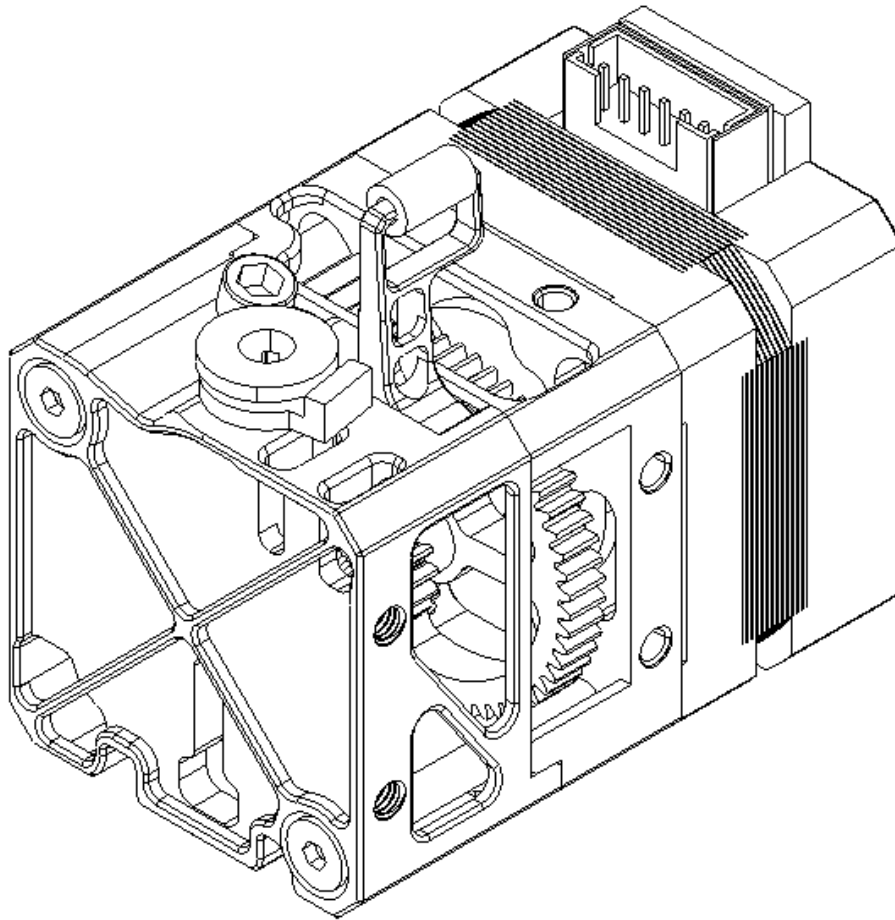


BIQU

H2 V2X

User Manual



Product Link:

<https://biqu.equipment/products/h2-v2x>

Wiki Link:

<https://bttwiki.com/H2%20V2X.html>

Introduction

The H2 V2X is an ultra-lightweight (145g) direct drive extruder designed for highend CoreXY printers, Precision CNC machined from AL6061 T6 aluminum. It features superior motor heat dissipation, hardened dual-gear extrusion for smooth filament feeding, and versatile mounting options.

Feature Highlights

- **Ultra-Lightweight:** Enables faster, precise printing with minimal inertia.
- **Superior Motor Heat Dissipation:** Hollowed-out, all-metal construction keeps the motor cool for consistent performance.
- **Durable Construction:** Anodized aluminum with CNC machining ensures long-lasting durability.
- **Versatile Mounting:** Features four-sided mounting options for expansion setups.
- **Effortless Filament Changes:** One-handed lock/unlock mechanism simplifies filament handling.
- **Tension adjustment** allowing you to master all filament

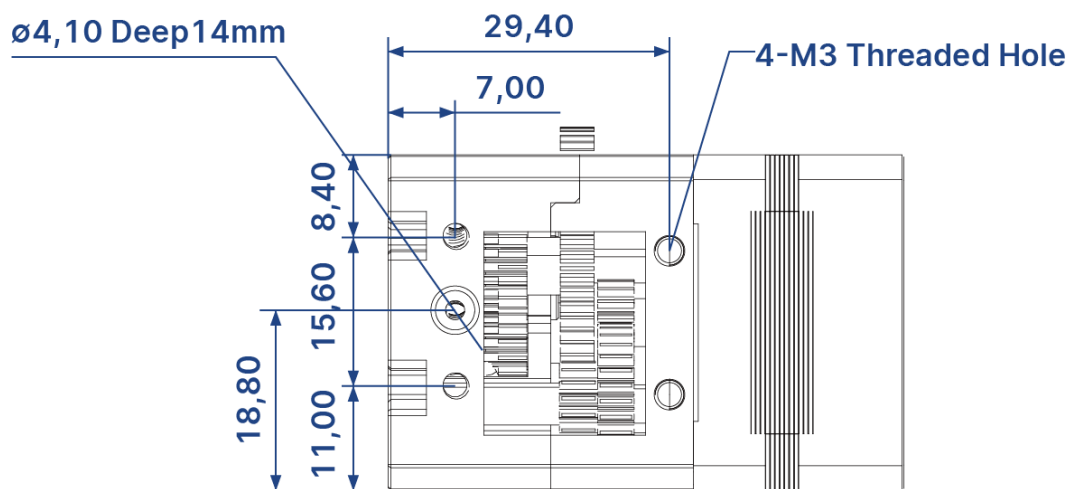
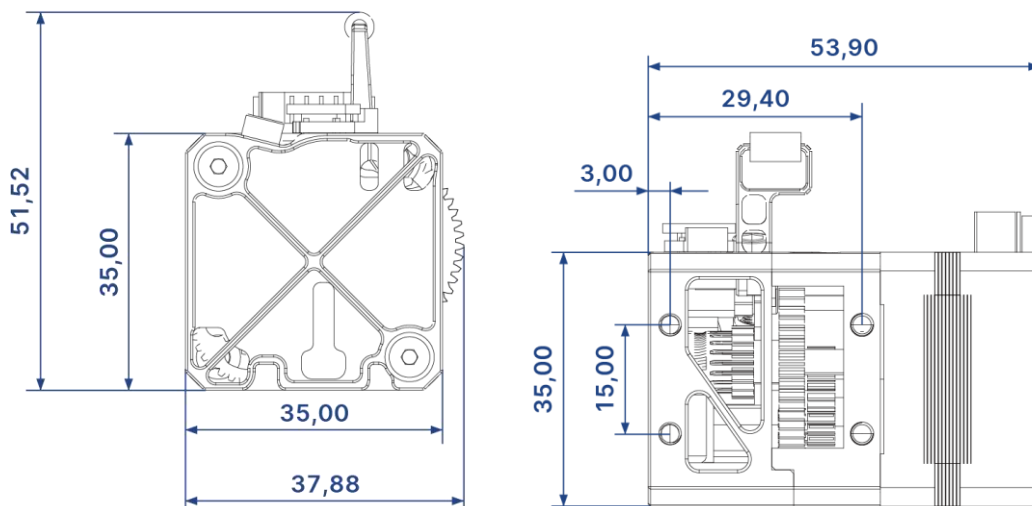
Technical Specifications

Extrusion Method	Dual Gear Extrusion
Weight	145 g
Maximum Extrusion Force	7.5 kg (varies according to filament types)
E-step	932/mm at 16 microsteps (additional calibration is recommended)
Klipper Rotation Distance	3.433
Recommended Motor Current	800 mA
Gear Ratio	7:1
Drive Gear Circumference	24.5 mm
Filament Diameter and Tolerance	1.75 mm \pm 0.05 mm

*Note: Not compatible with standard NEMA14 motor.

Dimensions

XYZ Dimensions: 53.9 x 37.88 x 51.52mm

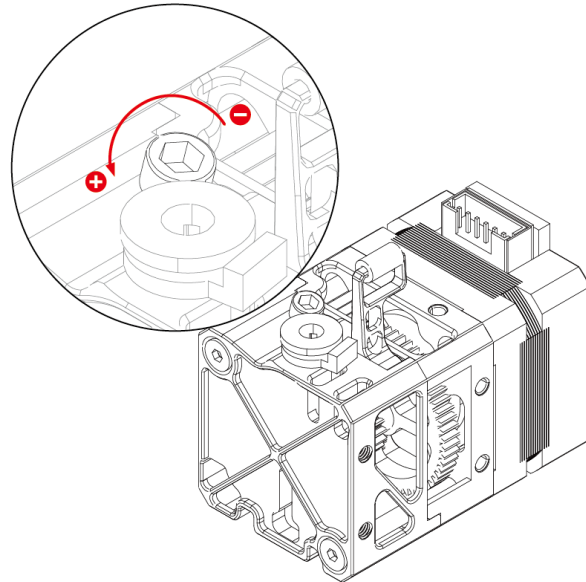


Unit: mm

Filament Tension and Filament Release

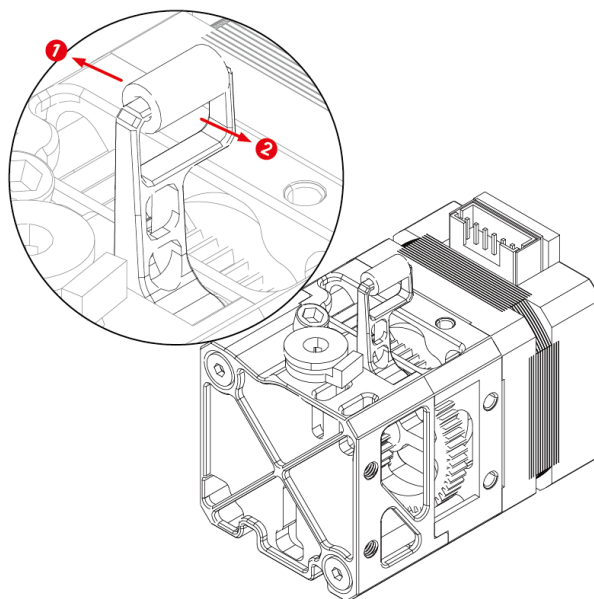
Adjusting the Drive Gear Tension:

The tension of the drive gear is adjustable to allow for the use of various types of filament. Turn the Tensioner Screw counterclockwise to increase pressure or clockwise to decrease pressure. Note: Do not force the screw once it stops turning, as this could damage the extruder.



Releasing the Filament:

To release the filament, pull the lever towards the position labeled "②" in the diagram below. To lock it, move it to position "①".



Maximum Operating Temperature

Note: The temperatures listed are for individual components, not for the entire system.

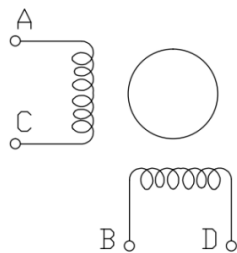
Motor: 130°C

Bearings: 100°C

Motor Specifications

Rated Voltage	DC 3.45V
Rated Current	DC 1.5A per phase
Phase	2
Winding DC Resistance (25°C)	2.3x (1±10%) Ω
Winding Inductance	2.0x (1±20%) mH
Holding Torque	≥110mN·m
Positioning Torque	7mN·mREF
Insulation Resistance	≥100MΩ (DC 500V)
Insulation Level	Class B
Moment of Inertia	8g·cm ³

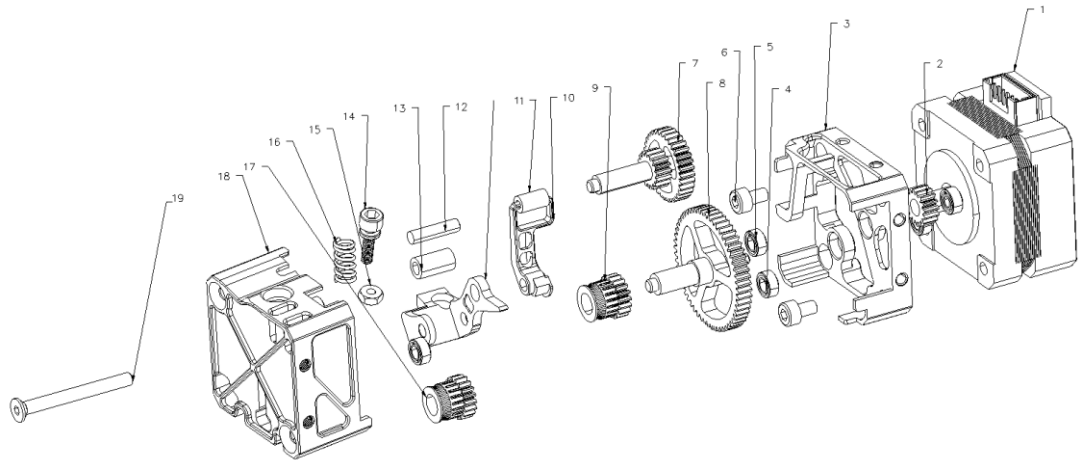
Winding
arrangement



Connector
Pinout



Exploded View



- | | |
|---------------------------------------|---------------------------------|
| 1. Motor | 11. PTFE Tube |
| 2. Pinion Gear | 12. Pin |
| 3. Gearbox | 13. Roller Bearing |
| 4. 682XZZ Bearing | 14. Tensioner Screw |
| 5. 673ZZ Bearing (inner diameter 3mm) | 15. M2.5 Nut |
| 6. M3x4 Socket Head Cap Screw | 16. Spring |
| 7. Spur Gear | 17. Idler Gear |
| 8. Output Gear | 18. Front Cover |
| 9. Drive Gear | 19. M3x35 Socket Head Cap Screw |
| 10. Filament Release Lever | |

Product Purchase Link:

<https://biqu.equipment/products/h2-v2x>

If you experience any issues with this product, please contact us and submit a support ticket.

<https://biqu3d.com/pages/submit-a-ticket>

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