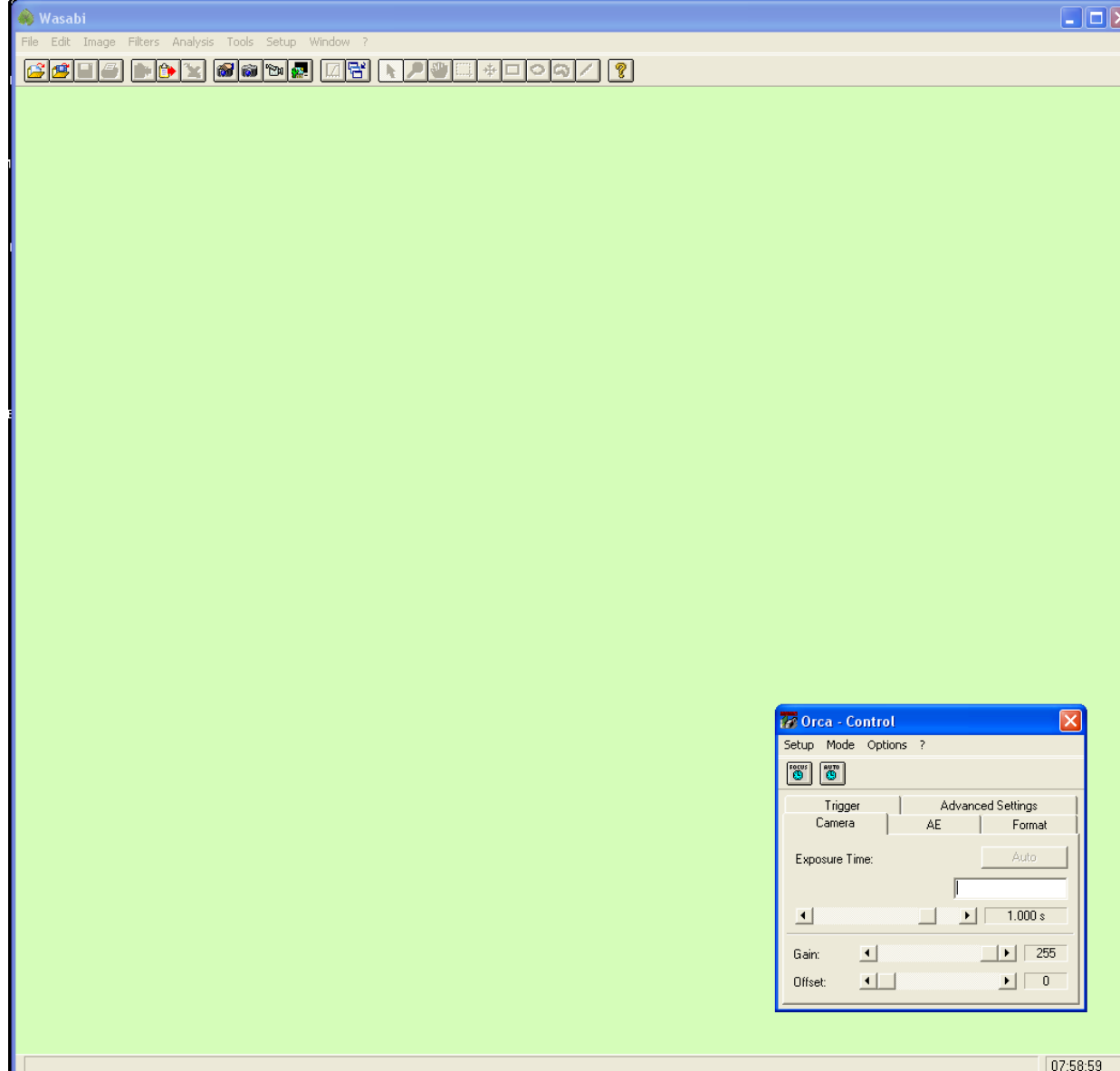


USE THE TWO MANUAL **WHEELS** (XY) ON THE MICROSCOPE STAGE TO CENTER YOUR DROP.
USE THE MANUAL **ADJUSTMENT** (COURSE AND FINE) TO FOCUS.
ADJUST LED INTENSITY IF NECESSARY USING THE MANUAL KNOB.
GO SLOWLY TO AVOID HITTING YOUR SAMPLE WITH THE OBJECTIVE.



SWITCH TO THE LARGEST OBJECTIVE. THE IMAGE WILL DARKEN.
TURN THE LED DIAL TO 100%.
RE-FOCUS THE MICROSCOPE AND CENTER YOUR OBJECT.
TO SAVE AN IMAGE SELECT "FILE" THEN "SAVE".





OPEN WASABI BY CLICKING THE WASABI SHORTCUT ON THE DESKTOP. IF YOU DID NOT REMEMBER TO TURN ON THE HAMAMATSU CAMERA CONTROLLER A WHITE ERROR BOX WILL APPEAR.

CLOSE THE SOFTWARE AND TURN ON THE CONTROLLER IF THIS HAPPENS. REOPEN THE SOFTWARE.

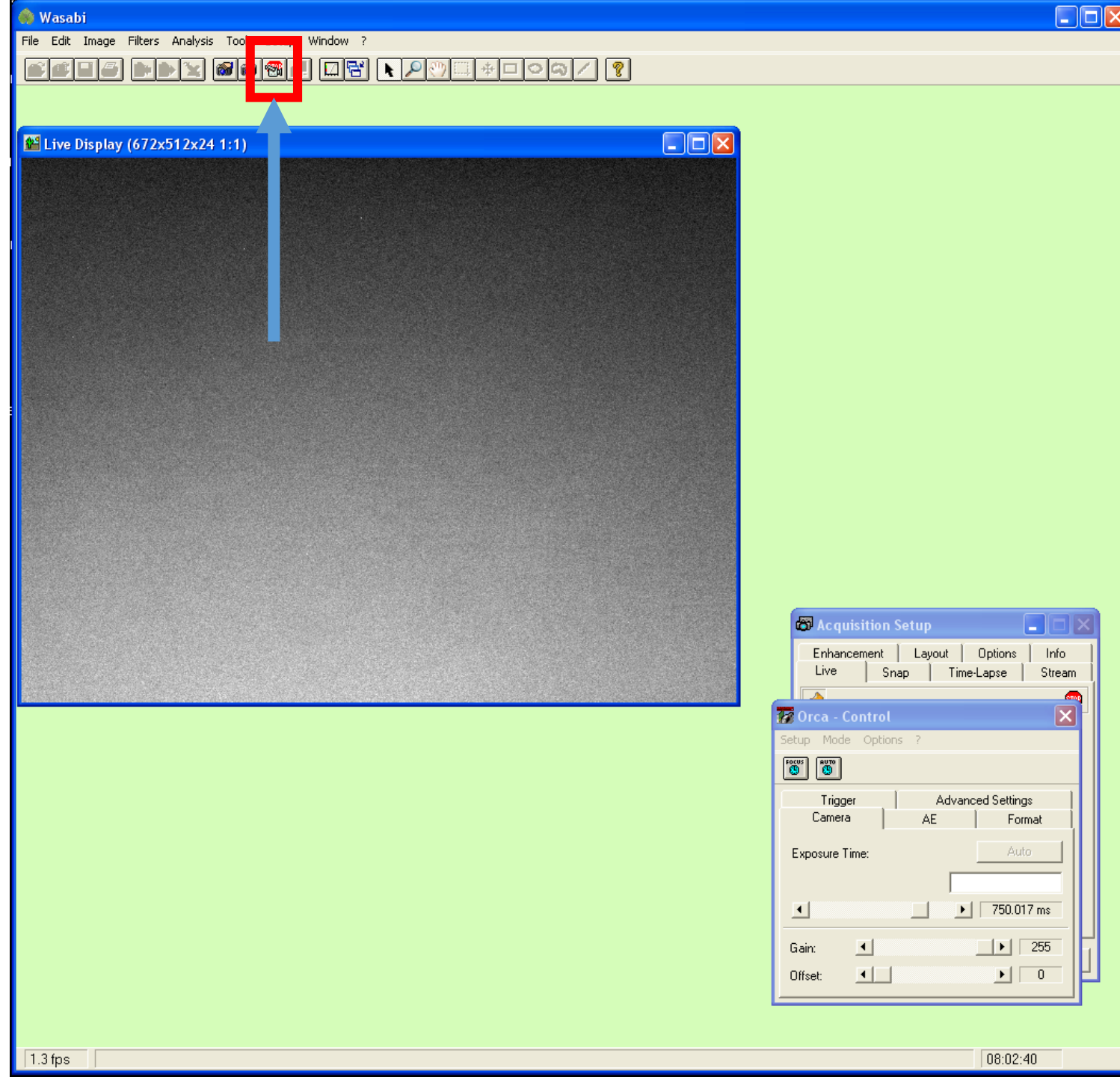
IF YOU HAVE DONE EVERYTHIGN CORRECTLY ONLY THE ORCA CONTROL BOX WILL APPEAR.

IN WASABI CLICK THE CAMCORDER ICON
A WINDOW WILL APPEAR WITH A FAINT
BACKGROUND THAT REFRESHES WITH EVERY
FRAME. IF YOU SEE A PURE BLACK BACKGROUND
CLOSE THE SOFTWARE AND REOPEN.

AT THIS POINT YOU SHOULD SEE NOTHING
BECAUSE THE MANUAL SHUTTER IS CLOSED. THE
MANUAL SHUTTER PREVENTS BLEACHING OF
CRYSTALS (UV DAMAGE). IT IS A GOOD IDEA TO
KEEP CRYSTALS FROM RECEIVING MORE THAN 30
SECONDS OF UV EXPOSURE.

**!! NOTE !! MANUAL SWITCH OPENS THE SHUTTER.
THE ORCA CONTROL IS ONLY FOR THE CAMERA.**

**IT DOES NOT CONTROL HOW MUCH UV YOUR
SAMPLE IS REALLY EXPOSED TO.**

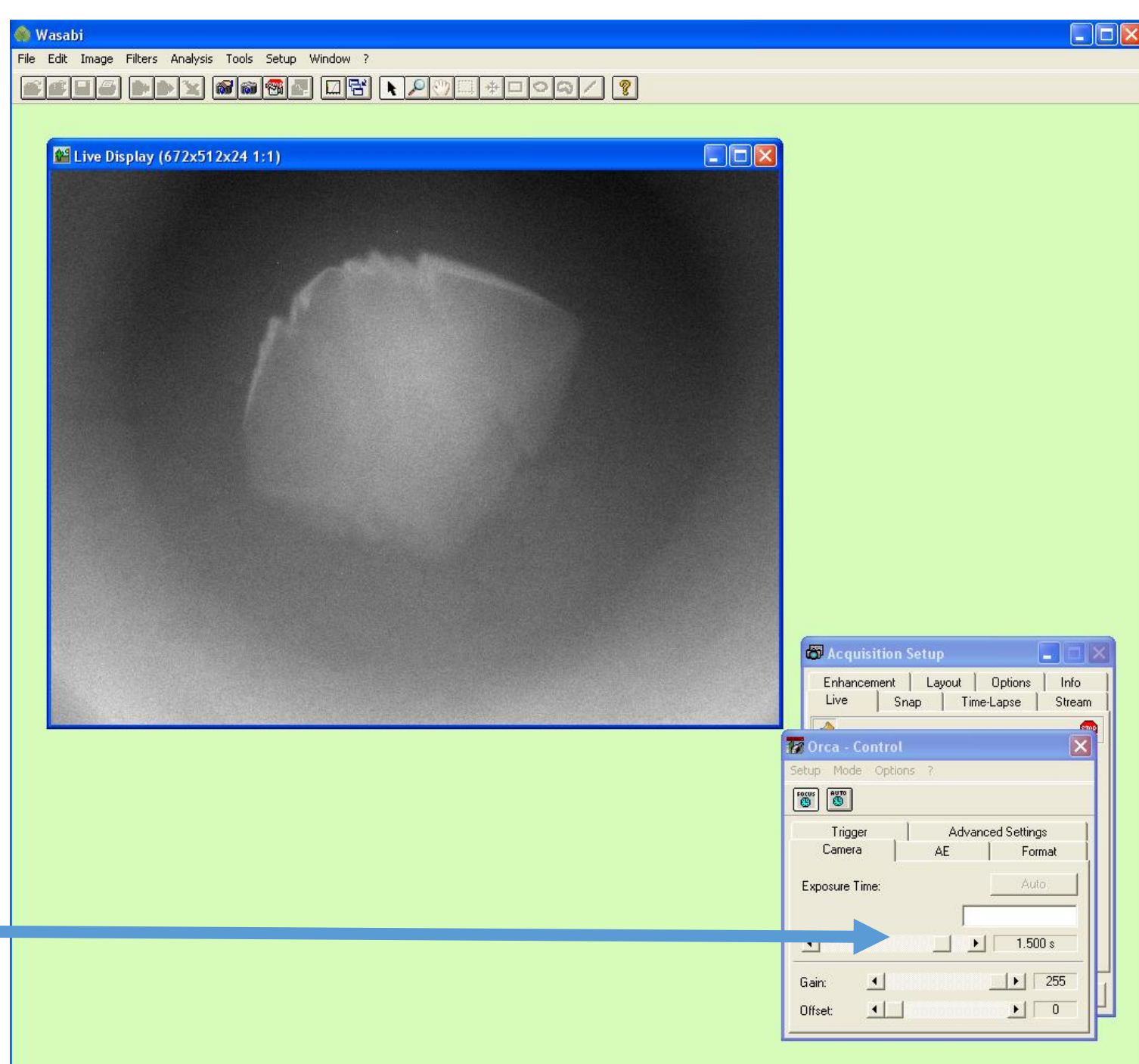




SHUT OFF THE LED LAMP BY ROTATING THE DIAL.
OPEN THE UV SHUTTER BY FLIPPING THE MANUAL
SWITCH. IT WILL ILLUMINATE WHEN OPEN. SAMPLE
IS NOW EXPOSED TO UV UNTIL YOU TURN IT OFF.

ADJUST THE ORCA CONTROL EXPOSURE TIME.
1.5 SECONDS IS A GOOD AVERAGE VALUE.
SMALL CRYSTALS WILL NOT BE ABLE TO BE
RESOLVED FROM BACKGROUND IN MANY CASES.
YOU MAY INCREASE UP TO SEVEN SECONDS OF
EXPOSURE IF NEEDED. LARGE CRYSTALS MAY FLOOD
THE CAMERA AND MAY REQUIRE ms EXPOSURE.

DO NOT CHANGE OTHER SETTINGS.

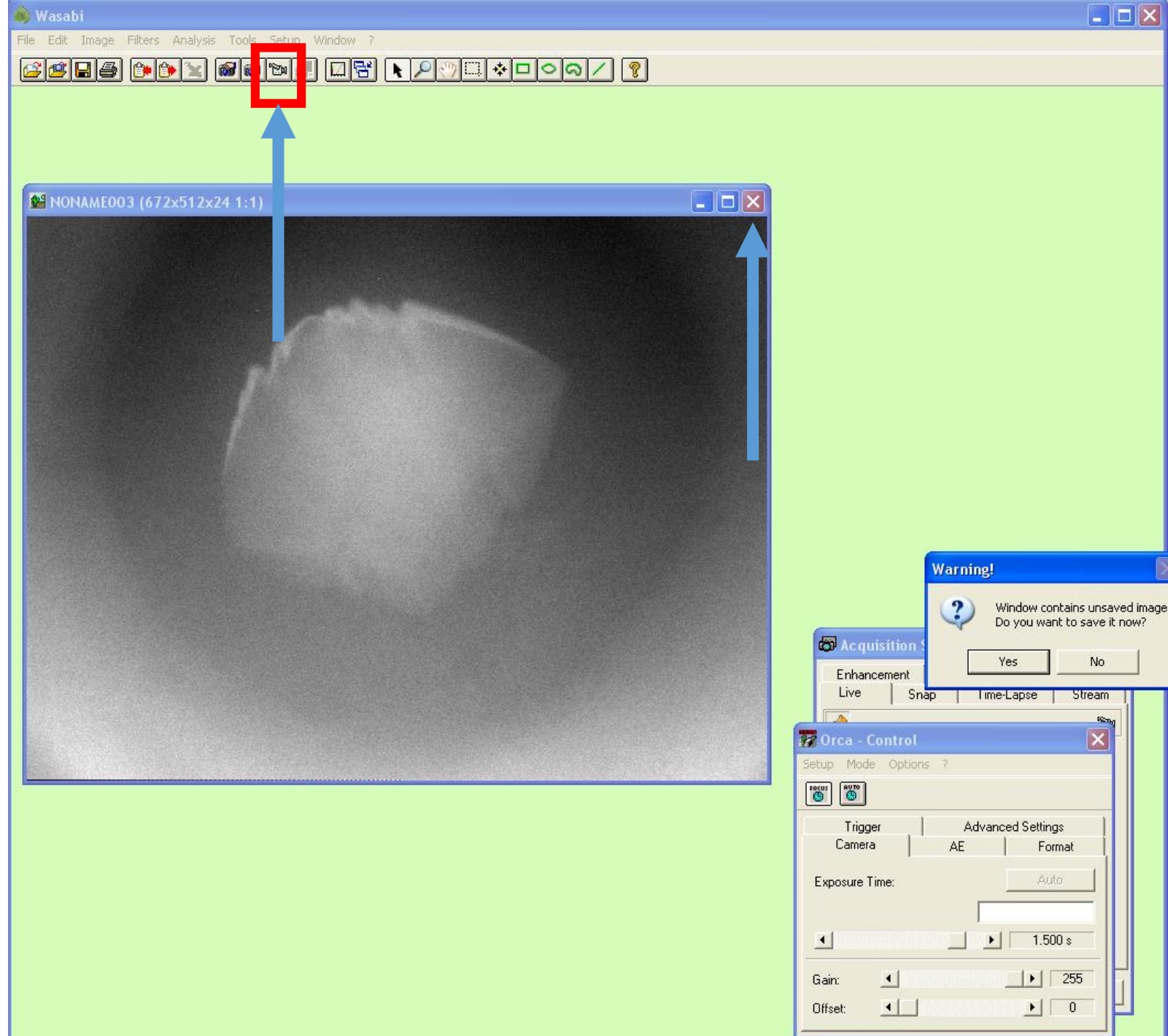


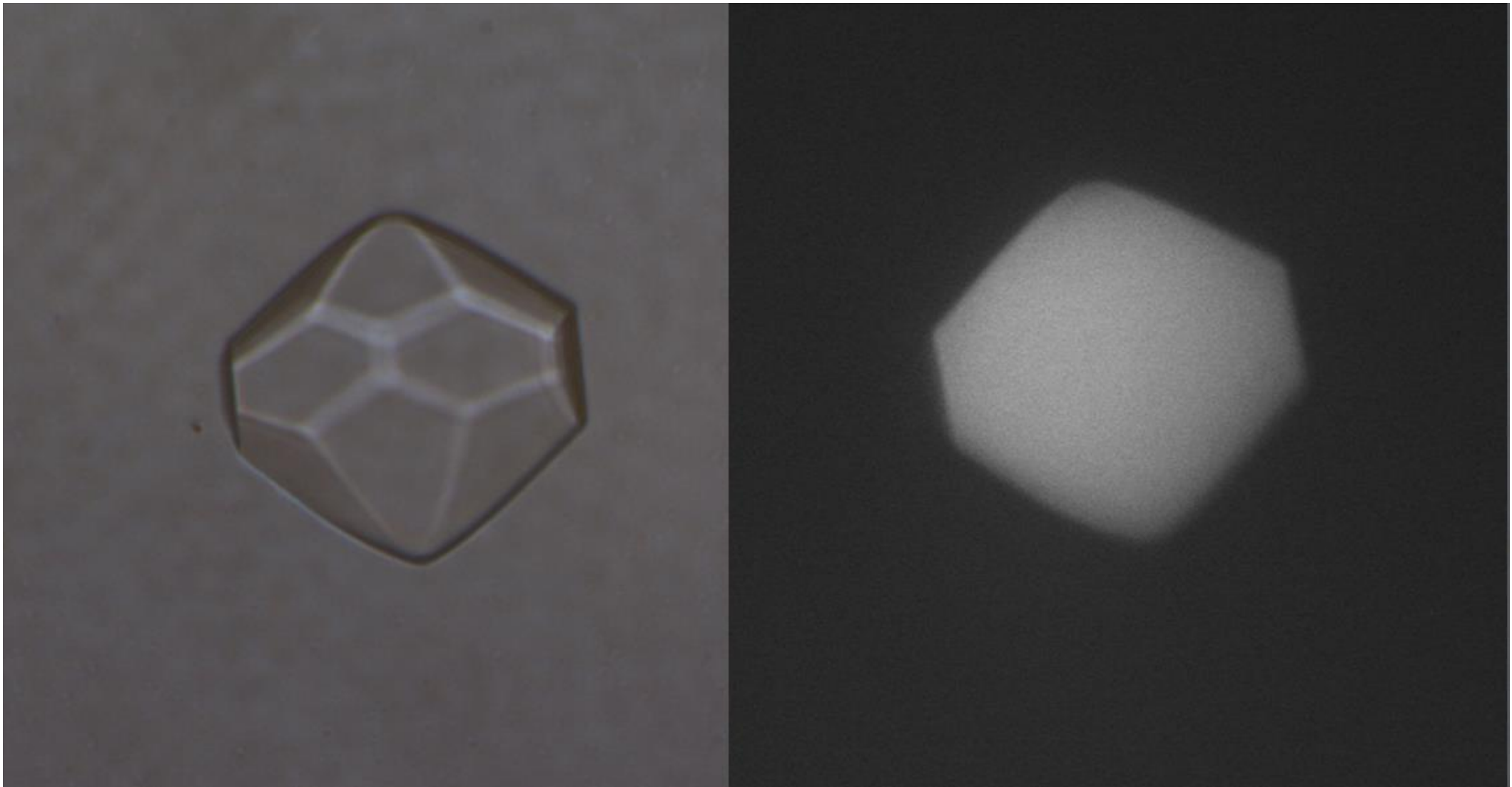
AFTER YOU ARE SATISFIED WITH THE EXPOSURE
WAIT FOR A SINGLE FRAME TO APPEAR AND
CLICK THE CAMCORDER ICON AGAIN. AN
IMAGE WILL BE TAKEN.

FLIP THE SHUTTER TO THE OFF POSITION AFTER
THE IMAGE APPEARS. DO NOT FORGET TO DO
THIS OR YOU WILL DAMAGE YOUR CRYSTAL.

TO SAVE THE IMAGE, ATTEMPT TO CLOSE IT BY
CLICKING THE X ICON. A DIALOGUE BOX WILL
APPEAR AND ALLOW YOU TO SAVE IT IN THE
FOLDER OF YOUR CHOOSING.

IMAGES ARE ERASED AFTER A MONTH. MOVE
THEM FROM THE DRIVE TO A PERMANENT
LOCATION IF YOU WANT TO KEEP THEM.





REPEAT FOR AS MANY CRYSTALS AS YOU ARE INTERESTED IN VIEWING. DO NOT WASTE LAMP HOURS.
WHEN YOU ARE DONE CLOSE WASABI AND UEYE.
MAKE SURE UV SHUTTER AND DIAL ARE CLOSED.

!! MOST IMPORTANTLY !!: TURN OFF MERCURY BULB AND HAMAMATSU CAMERA



MAKE SURE UV SHUTTER AND DIAL ARE CLOSED.

**!! MOST IMPORTANTLY !!: TURN OFF MERCURY BULB AND HAMAMATSU CAMERA.
YOUR PI WILL BE CHARGED FOR THE LAMP IF YOU FORGET.**

<https://www.fishersci.com/shop/products/ush-102d-mercury-bulb-100w/nc0075362>

Clubb / Chris	04/11/18	6:43pm	6:50pm	72.1-72.2	✓✓
Clubb / Chris	04/13/18	1:50pm	1:58pm	72.2-72.4	✓✓
Clubb / Chris	04/18/18	6:33pm	6:38pm	72.4-72.5	✓✓
Justin / Yeates	04/24/18	10:00 AM	10:10 AM	72.5-72.5	✓✓
Kyle / Yeates	4/26/18	2:20 p.m.	2:40 p.m.	72.6-73.0	✓✓
Mcaghan / Bowie	4/26/18	3:50pm	4:10pm	73.1-73.4	✓✓
Mark / Yeates	5/1/18	9:50	9:55	73.4-73.5	✓✓
Alan / McEvoy	5-1-18	10:50	10:55	73.5-73.6	✓✓
Justin / Yeates	5.4/-18	2:45	2:55	73.6 73.8	✓✓
Collazo	5/10/18	6:30 AM	6:35 AM	74.0-74.2	✓✓

Do not turn off the computer

LOG OFF OF THE COMPUTER. RECORD THE END TIME, FINAL LAMP HOURS, AND INDICATE WITH CHECKMARKS WHETHER THE UV AND CCD (HAMAMATSU CAMERA CONTROLLER) IS TURNED OFF.

CONGRATULATIONS! YOU HAVE USED THE INSTRUMENT CORRECTLY AND HOPEFULLY GOTTEN USEFUL RESULTS.