

LIGHTOBJECT



Motorized Z Table/Bed Assembly Instruction

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Introduction

This mini-powered bed is designed to fit the “k40” small desktop CO2 laser machine. The purpose of this power bed is to allow for height adjustment to get better cutting or engraving. This guide shows the steps of how to assemble it.

What is included

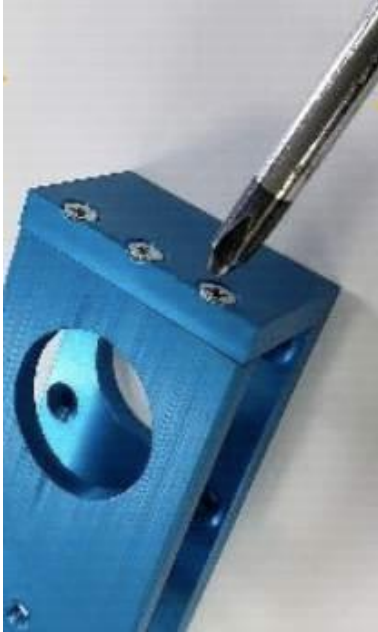
1 Bottom Frame (Blue)	A	4 Threaded-rods with T-screws and nut	G
1 Top Frame (Blue)	B	1 Belt	H
1 Bed	C	1 Stepper Motor	I
1 Belt-tensioner	D	8 Bearings	J
4 poles	E	Washers	K
Screws	F	Allen key	L
1 motor bracket	M	Spare parts	



Steps to assemble

Step 1

Unscrew the three flat head screws to remove the frame from the motor bracket "M".



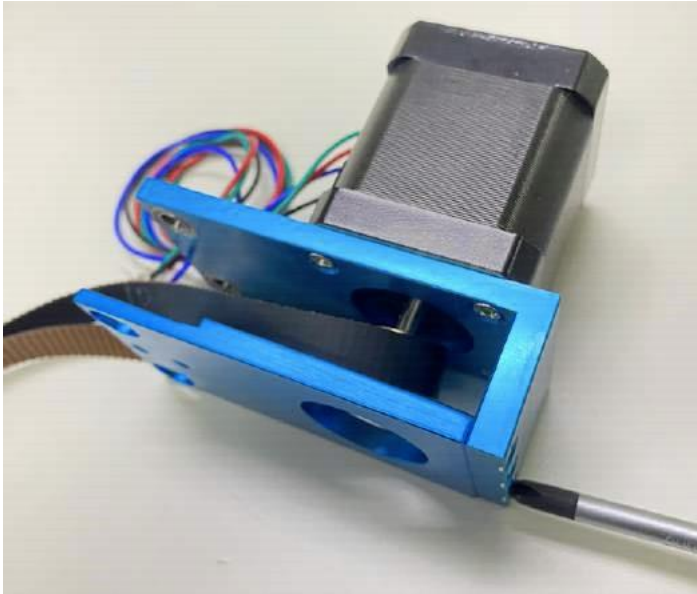
Step 2

Fastening the stepper motor "I" to the motor bracket "M" with screws.



Step 3

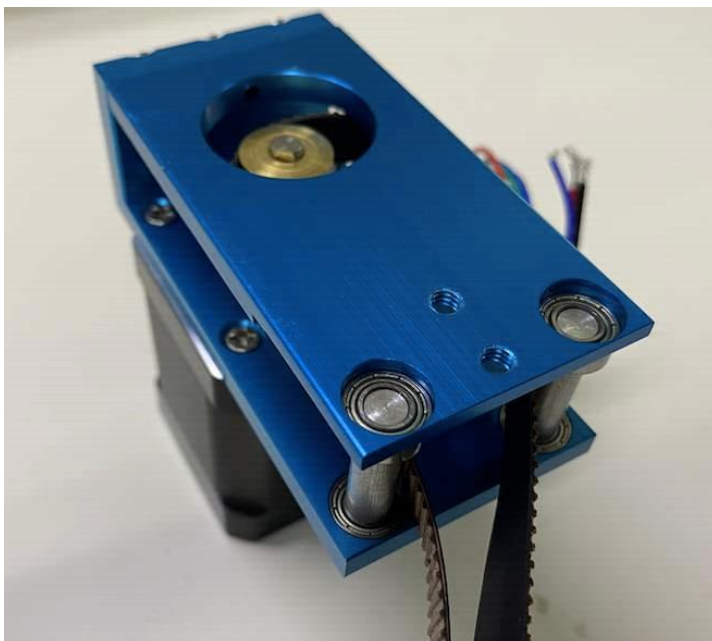
Place the belt “H’ to the motor pulley. Then, fasten the frame back to the motor bracket with the 3 screws shown in Step 1.



Step 4

Put back the two bearings and shafts to the frame.

Note: the belt should be coming out in between the rollers

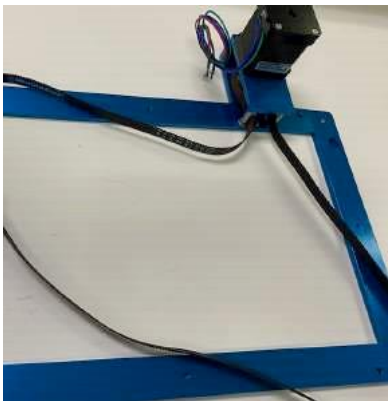


Step 5

Fasten the motor bracket assembly with short screws to the bottom frame "A".

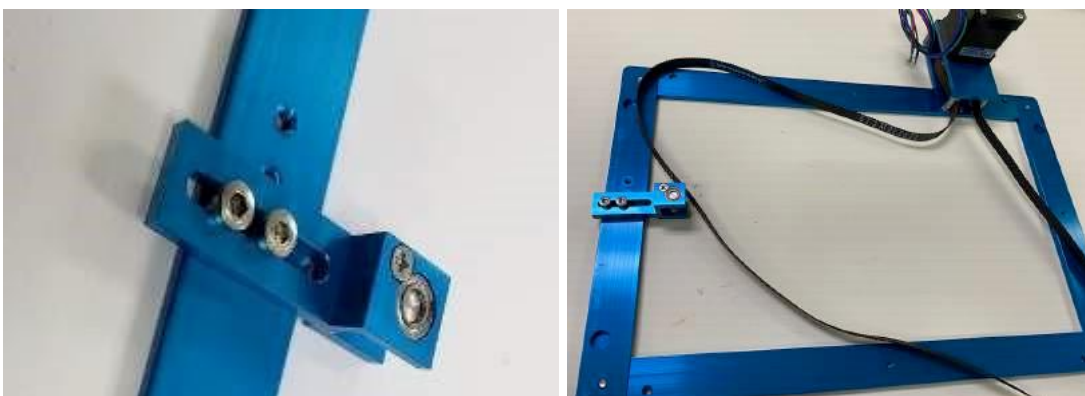


Note: Please pay attention to the direction. Motor should lie on the outside of the bottom frame



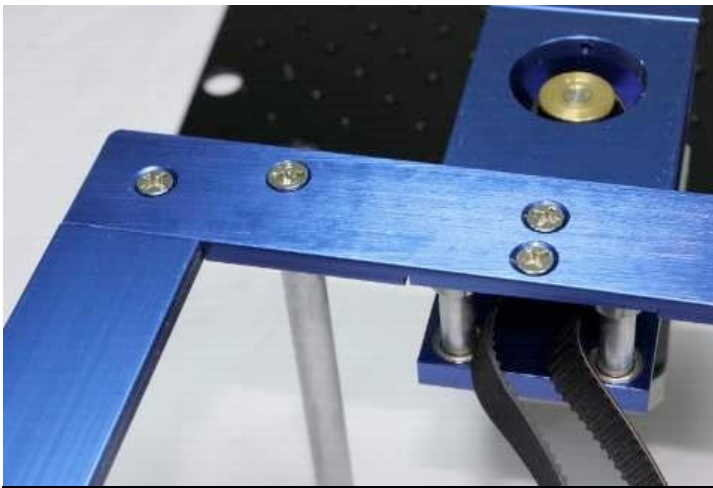
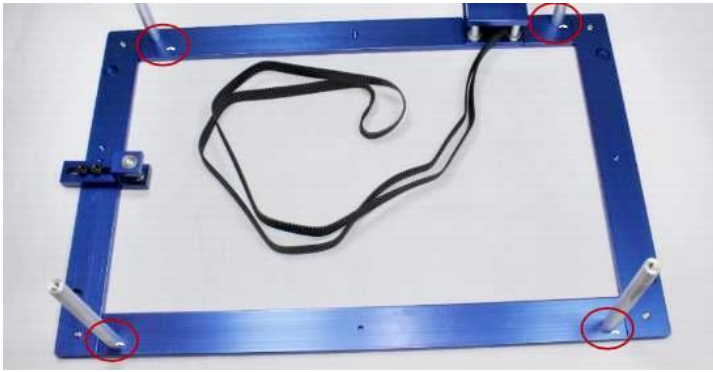
Step 6

Use Allen key "L" to fasten belt-tensioner "D" to the bottom frame "A" with two screws



Step 7

Fasten the poles "E" to the bottom frame "A" with the 4 screws that already attached to the poles. Keep the other 4 screws for later use



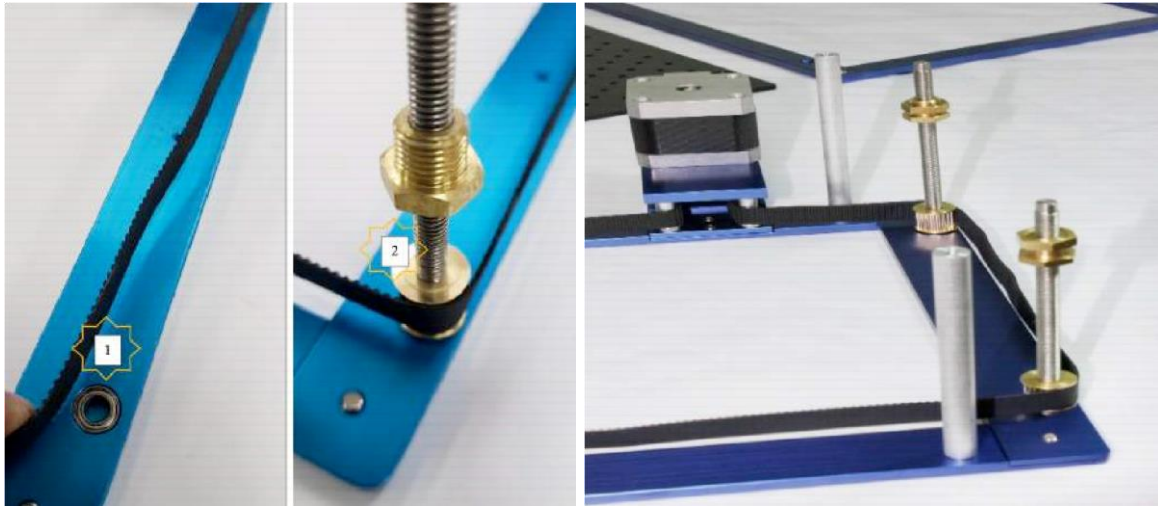
Step 8

Put 4 bearings "J" to the 4 slots on the bottom frame "A".



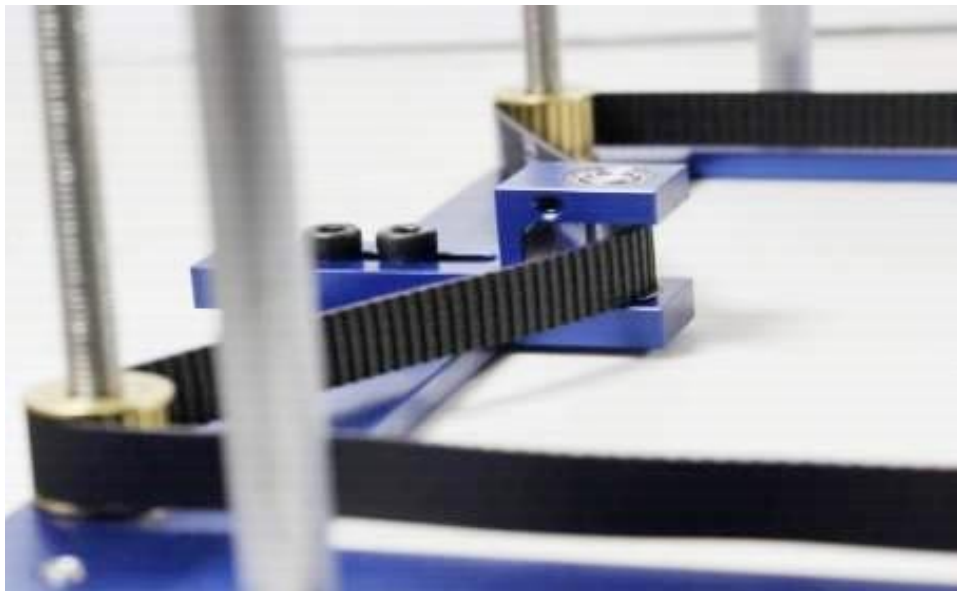
Step 9

Lay the belt around the frame. Insert threaded rod "G" to the bearings with the belt surrounding the pulley.



Step 10

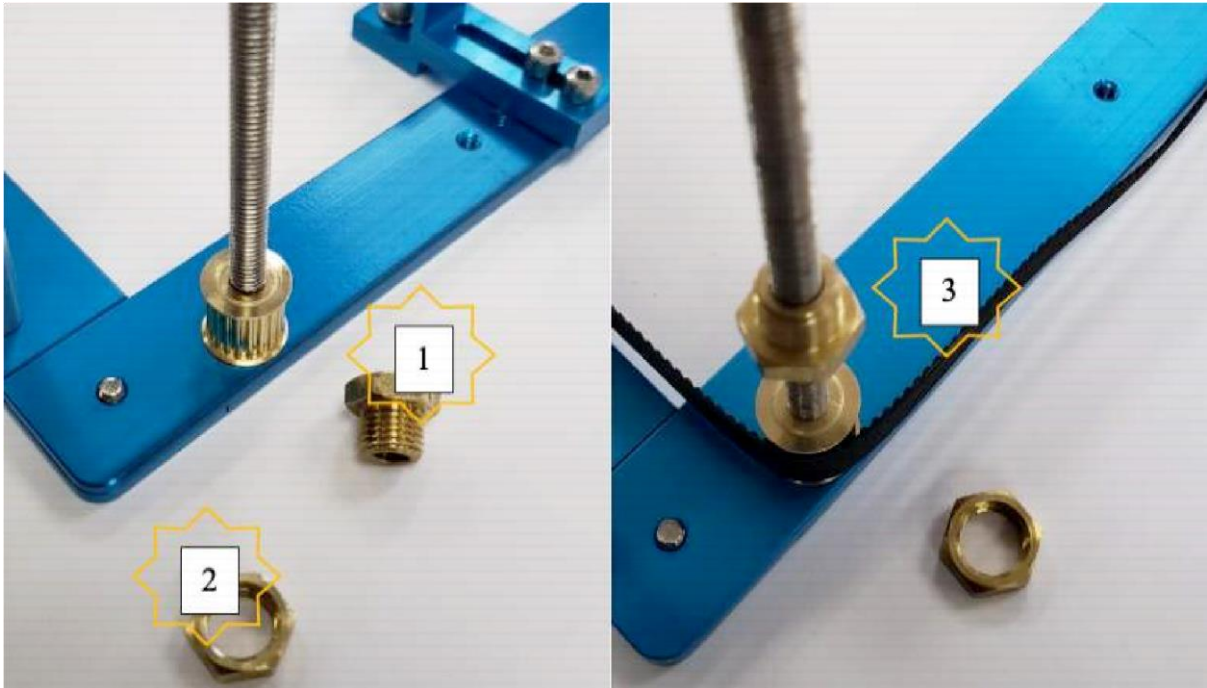
Adjust the position of belt-tensioner "D" to tension the belt. Do not put too much tension. It should be just enough to let motor run smoothly later.



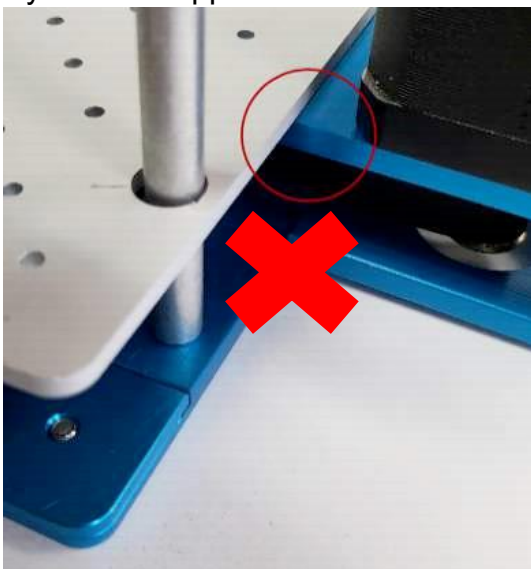
Step 11

Remove the upper lock nuts.

Note: Threaded side of the T-nuts should face up



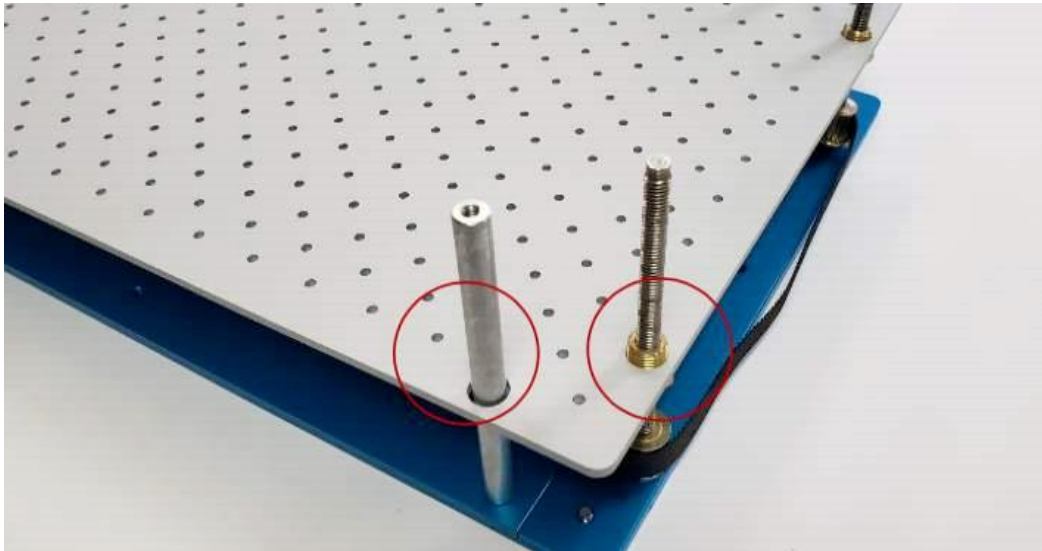
Important: The T-nut will provide support to the bed, so make sure that all T-nuts are levelled and also have enough space underneath such that the bed doesn't lay on the stepper motor's bracket.



Step 12

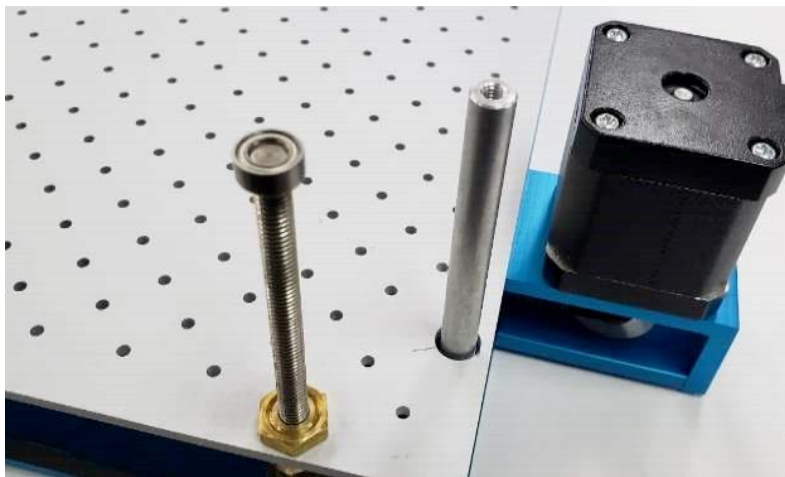
Lay the bed "C" on the 4 T-nuts. The bed should go thru all threaded-rods and poles.

Important: Make sure the bed doesn't wobble or lay on the stepper motor's upper frame. Fix these problems by adjusting the height of the T-nuts.



Step 13

Put back the four T nuts upper parts. Place the bearings on top of each of the threaded-rods.



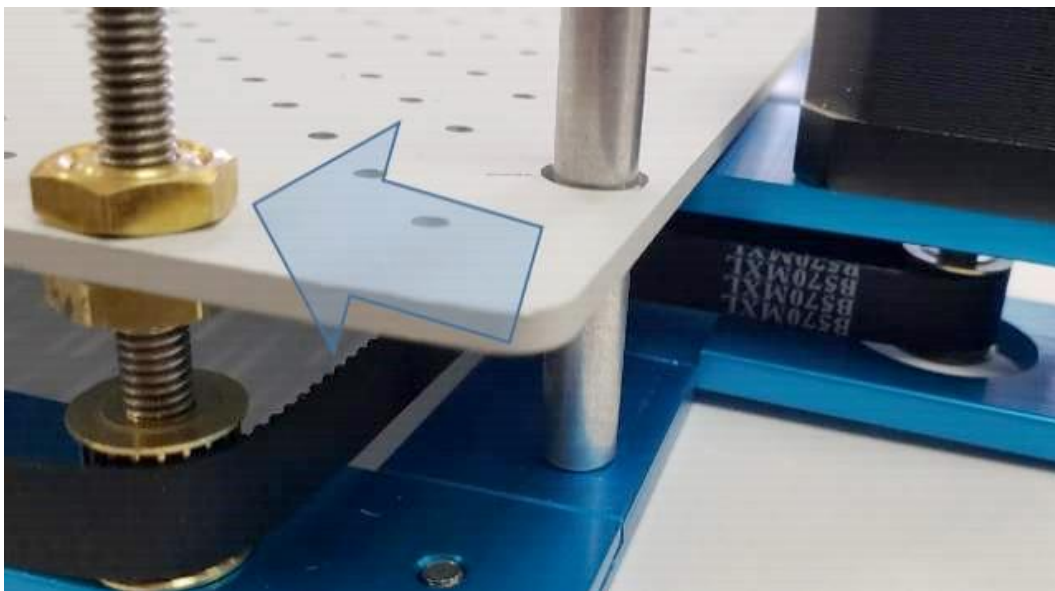
Step 14

Put the upper frame by gently pushing the bearing in place. Install screw on poles, do not over-tighten.



Step 15

Tighten the upper lock nuts just enough to lock the T nuts on the table.



Congratulations!! You've finally finish assembling your Motorized Z Table/Bed



Fine tune:

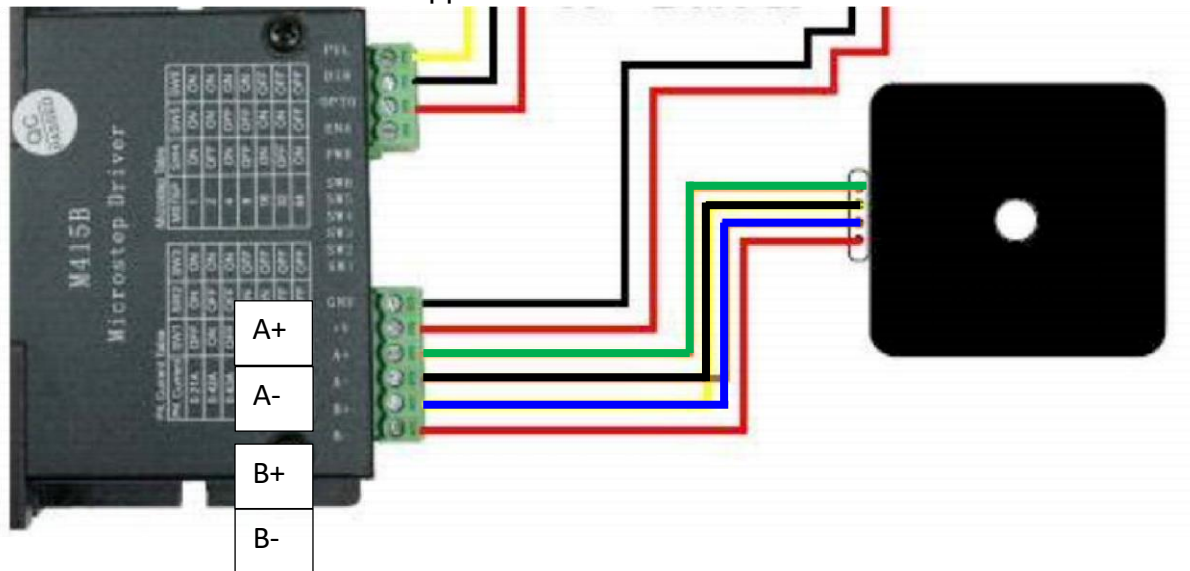
Before connecting the motor wiring, you should be able to move the belt by hand without much effort. If it is very hard to move, please recheck step 14, 15 and level the height of four corners.

Wire connection

For wiring the 2-phase motor:

Green/Black wires to A+/A- on stepper driver.

Blue/Red wires to B+/B- on stepper driver.



**Note: For drivers with PUL+ and DIR+, connect those to +5V on controller board. Those with DIR-, connect it to DIR on the controller board and for PUL-, connect to PUL- on controller board*