## **NANONUGGET**

Wafer protection using blue sticky tape for spin-coating PDMS

Robert Lupoiu, Chenkai Mao, Yixuan Shao

(Thank you to Peter Phan for demonstrating this process!)

June 11, 2022

When spin-coating PDMS on wafers in Exfab 155 Mavericks, you might notice that the underside of the sample becomes dirty with PDMS! Uncured PDMS is annoyingly difficult to clean, and curing the dirty sample would result in sticking to the vessel used for curing. This *nanonugget* describes a cheap and quick method that can be used to prevent this headache: protecting the underside edges of the wafer with *sticky blue tape*, which is stocked in SNF!

Although simple, it is not a trivial process to conceptualize, as the bare wafer back needs to be exposed to the spin coater vacuum chuck. Otherwise, layering the tape flat enough for it to maintain a vacuum seal with the chuck would be prohibitively difficult.

The process is completed in 5 steps:

- 1. Trace a circle on the back of *blue sticky tape* (stocked at SNF), that is slightly larger than the wafer being protected. The single wafer holder makes a great stencil.
- 2. Cut out the circle using scissors.
- 3. Cut a hole in the center of the circle cut-out, allowing for the vacuum chuck of the spinner to make contact with the underside of the wafer.
- 4. Carefully peel back the blue sticky tape.
- 5. Place the wafer on top of the blue sticky tape, and gently tap the edges using wafer tweezers to make sure the bond is tight.

All done. Happy spinning!

