

# Mono3VZ2 - High Power 365 nm and 465 nm

Mono3MZ2



**Tool Type:** High power printer

**Location:** Oasys 400

**Manufacturer:** MonoPrinter

**Principal Scientist**

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## About

The **MONO3VZ2** by MonoPrinter is a research-grade, high-intensity DLP (Digital Light Processing) 3D printer designed for extreme customization and advanced material science applications.

Unlike consumer resin printers that use a single UV wavelength, the VZ series has two high power LEDs 365 nm and 460 nm that can be used sequentially.

### Core Capabilities

**Multi-Wavelength System:** This is the standout feature. It can be configured with up to 3 LED channels, allowing you to use different wavelengths (typically between 365nm and 616nm, covering UV to visible light). This is critical for research involving dual-wavelength curing or complex chemical reactions.

**High Intensity:** It is marketed as an “Extreme High Intensity” printer, providing significantly more power than standard machines to handle specialized or “slow” resins that require more energy to polymerize.

**Vat Photopolymerization:** It uses DLP technology, meaning it projects a 2D image of each layer all at once, leading to faster build speeds compared to laser-based SLA printers.

**Technical Specifications XY Resolution:** Variable, typically ranging from 25  $\mu\text{m}$  to 70  $\mu\text{m}$  depending on the configuration.

**Z-Precision:** Highly accurate motor-driven movement, with a resolution of 5  $\mu\text{m}$  to 25  $\mu\text{m}$ .

Build Volume: Approximately 134 x 76 x 125 mm (1.27 liters).

Connectivity: Equipped with USB and Wireless connectivity (powered by a Raspberry Pi).

Software: Controlled via MonoWare, a proprietary slicer that allows for granular control over print recipes, shutter timing, and sensor monitoring.

## Detailed Specifications

**LED intensity**



## Manuals

Assembly and First Print

Film Replacement

Job File Structure

Power Measurement

Multi-color-grayscale slicing

Printer Firmware

## Safety Concerns

Read the manufactures manual before first use. If the Mono3VZ2 acts in a way that is not described by the manual, turn off the printer and contact the principal scientist as well as Mono at [info@monoprinter.com](mailto:info@monoprinter.com) .

- Never place your finger near the machine until all parts have stopped moving. Moving parts can cause serious injury.
- Never clean or service the printer while it is on.
- The printer uses different LEDS. Never look directly at LED light nor expose skin. Serious injury may result from exposure.
- Disassembling the printer may cause an electric shock or damage to the instrument. Do not disassemble any parts of the printer not mentioned in the instruction manual.

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