How to print a part with the 3DWOX1?

3DWOX Desktop icon

To make a 3D printed part, you need to:

> **STEP 1:** Create a GCODE file that's configured for the printer and filament type you will use
> **STEP 2:** Switch between FILAMENT (no Sindoh chip required) or CARTRIDGE (Sindoh chip required) loading options
> **STEP 3:** Load filament
> **STEP 4:** Select and print your file

STEP 1: CREATE A GCODE FILE

1.1. Make a part in SolidWorks

1.2. Export the part as an STL (using "save-as" and selecting the stl filetype)

1.3. Download 3DWOX Desktop from [Downloads | Sindoh 3D Printer | Unmistakable Sindoh](#) or use a campus computer

1.4. Import (or drag and drop) the STL file into the 3DWOX Desktop slicer app window

1.5. Under "**Settings**"-->"**Printer Setting**", select the printer you plan to use: "**3DWOX1**", or "**DP200**"

1.6. Under "**Mode**", check if you're in the "**Advanced**" or "**Easy**" mode.

    i)   If in **EASY** mode:

        (1) Under Settings, set Material in Cartridge 1 to PLA

        (2) Choose placement of support (None, Touching Buildplate, or Everywhere)

        (3) Choose the Support Pattern or leave it in the default "Zigzag"

        (4) Select from one of the four Quick Print Profile options and hit OK

    ii)   if in **ADVANCED** mode:

        (1) set Profile in Settings to "**Sindoh PLA**"

        (2) Chose the desired support type and bed adhesion

        (3) Adjust other settings (as needed) and hit OK

1.7. (Optional) Edit support material with the "**Support Edit Viewer**" (cylinder with pen icon): select the radius size and click in the darker blue part shadow to place support material. (Only add support if needed)
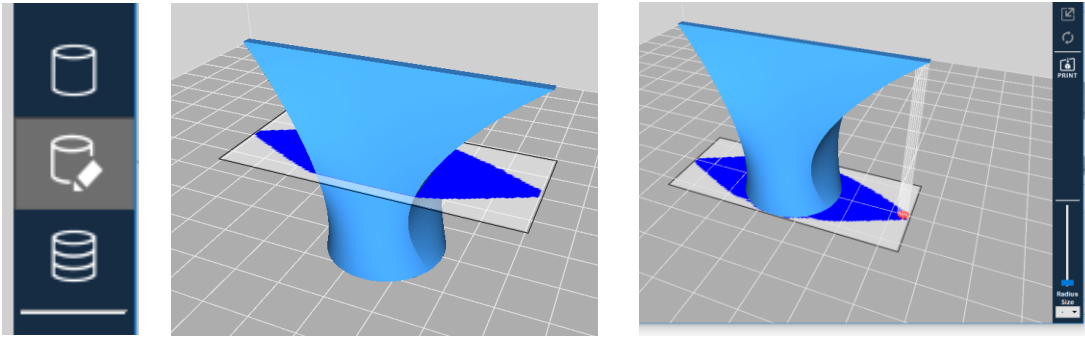
1.8. Build layers with the "**Layer Viewer**" (multi-layered cylinder icon) – this compiles the G-code
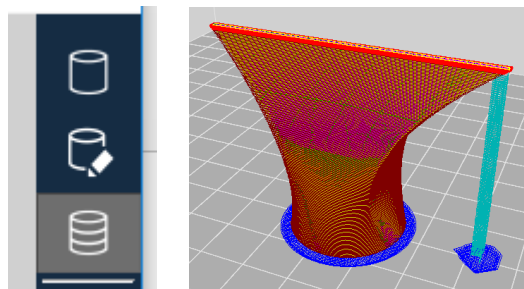
1.9. Use the slider to view individual layers and travel paths
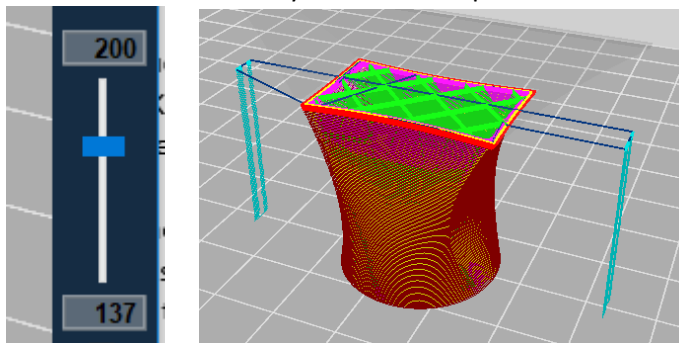
1.10.   Click "**File**"-->"**Save G-Code**".

1.11.   Put the G-Code on a thumb drive.

STEP 2: SWITCH BETWEEN FILAMENT AND CARTRIDGE LOADING

3DWOX1 printers can use cartridges or spools (w/o cartridge), depending on the mode they are in (*Open Source* Setting ON or OFF).

2.1. Figure out what mode it's currently in by looking at the touchscreen home page.

- If the 2nd option on the display reads "CARTRIDGE", you have to use a cartridge with a Sindoh chip.

- If the 2nd option on the display reads "FILAMENT", it's in OPEN SOURCE mode and can use a spool without a cartridge or a spool in a cartridge without a chip. Microchips are located on the end of the cartridge that gets inserted into the printer.

2.2. Change filament modes on the 3DWOX1 by entering the SETTINGS menu, toggling to the 4th screen and selecting OPEN SOURCE.

- Turn ON to print from a spool

- Turn OFF to print using a cartridge

STEP 3: LOAD FILAMENT

3.1. From the touchscreen home page, select FILAMENT or CARTRIDGE depending on the mode.

3.2. Follow on-screen instructions to load filament (see Step 2 if you need to change the filament loading mode).

STEP 4: SELECT AND PRINT YOUR FILE

4.1. Put thumb drive into the printer's usb port (front side, upper-right of printer)\

4.2. Using the touch screen, select "**Print**", select your file, and follow on-screen instructions to start the print.

4.3. Remove your thumbdrive when the icon indicates it is safe to remove.

Note: there will be a small icon in the lower right of the screen (it is supposed to be a usb stick with an arrow showing removal). If the arrow has an 'X' on it, the files are still transferring (leave it in); if the X has gone away, the files have finished transferring and you can safely remove the flash drive.

4.4. Watch the first layer or two to make sure the PLA adheres properly to the bed. Most issues happen early on in a print.

4.5. Come back after the part has finished, remove the flexible print bed from the printer. Allow the part time to cool.

4.6. While the part is cooling, use the touchscreen to unload filament under the "FILAMENT" option, following on-screen instructions, and removing the cartridge so the printer is ready for the next user.

4.7. Flex the bed to pop the part free from the surface. Avoid prying or peeling the part off the bed, especially with a hot bed to limit adhesive separation between the bed and bed sheet. This will help our print beds to last longer.

Note: If you arrive to the printer with a finished print that isn't yours, there is an extra print bed that can be swapped with the one that has a part on it. Set aside to allow recently printed part time to cool.