CNC Start-up Procedure

1. Unlock the cabinet and turn on the power strip located inside
2. Power on the CNC using the red toggle switch located on the back of Shopbot toward the wall
3. Be sure the emergency button is disengaged on the handheld control (¼ turn counterclockwise will “pop” it out)
4. Check for empty collet/nut (It’s okay to run the warm-up with a bit in place)
5. Engage the spindle power on handheld control by turning the key to the on position
6. Power on the computer and launch Shopbot control software (If the computer, for whatever reason, was on when you arrived at the machine, it **MUST** be rebooted)
7. Run the spindle warm-up routine (shortcut keystroke: C5 in “full mode”) Remember to hit the OK button once the spindle starts
8. Spindle warm-up takes 9 minutes, during which you can’t operate the CNC (It is okay to leave the CNC unattended during the spindle warm-up, if and only if there is not a bit in the collet)
9. **Check the popup window’s suggested spindle speed.** Adjust the frequency on the inverter to match hertz value shown.
10. Zero the X & Y axes using the button on the red control panel
11. *Optional: Offset the X&Y zero points to accommodate straight edges on the CNC or a new location for your XY origin*
12. Setup your material and hold-downs
13. Install needed tooling
14. Zero the Z axis to your work (or table, depending on your job setup) using the button on the red control panel and the provided touch-off plate (check that the circuit is closing by touching the touch-off plate to the bit and confirming on the control software the corresponding dummy light is turning on/off)
15. Have an instructor/aide review your setup and hold-downs **BEFORE** running your job
16. Turn on the dust collector/shop vac.
17. Run your job (“Cut Part” button, find your file, open it, press start, and follow on-screen prompts)
18. **Check the popup window’s suggested spindle speed.** Adjust the frequency on the inverter to match the hertz value shown.
19. Be ready to stop the job immediately by hovering near the emergency stop button for the duration of the job (**NEVER LEAVE A CUTTING CNC UNATTENDED)**

Post milling clean-up

1. Turn off the dust collector/shop vac.
2. Disengage the spindle power key on the handheld control
3. Eject your thumb drive from the control computer and take it with you
4. Remove work and any hold-downs installed
5. Remove your bit from the spindle
6. **Clean up: Vacuum the table and the area around the CNC, including inside the cabinet if it was open during your CNC job; Remove any special hold-downs you have installed** (Make it cleaner than when you found it, *please!*)

Turning off the CNC

1. Close the Shopbot software
2. Turn off the CNC by flipping the red toggle switch down at the back of the CNC.
3. Shut down the control computer (**DO NOT** just turn off the power strip! Wait for the PC to be fully shut down before turning off the power strip!)
4. Ensure all tools and bits are put away
5. Close and lock the cabinet