**Geeetech Rostock 301 mix color 3D printer**

**Overview:**

Geeetech Rostock 301 is an affordable desktop 3D printer for tech enthusiasts, serious hobbyists and educators. This printer provides you with excellent printability and triple-color, mix color capability, offering an intuitive 3D printing experience.

Rostock 301 is a perfect combination of the delta type construction and the 3-in-1-out mix color 3D printing hotend. Delta type construction features faster printing speed and high printing accuracy; the 3-in-1-out mix color 3D printing hotend gives a rich mixture of color combination of the printing object.

Rostock 301 maintains DIY property, with which you can unleash your creativity to refit or modify it as you like. This kit is just the beginning; you can get more out of it.

**Features:**

1. **3-in-1-out mix color 3D printing hotend**

The 3-in-1-out mix color 3D printing hotend is a single nozzle hotend for 3D printing in multiple colors that requires a minimum of calibration. It allows you to feed three filaments through three independent feed-in channels and be extruded out through one nozzle which provides a faster, easier and more precise method of 3D printing and this can be a new frontier of 3D printing.

1. **Easier calibration**

The single nozzle eliminates the calibration problems associated with having separate nozzles for each color, and the single output orifice alleviates the problem of out-of-level nozzles hitting the working surface being created.

1. **Hardware upgrades**

Hardware: We upgrade the GTM32 3d printer controller board so that if features everything you need to build your printer for multi-color printing.

GTM32 3d printer controller board is powered by STM32F103 which uses the Cortex-M3 core, with a maximum CPU speed of 72 MHz. It offers a 32‑bit product range that combines very high performance, real-time capabilities, digital signal processing, and low‑power, low‑voltage operation, while maintaining full integration and ease of development.

1. **Firmware upgrades**

We added a new Mixer feature to control the percentage of the feed rate of the 3 filaments. It allows you to time exactly when and where the color changes.

Working as a palette, the three filaments of different colors will be fed in accordance with a certain percentage of feeding rate, then they will be melted and mixed in the nozzle chamber to generate another new color or mixed color, enables the printing of model with any color.

**4. Higher building speed and printing precession**

The benefit of a Delta printer is that the moving parts are lightweight so that it’s easier to travel. That results in faster printing with greater accuracy. To ensure the print speed, we have designed the hotend to have the smallest possible weight of 175g; the print speed can be up to 120mm/s.

**5. Open color system**

You can also use Rostock 301 as a single extruder printer, a dual extruder and a 2-in-1-out extruder, which gives the printer an open color system; this means you’re able to use nearly any color to get precisely the effect you’re after. When you combine different colors, the possibilities are endless. With our Mixer feature, you can get blending color, mix color and even full color for one printing project.

**Specifications:**

Print technology: FDM

Build volume: cylindrical, D: 170mm, H: 230mm

Printing precision：0.1mm

Positioning precision：0.05mm

Printing Speed: 80-120mm/s

Filament diameter: 1.75mm

Nozzle diameter: 0.4mm

Filament type: ABS/PLA

**Software**:

Operating system: Windows/Mac/Linux

Control software: Repetier-Host, Printrun, Cura

File format: .STL, 3ds, obj, amf, dae, G-code

**Temperature:**

Max heated bed temperature:  About 110 °C

Max extruder temperature: About 240°C

**Electrical:**

Power supply:

Input: 110V/ 4.8A or 220V /2.4A

Output：DC12V/20A

Connectivity: USB, SD card (support stand-alone printing)

**Mechanical:**

Build Platform: Aluminum alloy plate+ heatbed

XYZ Rods: Wear-resistant, stainless steel

Stepper Motors: 1.8°step angle with 1/16 micro-stepping

Physical structure: Delta Rostock

**Physical Dimensions & Weight**

Machine Dimension: 320 x 320 x 870mm

Shipping box Dimension: 510x410x210mm

Machine Net weight: 9.6kg

Machine shipping weight: 11kg

**Package list**

1 x Rostock 301 DIY kit

1x tool set

3 meter starter filament