

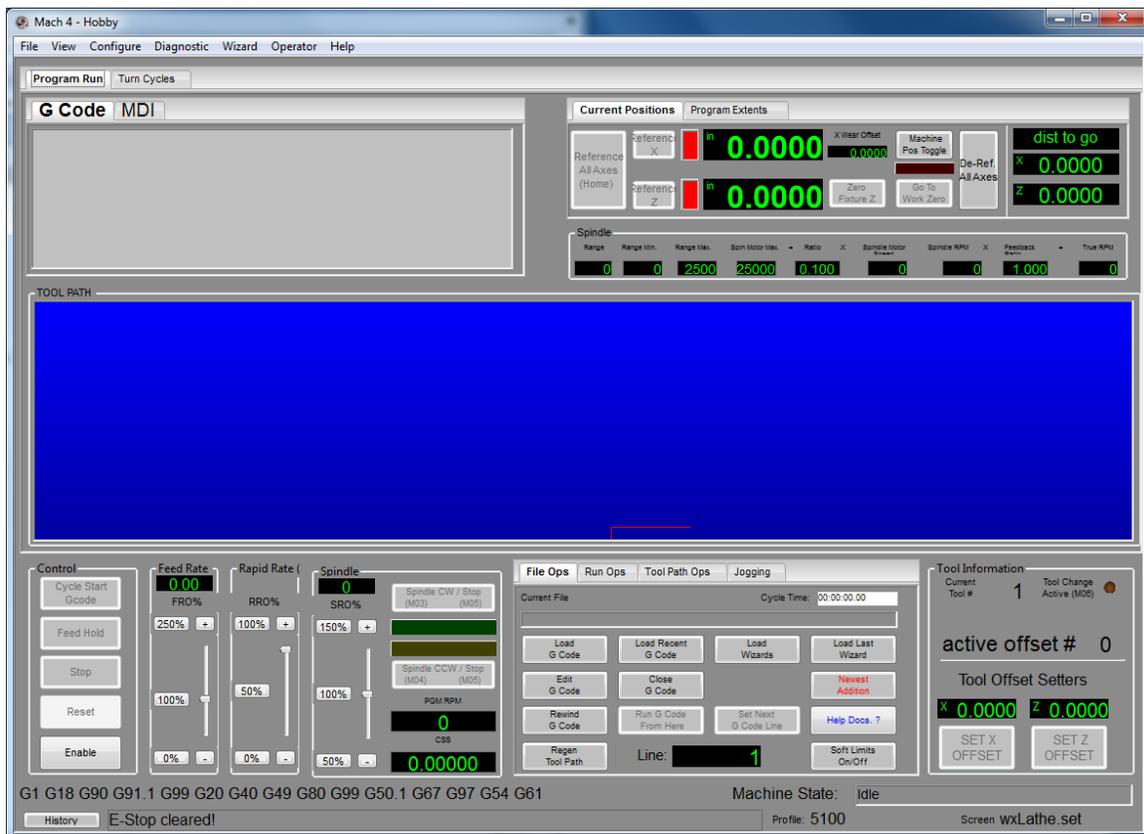
Initial Startup

Note: Already setup tool one X offset per Ron Ginger video. In lathe diameter mode (config > control > defaults).

Power on Pokeys box

Start Mach4 Loader and select 5100 profile.

Startup screen:



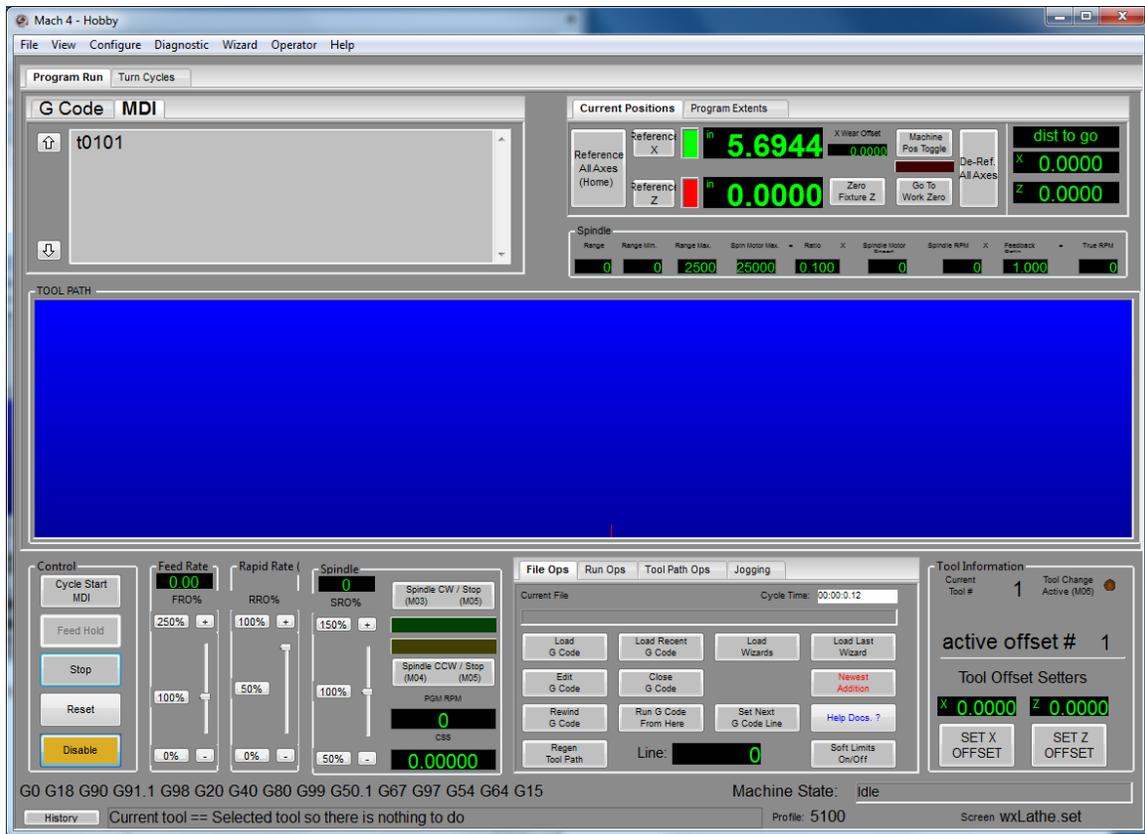
Enable; lower left.
Reference X.

The screenshot displays the Mach 4 Hobby software interface. At the top, there is a menu bar with options: File, View, Configure, Diagnostic, Wizard, Operator, Help. Below the menu bar, there are tabs for 'Program Run' and 'Turn Cycles'. The main interface is divided into several sections:

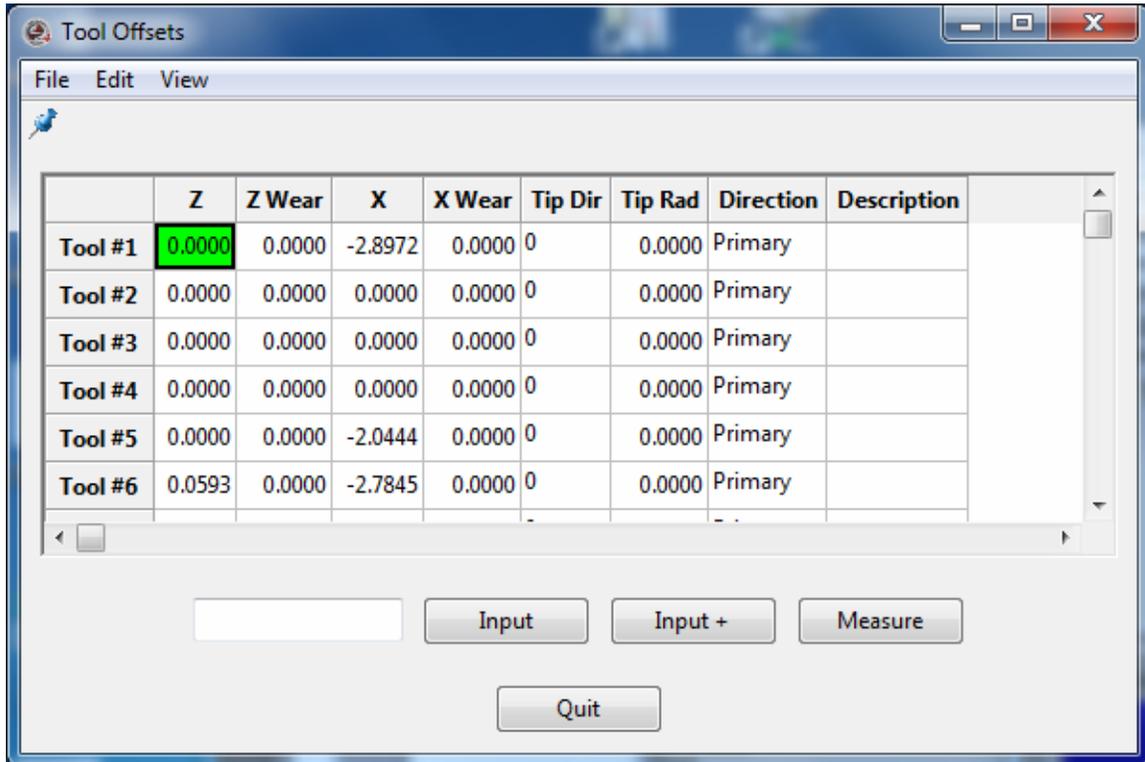
- G Code / MDI:** A large text area for entering G-code or Manual Data Input.
- Current Positions / Program Extents:** A panel showing reference positions for X and Z axes. X is at -0.1000 and Z is at 0.0000. It also includes buttons for 'X-Wear Offset', 'Machine Pos Toggle', 'De-Ref All Axes', 'Zero Fixture Z', and 'Go To Work Zero'.
- Spindle:** A panel showing spindle parameters: Range (0), Range Min (0), Range Max (2500), Spin Motor Max (25000), Ratio (0.100), Spindle Motor (0), Spindle RPM (0), Feedback (1.000), and True RPM (0).
- TOOL PATH:** A large blue area representing the tool path.
- Control:** A panel with buttons for 'Cycle Start Gcode', 'Feed Hold', 'Stop', 'Reset', and 'Disable'. It also features sliders for Feed Rate (FRO%), Rapid Rate (RRO%), and Spindle Speed (SRO%).
- File Ops / Run Ops / Tool Path Ops / Jogging:** A panel with various operational buttons like 'Load G Code', 'Load Recent G Code', 'Load Wizards', 'Load Last Wizard', 'Edit G Code', 'Close G Code', 'Run G Code From Here', 'Set Next G Code Line', 'Help Docs?', 'Regen Tool Path', and 'Soft Limits On/Off'.
- Tool Information:** A panel showing 'Current Tool # 1', 'Tool Change Active (M06)', 'active offset # 0', and 'Tool Offset Setters' for X (0.0000) and Z (0.0000).

At the bottom of the interface, there is a status bar showing G-code lines (G92 G0 G18 G90 G91.1 G98 G20 G40 G49 G80 G99 G50.1 G67 G97 G54), 'Machine State: Idle', 'Profile: 5100', and a message: 'Limit switch X ++ tripped!'. The screen title is 'Mach 4 - Hobby' and the window name is 'Screen wxLathe.set'.

Select tool in MDI tab; upper left – t0101. Stands for tool one, tool offset one.
 “Cycle Start MDI”; lower left selects tool 1 offset 1. (Get an Estop condition. Punch physical Estop button, reset and then can “Cycle Start MDI”).



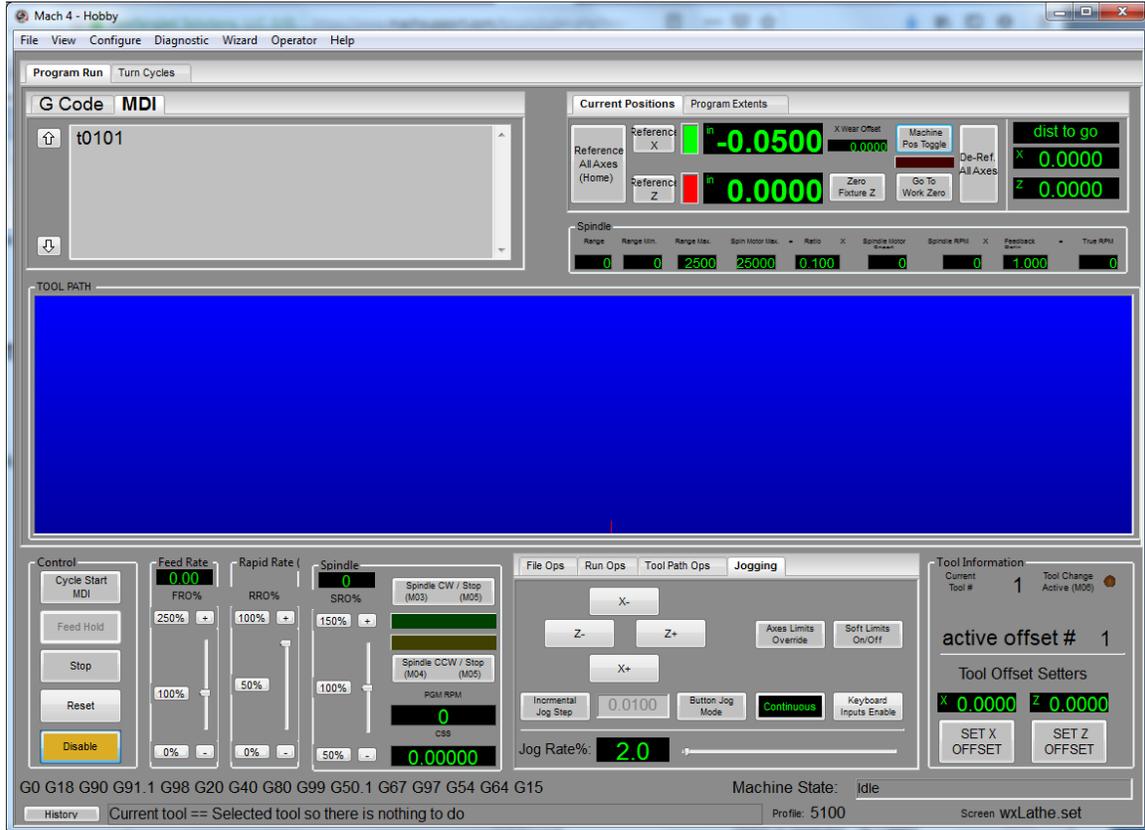
As info; tool offset table. (Ignore tool 5 and 6)



The screenshot shows a software window titled "Tool Offsets" with a menu bar (File, Edit, View) and a table of tool parameters. The table has columns for Tool #, Z, Z Wear, X, X Wear, Tip Dir, Tip Rad, Direction, and Description. The 'Z' value for Tool #1 is highlighted in green. Below the table are buttons for "Input", "Input +", "Measure", and "Quit".

| Tool # | Z | Z Wear | X | X Wear | Tip Dir | Tip Rad | Direction | Description |
|---------|--------|--------|---------|--------|---------|---------|-----------|-------------|
| Tool #1 | 0.0000 | 0.0000 | -2.8972 | 0.0000 | 0 | 0.0000 | Primary | |
| Tool #2 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0.0000 | Primary | |
| Tool #3 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0.0000 | Primary | |
| Tool #4 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0 | 0.0000 | Primary | |
| Tool #5 | 0.0000 | 0.0000 | -2.0444 | 0.0000 | 0 | 0.0000 | Primary | |
| Tool #6 | 0.0593 | 0.0000 | -2.7845 | 0.0000 | 0 | 0.0000 | Primary | |

Punch “Machine Pos Toggle” (Machine Position Toggle) yields this:



But tool 1 tip is ~ 1-3/16 from centerline.

“Go To Work Zero” puts tool 1 tip ~ 15/16 from end of round stock.