

# Micralyne $\mu$ TK SOP

June 26, 2018

For help with any of the steps, refer to the user guide.

## Pre-operation:

- 1) Confirm that the electrical and data cords are connected properly.
- 2) Turn on the  $\mu$ TK by hitting the switch right above the logo on the high voltage power supply.
- 3) Turn on the Computer 296-9 (Should be Windows XP).
- 4) Double click the "shortcut to  $\mu$ TK 12" icon on the desktop on the right side.
- 5) Confirm the visual lens is the current viewing option (page 3).
- 6) Warm up the laser for at least 5 minutes by turning it on (page 12).
- 7) Prepare the microfluidic chip of your choosing.
  - a. Current methodology is to use a vacuum tube on the wells to prime
- 8) Turn off the laser.
- 9) Swap the visual lens to the PMT (viewing option).
- 10) Set the microfluidic chip in the channel in the  $\mu$ TK (top).
- 11) Lower the electrode array such that they are touching fluid in the wells.
- 12) Confirm that the electrode array is not warping the microfluidic chip (move array up and down and confirm the chip is not bending in response).
- 13) Close both lids of the  $\mu$ TK.

## Operation:

Refer to the User Guide for information on how to create/modify a  $\mu$ TK control program.

- 14) Confirm correct program is shown on the GUI.
- 15) Press the "Load" button to download the program to the control board.
- 16) Press the "Run" button to start the downloaded program.
  - a. There will be a warning if the downloaded program does not match the one shown on the GUI.
- 17) Let the program run to completion
  - a. During the run, one can abort the run by clicking on the "ABORT RUN" button or pressing "Esc". One can also skip to the next step by clicking on the "NEXT STEP" button or pressing "PgDn".

## Analyzing Data:

Refer to the User Guide

Can click and drag the charts in order to adjust the ranges. Can zoom to fit the X and Y axis. Right clicking will pull up additional menus.