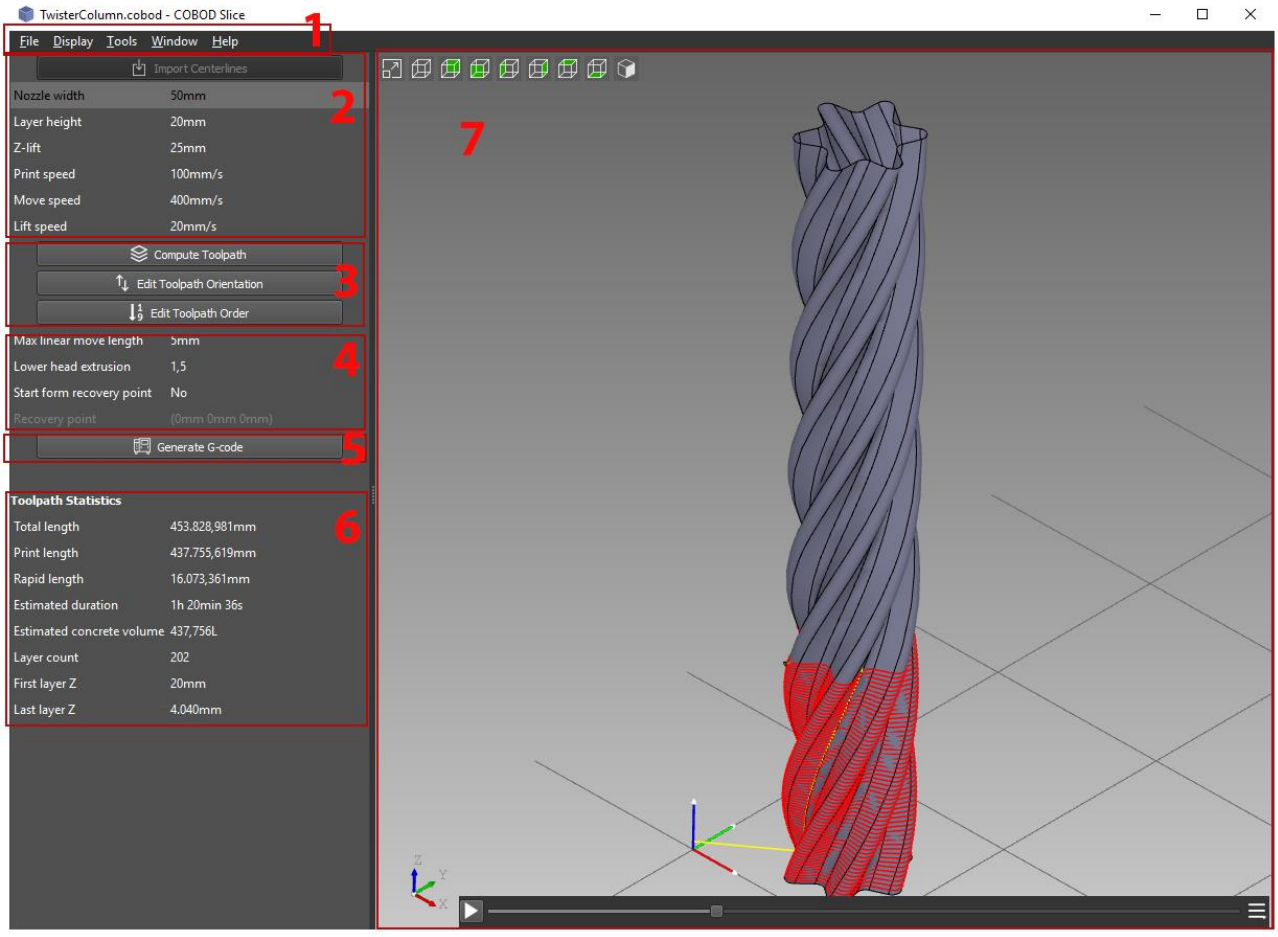
1 COBOD Slice

COBOD Slice is a software used to prepare 3D models from various CAD software to print with BOD2 printer. It generates G-code files, which in turn can be read and interpreted by the printer's web interface and control board.

Supported import file types:

- **.STEP / .STP**
- **.IGES / IGS**
- **.BREP**
- **.OCC**



1. Main menu
    a. File
        i. **New Project** – Start a new project with default slicing parameters
        ii. **Open Project** – Open an existing .COBOD project.
        iii. **Save** – Save .COBOD project
        iv. **Save as** – save .COBOD project as

v. **Export toolpath** – Export toolpath to directory.
vi. **Quit**

b. Display
i. **View mode**
ii. **Show / Hide features**
iii. **Zoom**

c. Tools
i. **Measure curves** – Measures the length of a selected curve in mm.
ii. **Save view to image** – Saves the current viewport view to an image.
iii. **Options** – Set color, mesh defaults, units and more.

2. Import and slice settings
   a. **Import Centerlines** – Import a 3D model of a supported file type. Model must represent centerlines of the object.
   b. **Nozzle Width** – Width of the current printer nozzle in mm
   c. **Layer height** – Height of each layer in mm
   d. **Z-lift** – The height to lift the printhead before each "travel" move.
   e. **Print speed** – Movement speed of printer when extruding material
   f. **Move speed** – Movement speed of printer when travelling (not extruding material)
   g. **Lift speed** – Speed of the Z-axis movement
3. Toolpath Manipulation
   a. **Compute Toolpath** – Computes the toolpath from the imported file using the settings above
   b. **Edit Toolpath Orientation** – Edit the direction of the printer-nozzle. Click a path to invert direction.
   c. **Edit Toolpath Order** – Edit the order in which different segments will be printed.
4. Additional settings
   a. **Max linear move length** – The maximum size of a linear line before it is split into smaller segments.
   b. **Lower head extrusion** – The amount of material to pre-feed when printhead is moving down after a travel move. Used to avoid gaps in concrete between layers and segments.
   c. **Start from recovery point** – Start slicing from a specific coordinate (X,Y,Z) in mm. Used to continue a print after an unplanned stop, reboot or power cycling of the machine.
   d. **Recovery point** – Coordinate of the exact point to start slicing from. Read the coordinate in Duet Web Control under "printer status" tab.
5. **Generate G-code** – Generate a G-code file, ready to upload and print via web control.
6. **Toolpath Statistics** – See the total print time, how many layers of printing, and estimated material usage for the print.