User Guide for ZONESTAR Z9V5Pro-MK4 3D Printer

⚠️NOTICE⚠️

📣**If you are a beginner of 3d printer, please carefully read the 👉📖 Step-by-Step Guide, and following the steps to do step by step.**

📣 **If you are experienced on 3d printer, please also briefly read the 👉📖 Step-by-Step Guide at least, and ensure that you have known the E4 working principle of hot end and how to load filaments to the hotend correctlly.**

Download Z9V5-MK4 files

- ⬇️ **Download all documents from github**

Documents

📖 Contents

1. Installation and User Guide

- 📖 **Step-by-Step Guide**
- 📖 **Installation Guide**
- 📖 **Wiring Guide**
- 📖 **Operation Guide**
- 📘 **Installation and user guide**
- 📖 **LCD screen menu description**
- 🎬 **Installation video tutorial**
- 🎨 **Wiring diagram**
- 📖 **E4 Hotend user guide**

- **Print From PC**
- **Advanced features guide**

2. Test Gcode

What Is G-code In 3D Printing?

G-code is information, or instructions that 3d printer requires in order to print a 3 dimensional object, it is the langurage of the 3d printer can understand. G Code is generated by your slicing software, by translating a standard 3D modelling file such as an STL file into the code that your specific 3D printer will understand.
Reference 1 **Reference 2**

File list

- **xyz_cube.gcode**: A simple test gcode file for verifing if the machine is working well.
- **TempCal_PLA.gcode**: A test gcode file to check the best printing temperature of your PLA filament
- **3DBenchy.gcode**: A classic printing performance test file, one color
- **dog.gcode**: A classic printing quanlity test file, one color
- **Z9E4_4CTest.gcode**: A base 4 colors test file

More test gcode files

3. Video Tutorial

NOTE: The video tutorial may be a little different with your machine because of firmware version is different, for reference only

Installation and Operation Guide

- **Installaltion**
- **Turn On / Turn Off the printer**
- **Bed leveling**
- **How to load Filament - for one color printing**
- **How to load Filament - for multi colors printing**

4. Slicing

What is slicing In 3D Printing?

Slicing is a piece of software that everyone uses when creating objects and products on a 3D printer. The software gives the printer a path to follow. The slicing software takes your image and converts it into G codes that your 3D printer can understand. These G codes are a type of instruction on how the printer needs to print your design. **Reference 1** **Reference 2**

ATTENTION PLEASE

1. We recommend to use PrusaSlicer to slicing multi color 3d models.
2. For the E4 hot end, the setting of the retraction length should not exceed 10mm when slicing, otherwise it is easy to block the hot end.
3. For the E4 hot end, which means that only one filament can be loaded into the nozzle at a time. Therefore, when switching from one color to another, the first filament must be unloaded from the nozzle and then load another filament. The slicing software can be implemented by adding the extruder gcode code. For details, please refer to the ***PrusaSlicer User Manual*** below.

Slicing sotware download link and use guide

Please download the slicing software and install to your PC, and then read the guide or video tutorial to study how to slicing.

- **Download Slicing Software**
- **How to download and install slicing software**
- **PrusaSlicer User Manual** **pdf file**
- **Slicing guide - for one color printing**
- **Slicing guide - for multi colors printing**

  For the newest slicing guide and more slicing software user guide, please **click here**

5. Firmware

- **Firmware bin file**
- **Firmware source code**

What is bin file and source code?

> **Firmware bin file** is the exact memory that is written to the embedded flash.
> **Firmware source code** is the core part of the firmware. The entire firmware can be thought of as different sub modules. It is divided into many sub files. These files are called source files. And, the entire program files are called source file or source code. Now our firmware source code is base on **marlin**.

6. FAQ

- **How to replace nozzle**
- **Machine auto test**
- **How to adjust the pressure of extruder**

For more FAQ, please refer to here

7. Others

Print parts stl files

Advanced features

Bed auto leveling

Bending of the 3D printer's hotbed is unavoidable. When you are printing a print with a large bottom, you need to use the hotbed auto-leveling feature to correct the curvature of the hotbed. For how to use, please refer to 📖 **Detail User Guide**.

Power auto shutdown after print finished

Usually 3D printing takes a long time, you can enable this feature to let the machine turn off automatically after the printing is finished to save energy. 📖 **Detail User Guide**.

Filament run out detect

Sometimes there is not enough filaments left in the filament roll to complete the current printing. At this time, you can pass the filament through the Filament Run Out Sensor and enable the **Runout Sensor** feature on LCD screen. The machine can detect that the filament spool are out and pause the printing, and then resume the printing process after you replace a new filament roll.
📖 **Detail User Guide**.

Power losss recovery

If your power supply network has frequent power outages, you can enable the automatic power losss recovery function before start printing. When the power goes out and it resumed, you can press the DC switch to turn on the power of the machine, and then the machine will automatically detect the printing breakpoint and provide you with whether you need to continue printing.
📖 **Detail User Guide**.

Optional upgrade features

We have developed some scalable features for the machine. If you are interested in these features, please click the below link to know more detailed.
➡️**Optional upgrade features**.