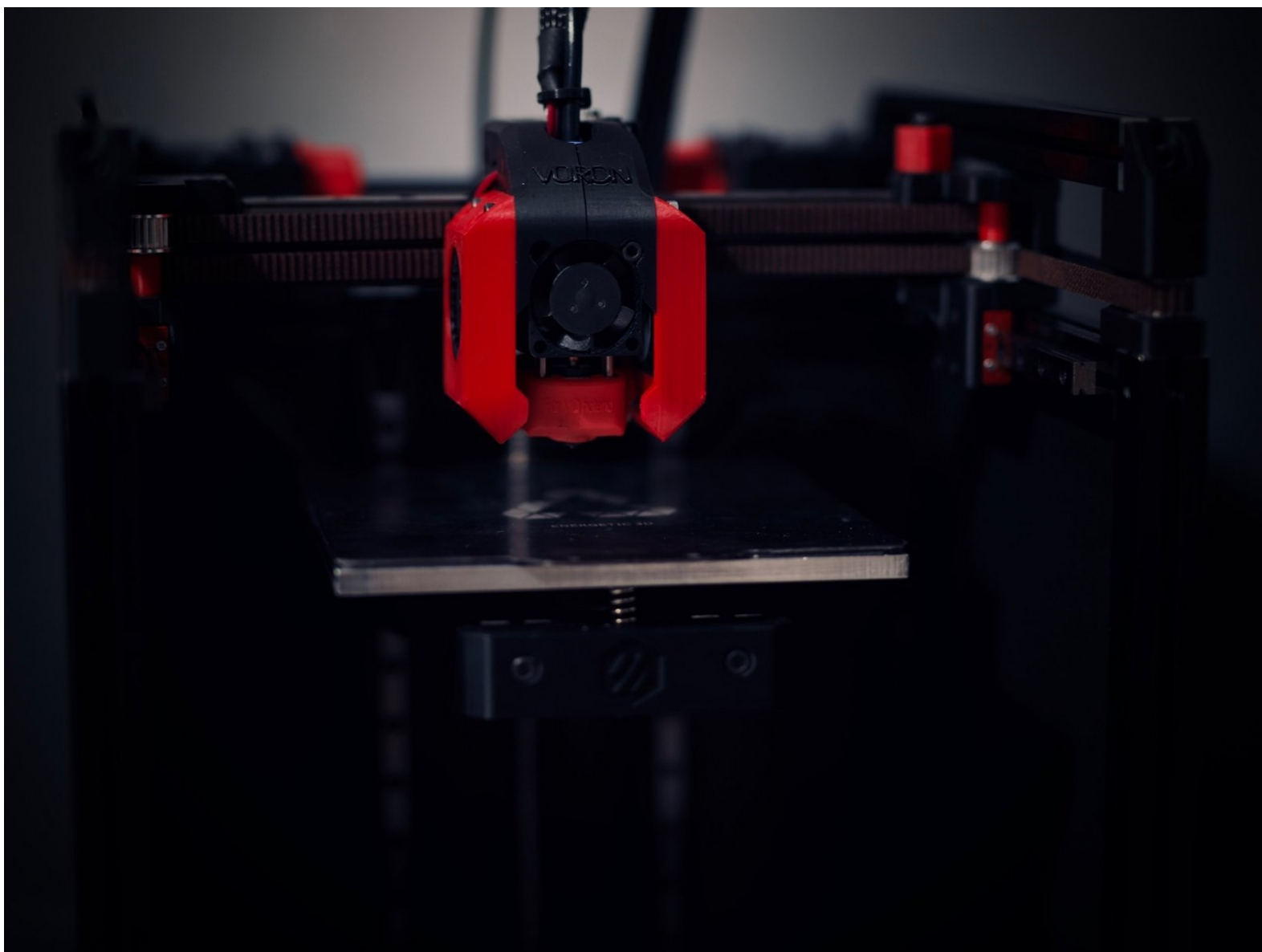# Voron Design

Voron 0 Assembly Guide: 00. Before You Start

The instructions herein will guide the builder to successfully complete the mechanical/electrical construction of the Voron 0 3D printer.
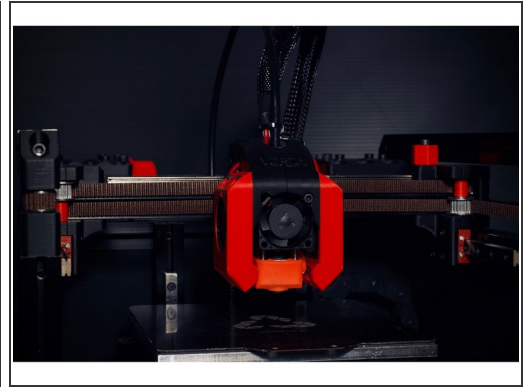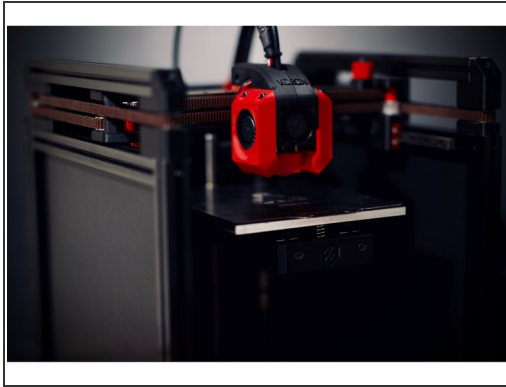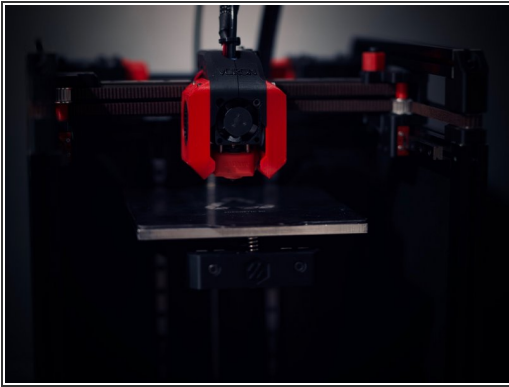
Written By: John Gilbert

INTRODUCTION

The Voron 0 is a small, lightweight, portable, full-featured Core XY 3D printer. It has a build volume that, although small, will accommodate a majority of 3D prints, and is specifically designed to be able to print all of the functional parts of printers in the Voron 1 series and the Voron 2 series of 3D printers. As such, it is an excellent "bootstrap" printer to begin building Voron printers. "Can you ever just build one?"

In its own right, the Voron 0 is a perfect entry-level 3D printer that will not be outgrown. The only reason not to use it for a particular print job would be that the print is just a little too big. Otherwise, it prints PLA, PETG, ABS, and exotics just as well as its bigger brothers. Add to that portability, and it is truly a grab and go printer for those times when portability is really a must; perhaps to print some functional part on-site where it is really useful to "print and fit" a particular part, or, at an educational occasion, to set up, print, teach, and demonstrate to others. With the Voron 0, being tied to the workshop is never an issue.

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Step 1 — Preface

- The instructions that follow will guide the builder to successfully complete the mechanical/electrical construction of the printer. Other documents are available that provide instructions for the installation and configuration of the printer's firmware, and how to successfully accomplish that first print.

Step 2 — Preparing To Build

- To start, you will need to source and prepare the parts for assembly. It is highly recommended that you use a spreadsheet to track purchases, including such information as part, quantity, vendor, order date, shipping status, and receipt. Take the printers bill of materials (BOM) and the online sourcing guide to create this tracking spreadsheet.

- Cross check the two documents against each other, so as not to miss a part. It is quite frustrating to be in the middle of a build and realize that you forgot to order a part, and have to stop and wait for receipt of the newly ordered part. Buildus Interruptus!

- If you can bear to wait until all parts are received before starting to build, it is useful to lay out all the parts and group them according to function: all the bed parts together, all carriage/hotend parts together, etc. Bag them. That way when you get to the bed frame assembly, just grab the bag of bed parts and continue building.

- Going through this sorting and collection process will do three things, 1) get yourself organized, 2) familiarize yourself with the parts you will be using in each step, and 3) double check that you have everything you'll need as the build progresses.

- Some parts may need special preparation, such as pre-drilling and tapping. If you sourced the MakerBeam extrusions, you are all set with end tapping. From other sources, such as Misumi, you will need to tap the ends.

- If you are reading this prior to ordering untapped extrusions, it is highly recommended to include some spares when ordering. Removing a broken tap is not easy, and may lead to mental illness.

- In most cases, you will be drilling the hex driver access holes for assembling the frame, and drilling and preparing the bed build plate for installation; although, there may be Voron 0 specific offerings for various parts, which have been pre-prepared. The bed plate is an example. Check the marketplace. These offerings come and go.

Step 3

- [Voron 0 Assembly Guide: 01. Preparing the Frame Extrusions](#)

Thanks to ArmyAg08, Nemgrea, and Mak for suggested edits throughout this set of guides, 00-12.