

COBBLEBOT VANGUARD V2
SUPPLEMENTAL INSTRUCTIONS

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>>> WARNING <<<

READ BEFORE CONSTRUCTING AND/OR USING THIS COBBLEBOT 3D PRINTER KIT

- (1) USE OF THIS PRODUCT IS **EXTREMELY DANGEROUS** AND CAN RESULT IN **SERIOUS BODILY INJURY** AND/OR **DEATH**;
- (2) USE OF HIS PRODUCT MAY CAUSE A **FIRE AND/OR SERIOUS BURNS**;
- (3) THIS PRODUCT **SHOULD ONLY BE USED BY ADULTS (18+)**
- (4) CHILDREN AND PETS/ANIMALS SHOULD **NEVER BE ALLOWED** IN PROXIMITY TO THIS PRODUCT AND CAN BE **SERIOUSLY INJURED OR KILLED** BY THIS PRODUCT.
- (5) THIS PRODUCT SHOULD NEVER BE LEFT **UNATTENDED** – A PERSON SHOULD BE PRESENT IN THE ROOM WITH THIS PRODUCT AT ALL TIMES WHILE IT IS POWERED ON;
- (6) USE OF THIS PRODUCT MAY CAUSE **ELECTROCUTION AND/OR DEATH**;
- (7) USE OF THIS PRODUCT MAY CAUSE A **HOME/OFFICE FIRE** RESULTING IN **DAMAGE/LOSS OF PROPERTY**.
- (8) USE OF THIS PRODUCT MAY CAUSE **DEATH**;

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>>> WARNING <<<

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You certify that you have sufficiently prepared or trained for constructing and/or using a Cobblebot 3D Printer.

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The Waiver of Liability shall be construed broadly to provide a release and waiver to the maximum extent permissible under Texas law.

YOU CERTIFY THAT YOU HAVE READ THIS DOCUMENT AND YOU FULLY UNDERSTAND ITS CONTENT. YOU ARE AWARE THAT THIS IS A WAIVER OF LIABILITY AND AGREE TO IT OF YOUR OWN FREE WILL.

II. Warranty. This Cobblebot 3D Printer AND/OR Cobblebot 3D Printer Kit is provided as is without any guarantees or warranty. In association with the product, Cobblebot Inc. makes no warranties of any kind, either express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, of title, or of noninfringement of third party rights. Use of the product by a user is at the user's risk.

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IV. Governing Law. Any agreements whereby we provide you Services or Products shall be governed by and construed in accordance with the laws of the State of Texas.

Any judicial proceeding against Cobblebot Inc. shall be brought before a State or Federal Court seated in the City of Houston, State of Texas, USA.

V. Terms & Conditions. Please visit Cobblebot.com to read the Terms & Conditions regarding your Kickstarter pledge and/or purchase. You agreed to the Terms & Conditions when finalizing your order on our website located at: Cobblebot.com. Those Terms & Conditions are a binding contract between Cobblebot Inc. and YOU.

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VII. Single User License. Cobblebot Inc. hereby grants a SINGLE USER LICENSE, to owners of a Cobblebot Basic 3D Printer, to download and use this assembly guide. Reproduction or sharing of this assembly guide is strictly prohibited. Hosting of this assembly guide for viewing or download on non-Cobblebot Inc. servers is strictly prohibited. License is non-transferable.






VII. Not Open Source. 3D printers, CNC mills, laser cutters, plasma cutters, engravers and other products designed and/or manufactured by Cobblebot Inc. are NOT OPEN SOURCE. While Cobblebot Inc. does make use of some open source hardware and/or software in some of its products, our original designs are not open source. As such our original designs cannot be reproduced or shared in any format.

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V1 to V2 Change #1

V2 uses the smooth idler pulley instead of just 625 & 608 bearings. Where the instructions call for the pulley assembly, use this assembled pulley in place of the method described in the instructions.

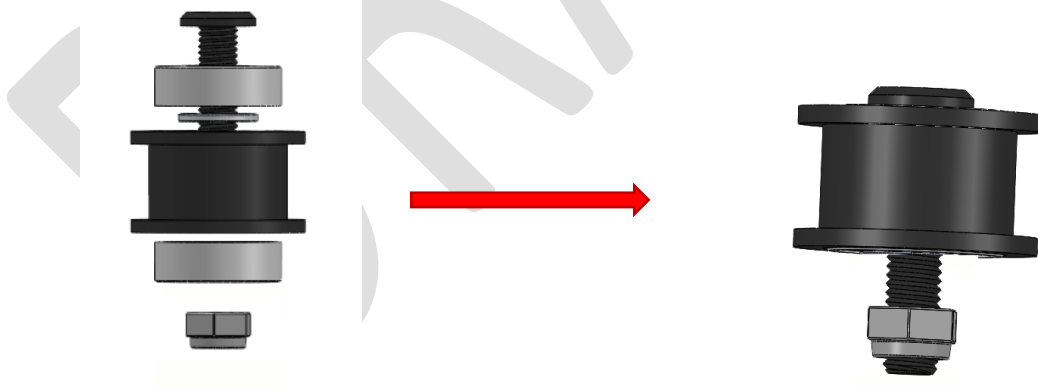
Pulley Assembly, Items Needed:

				
3 x Smooth Idler Pulley	6 x 625 Bearings	3 x M5 Precision Shims	3 x M5 Nylon Locknuts	3 x M5*25mm Low Profile Screw

Each pulley assembly requires:

- 1 x Smooth Idler Pulley
- 2 x 625 Bearings
- 1 x M5 Precision Shims
- 1 x M5 Nylon Lock Nut
- 1 x M5*25mm Low Profile Screw

Slot the M5*25mm screw through one 625 bearing. Drop a precision shim onto the screw on the bearing side, and insert the bearing into one end of the pulley. Add another 625 bearing onto the other side of the pulley, and lightly tighten the M5 locknut. Set aside the pulley assembly and repeat for the remaining two pulley assemblies.

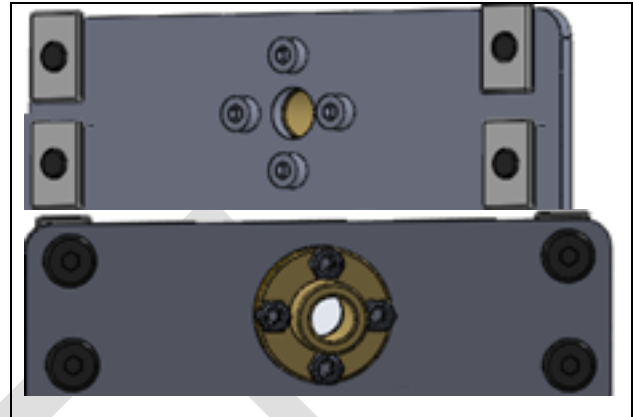


V1 to V2 Change #2

V2 makes use of 2 lead screws to lift the Z axis instead of one. In order to connect the 2nd lead screw, you will need to assemble the “lead screw mount”. This plate will attach to the X gantry and sit directly next to the X Idler pulley plate.

Lead Screw Mount Assembly:

Pre-assemble the Lead Screw mount plate. The brass nut should sit flush on the plate over the smaller, 8.5mm hole. Use the 10mm M3 screws and 4 M3 Nylon lock nuts to fix the nut the plate. Place 4 x M5 8mm screws through the four holes in the corners, and very slightly screw on a T-nut on the opposite side of the plate. The head of the screws should be on side of the plate that the brass nut is sitting on.

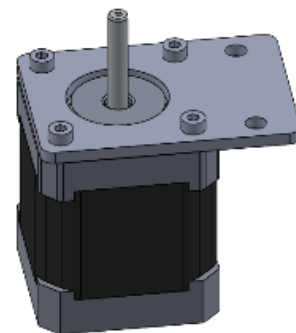


V1 to V2 Change #3

The third change in the V2 is that the V2 X motors mount on TOP of the system instead of at the bottom. So ignore the section in the assembly manual concerning attachment of the Z motors. Instead construct the two Z motor assemblies below and attach them to the TOP rail of the system. They will need to be lined up so that the lead screws can attach to the “lead screw amount” above and the X Motor mount described in the manual. All other instructions concerning attachment of the lead screws to the motors are still applicable.

Z-Motor Assemblies:

Attach the Z-Motor mount plates to the Nema 17 motors using M3*8mm screws.



V1 to V2 Change #4

The final change in the V2 design is that the top supports are now connected using 5 points connectors instead of corner brackets (the same five point connectors that are used to connect the BOTTOM part of the frame). So use the 5 point connectors to attach the top 20x20 rails to the 20x80 Z axis rails.

