

# **Laurell WS-650 Spin Coater SOP**

Last Updated: Haley Holcomb 1/4/2023

## **Safety**

- Check with lab staff before using the mixer for any purpose other than spin coating PDMS or polyurethane polymers.
- Never spin flammable materials
- Never disassemble or modify this unit.
- Do not use the unit under the following circumstances: -In a volatile atmosphere or where gas or steam is present or around flammable substances.
- Do not process aggressive chemicals which if spilled could corrode the mixer.
- Do not open the lid during operation.
- Read the manual before using the spinner (link on lab website – [microfluidics.cnsi.ucsb.edu](http://microfluidics.cnsi.ucsb.edu)).
- Read the MSDS sheet for the material that you are spinning.
- Check with lab staff if you have any questions before using the tool.

## **Operating Procedures**

1. Reserve this tool through FBS under “PDMS Tools”
2. When you arrive, ensure that CDA and vacuum are functional and that the spin-coater bowl is lined with paper towels.
3. Program or select your desired recipe (Steps, Spin Speed, Acceleration, Spin Time) and an appropriate chuck adapter, if needed.
4. Place your substrate, centered, on the chuck and then press the 'Vacuum' button.
5. Dispense your resin onto your substrate, try to use as little as necessary for a uniform coating.
6. Close the lid, then run your recipe.
7. When the recipe is complete, open the lid, turn off the vacuum by pressing the 'Vacuum' button again, and retrieve your coated substrate.
8. Repeat for as many samples as required.
9. When finished, if paper towel liners are very dirty, please replace them. Thank you!

## **Notes**

- An attachment chuck for small substrates is in the spin coater tool container by the spinner.
- Do not modify the standard recipes. There are two recipes User 1 and User 2 that you may modify.

- Check with lab staff if you would like a new recipe programmed permanently on the machine if you are having trouble programming (it's not difficult, but the user interface isn't intuitive. Refer to the manual for programming instructions.
- Clean any spills immediately.
- If you notice a problem with the tool, unplug it, notify lab staff, and put a note on the tool describing the problem.