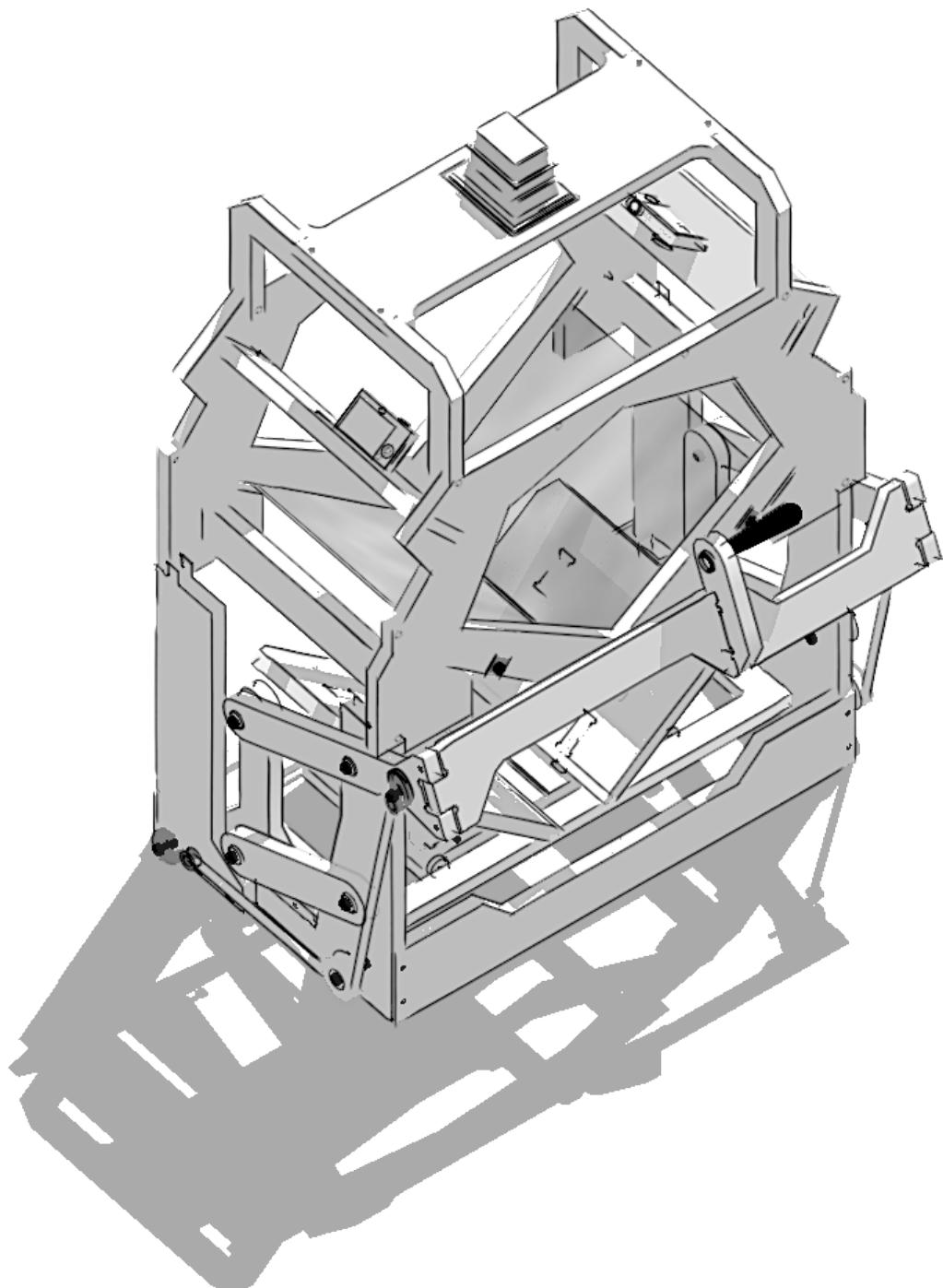
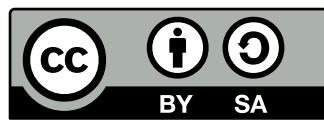


DIY BOOK SCANNER

Assembly Instructions



v 2.1.0
August 30, 2013



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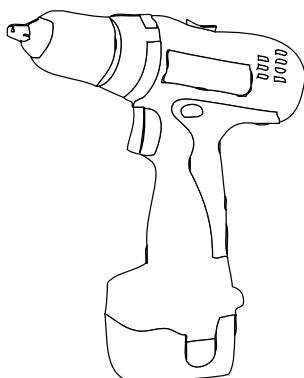
Attribution to: The DIY Book Scanner community at
<http://www.diybookscanner.org> .

Contents

| | |
|---|------------|
| CONTENTS | III |
| TOOLS NEEDED | IV |
| KIT CONTENTS: WOODEN PARTS | V |
| KIT CONTENTS: HARDWARE | IX |
| HARDWARE YOU WILL NEED TO PURCHASE | XI |
| ASSEMBLY INSTRUCTIONS | 1 |
| Base | 1 |
| Arms | 5 |
| Cradle | 19 |
| Platen | 23 |
| Light | 31 |
| Camera | 33 |
| ADDENDUM | 35 |
| Alternative handle | 36 |

Tools needed

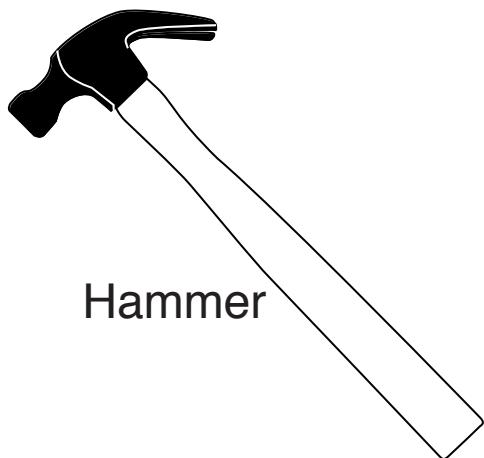
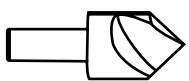
Drill



1/8" drill bit
3 mm drill bit

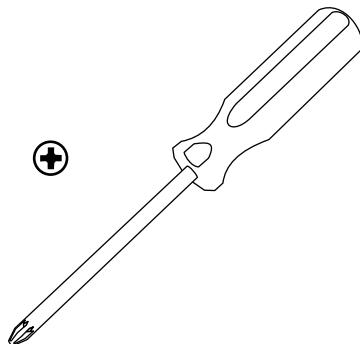


3/8" countersink bit
10 mm countersink bit



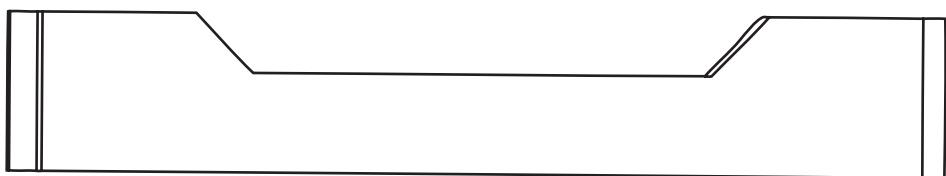
Hammer

Phillips #2
screwdriver

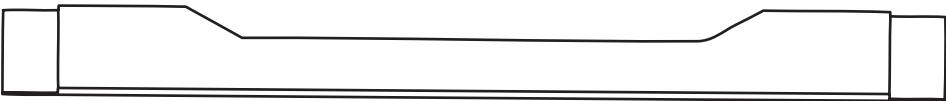


Kit contents: wooden parts

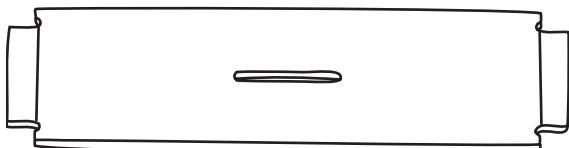
1x
Front



1x
Rear



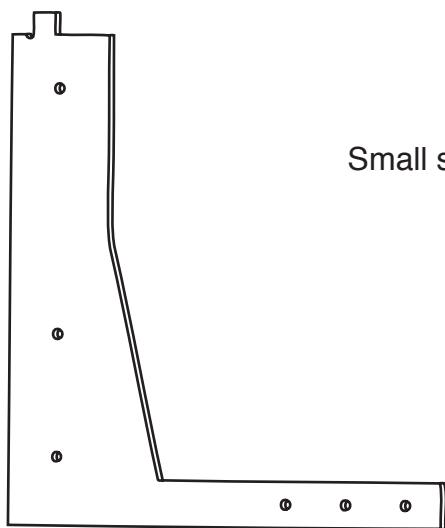
2x
Large brace



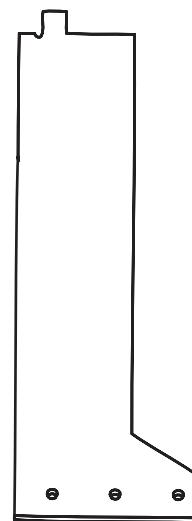
2x
Small brace

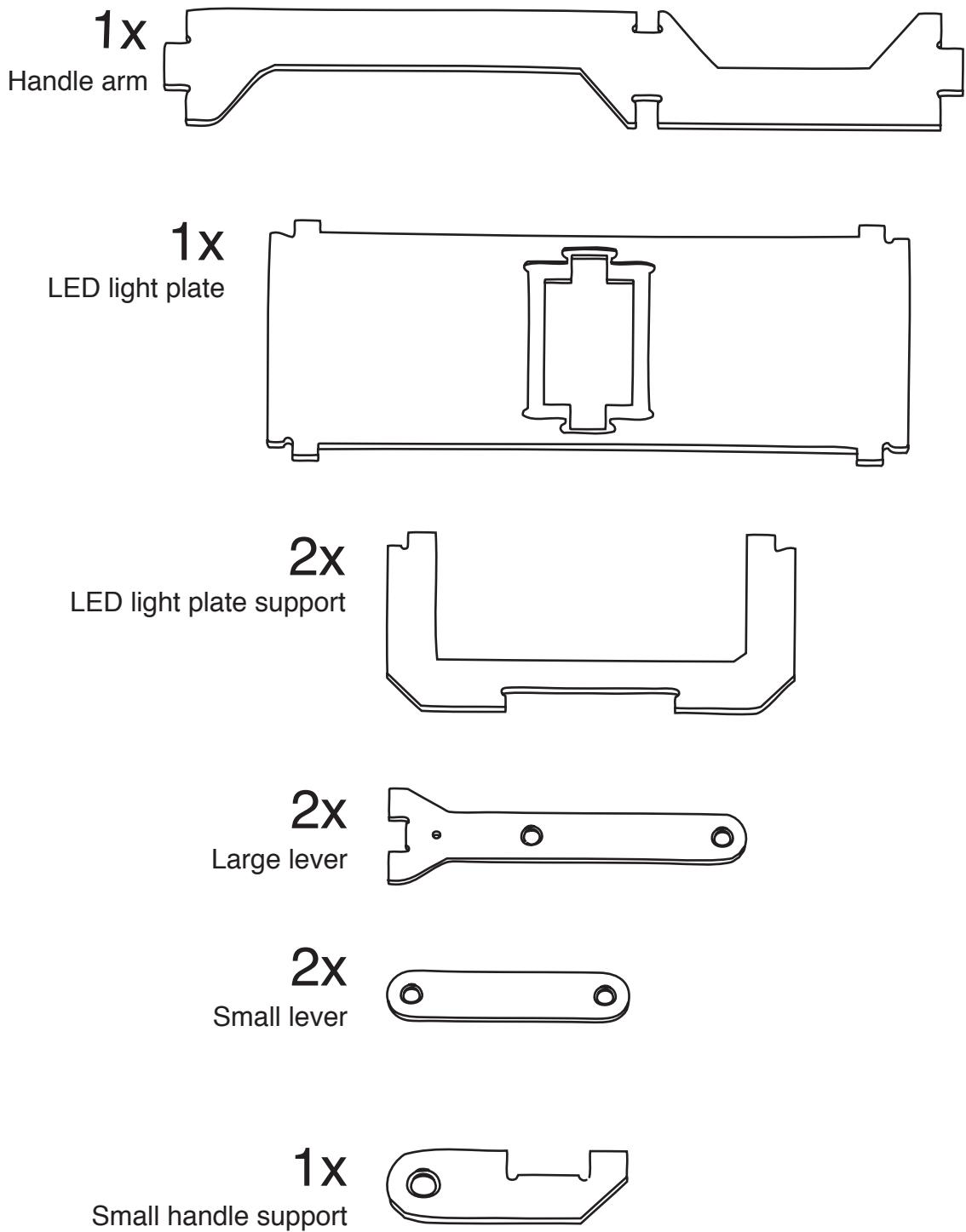


2x
Large support

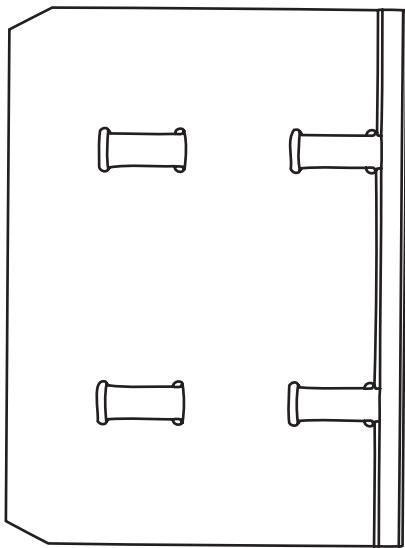


2x
Small support

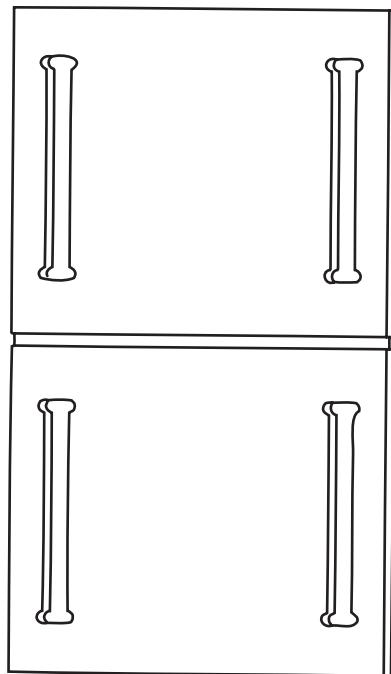




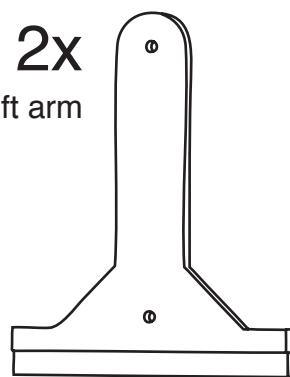
2x
Cradle wing



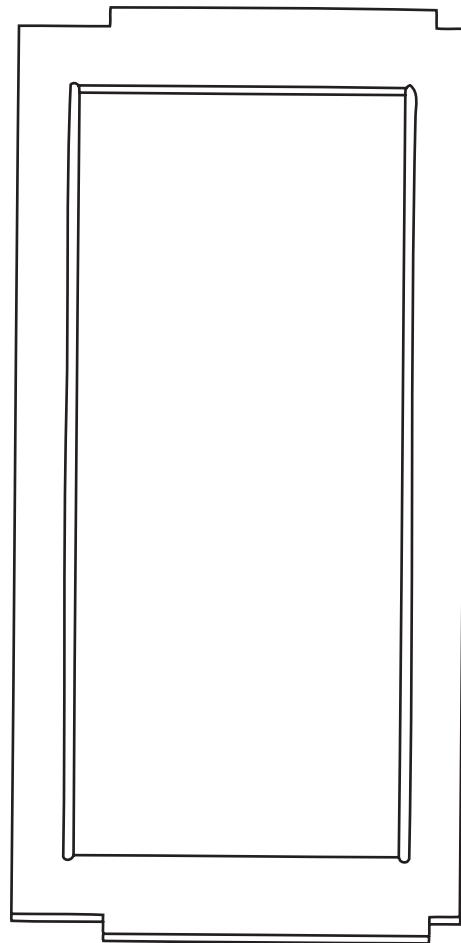
1x
Cradle platform



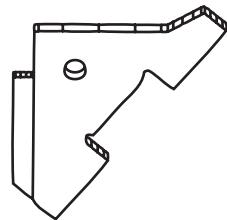
2x
Cradle lift arm



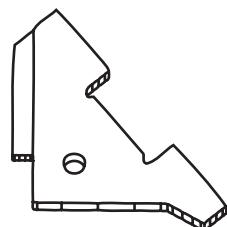
1x
Cradle base

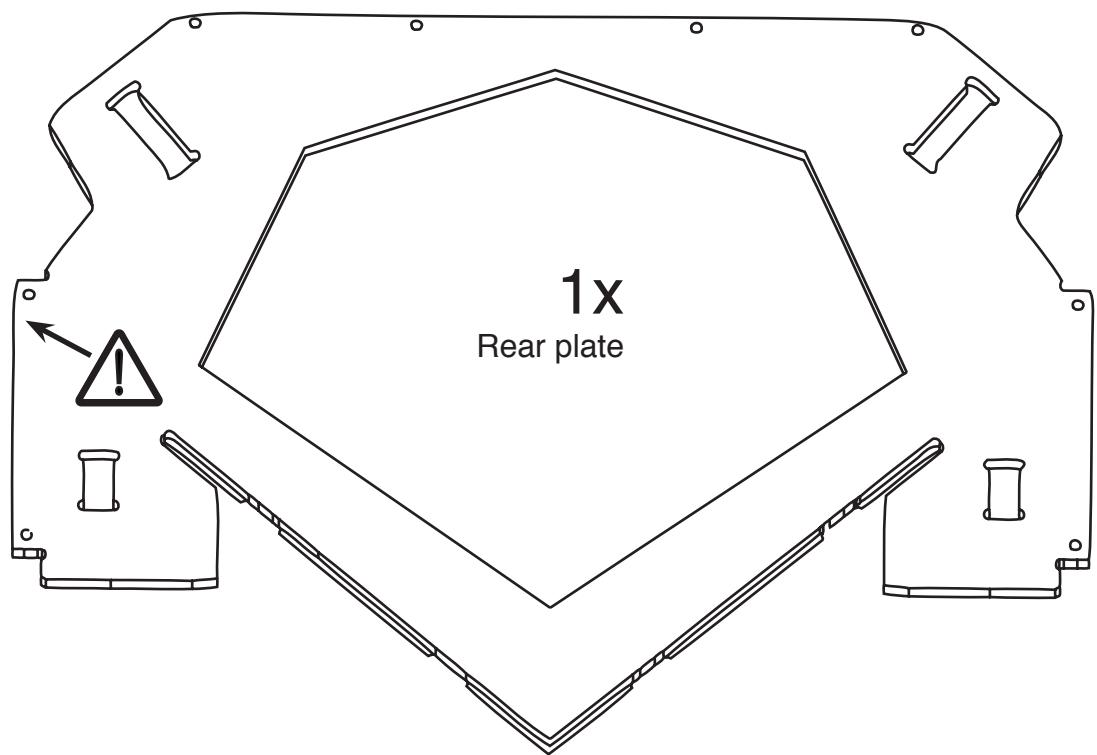
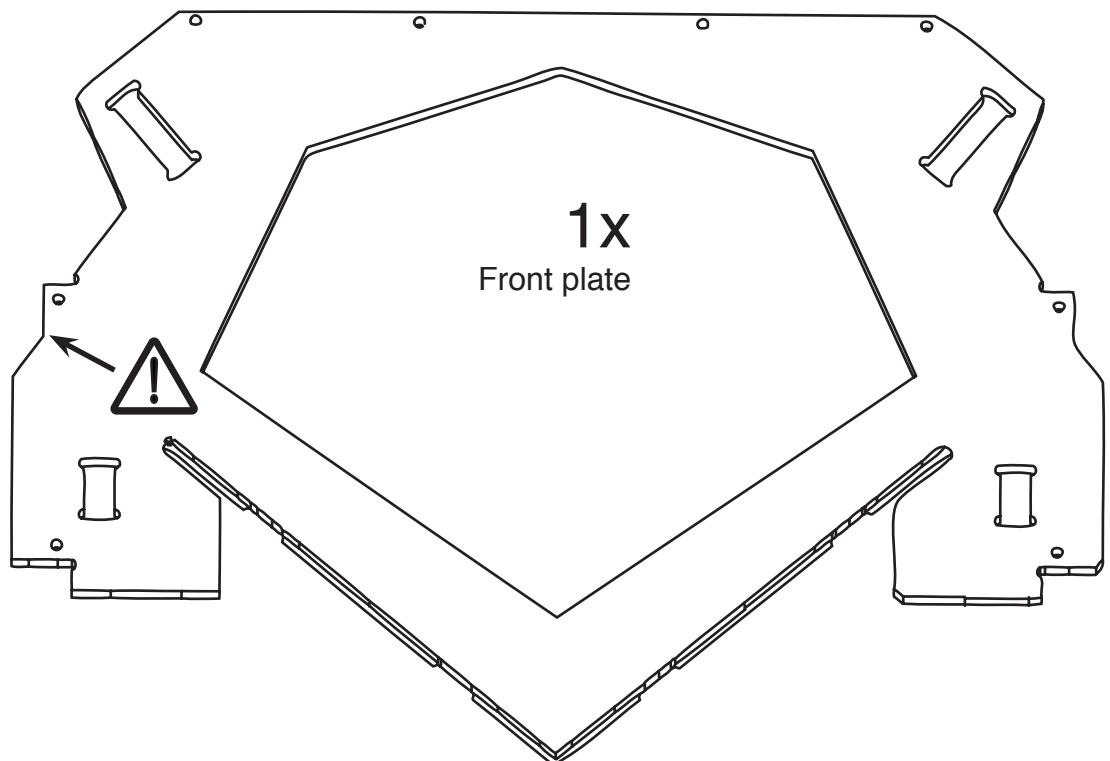


2x
Right cradle



2x
Left cradle





Kit contents: hardware

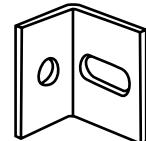
14x
2" 5/16"-18 bolt



6x
2-1/2" 5/16"-18 bolt



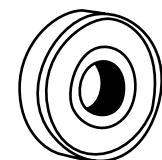
8x
L bracket



1x
1-1/4" 5/16"-18 bolt



24x
8x22x7 bearing



32x
5/16"-18 hex nut



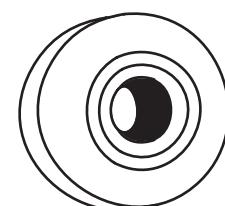
2x
Wing Nuts



36x
5/16" SAE washer



2x
pulley



46x
#8 1-5/8" coarse
drywall screw



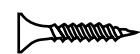
2x
1" 1/4"
camera bolt



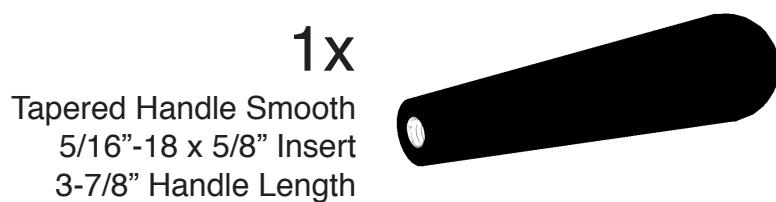
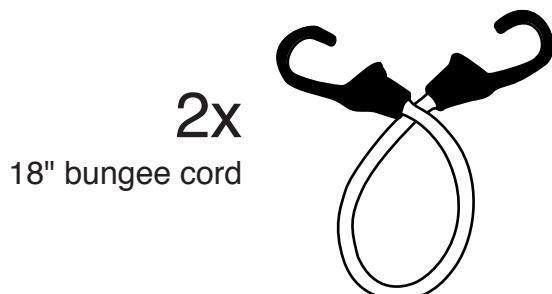
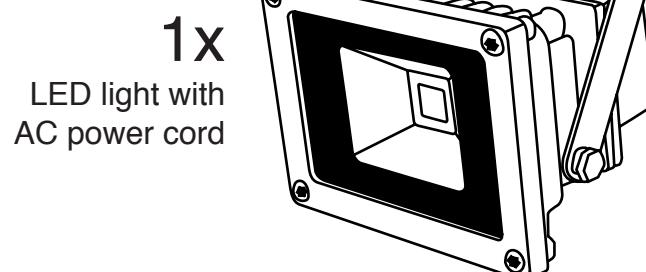
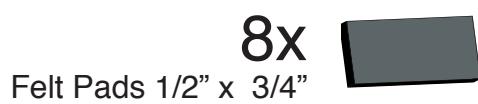
4x
#6 1"
wood screw



8x
#6 3/4"
drywall screw



The exact number of fasteners varies depending on versions and accessories. Don't be too worried about small discrepancies - your kit was intended to be assembled with the amount you received, and we usually included some extra as well. If you are critically short on any item, there may have been a mistake. Please contact the seller of your kit immediately.



X

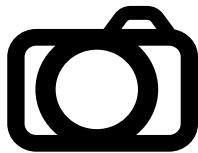
Kit contents: hardware

Hardware you will need to purchase

2x
Trigger

Cameras can be triggered by software such as Spreads or Scan Manager. Please see the DIY Book Scanner forums for more information. These software tools are constantly changing as the kit evolves, faster than this manual. Cameras can also be triggered by a bike-brake lever system described on the forums, but it is not recommended for most users.

2x
Digital Camera

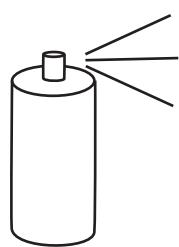


Canon A2200 recommended as an inexpensive option. As Canon models change very often (about three times yearly), it is important to note that this is just a guideline, and one which will quickly become outdated. The DIY Book Scanner forums offers further discussion as well as a Google Doc containing other users' experiences. This scanner can be used with many kinds of cameras, although software triggering only works with certain models. Generally speaking, the more you spend on cameras, the better image quality you will be able to achieve. If you find something you feel is a particularly good value, please share it with the forum.

2x
Glass 11" x 14"
3 mm or 1/8" thick



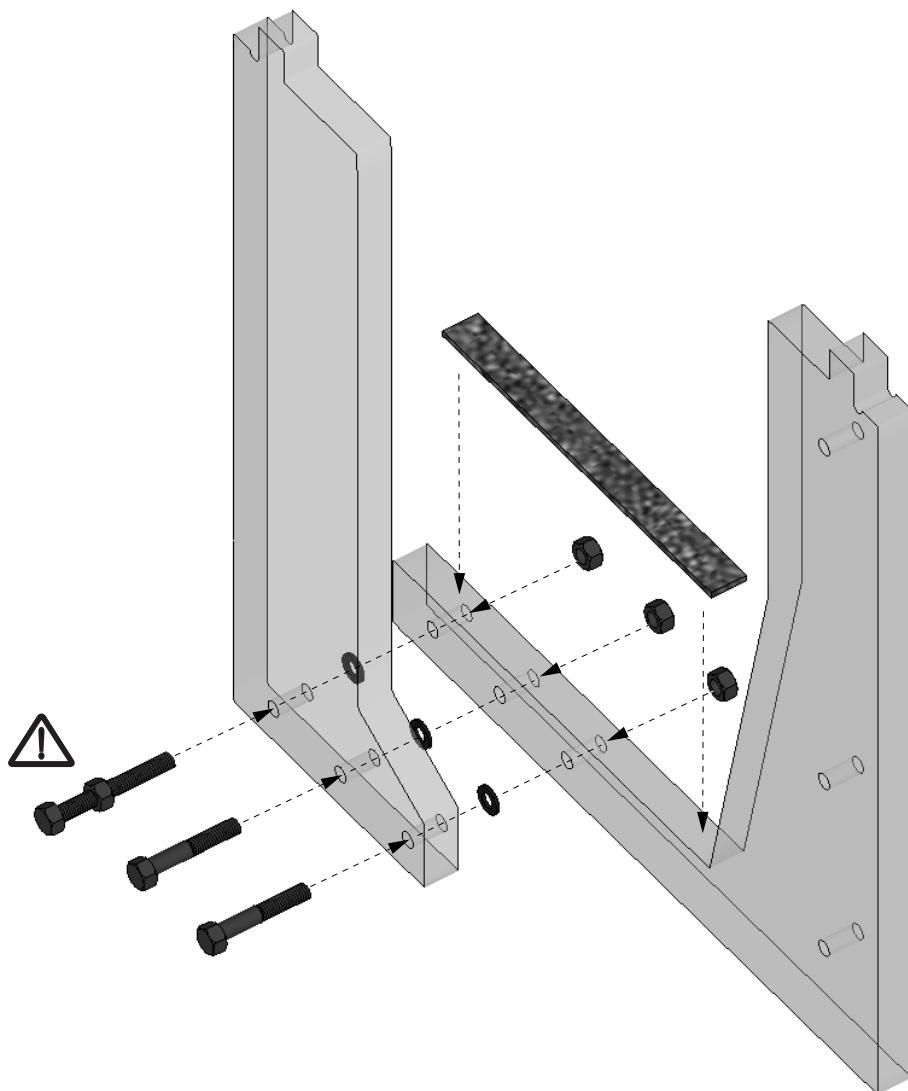
Plain plate glass, from any hardware or framing store, works fine. If you have extra budget, buy Anti-reflective coated glass. Do not buy "Anti-Glare" glass which has a frosted surface. Acrylic plastic is an OK substitute but has problems with static electricity and flexing. Polycarbonate is similar.



The kit needs to be painted black with flat black latex or flat black spray paint. For latex, brush-on flat black is appropriate. It must be "flat" and not "semi-gloss" or "gloss". For spray paint, the Rustoleum 2X coverage Flat Black is perfect. Your choice, both work well. I prefer the spray paint but some people may not have a safe place to apply it.

1. Assembly instructions

2x  2" 5/16"-18 bolt 4x 
1x  2-1/2" 5/16"-18 bolt 3x  1x 
Felt Strip



The distance between the nut and the bolt head should be about an inch.



The wooden parts need to be painted, see advice on page XI.

2.

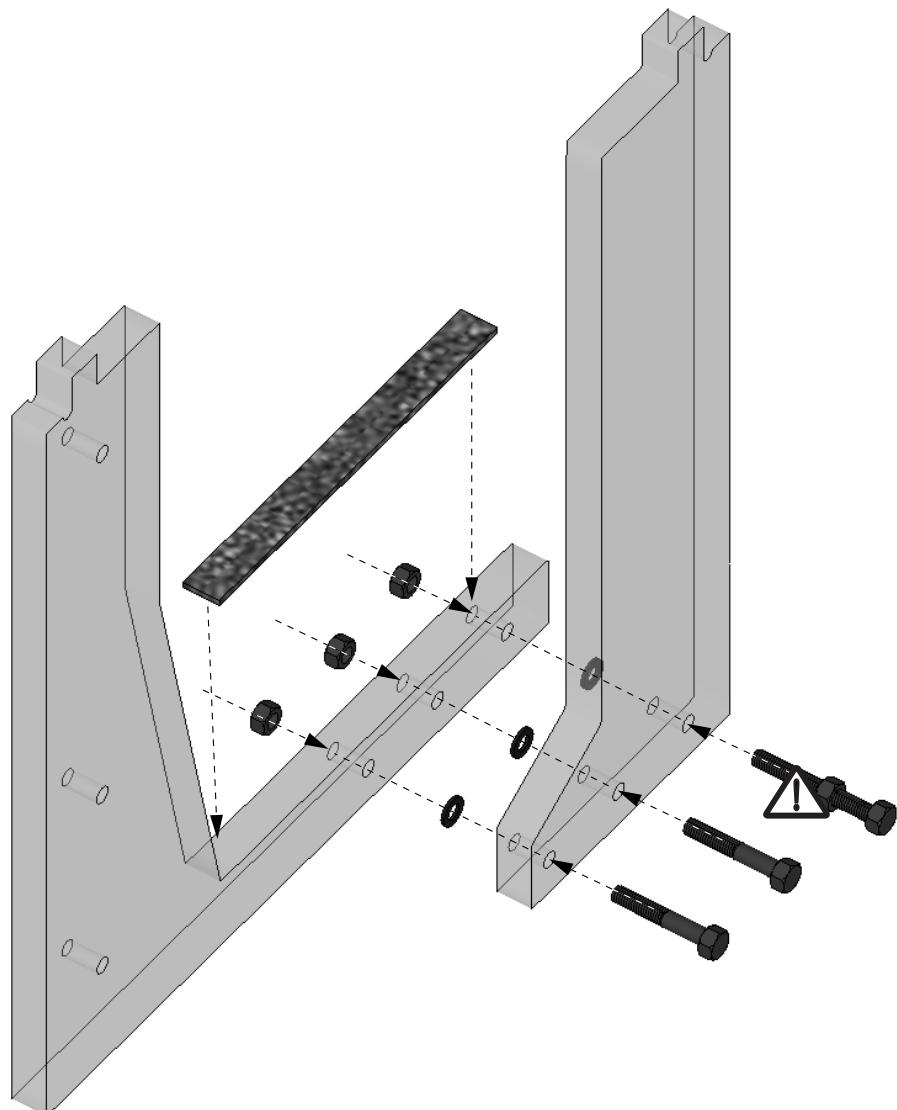
2x  2" 5/16"-18 bolt

4x 

1x  2-1/2" 5/16"-18 bolt

3x 

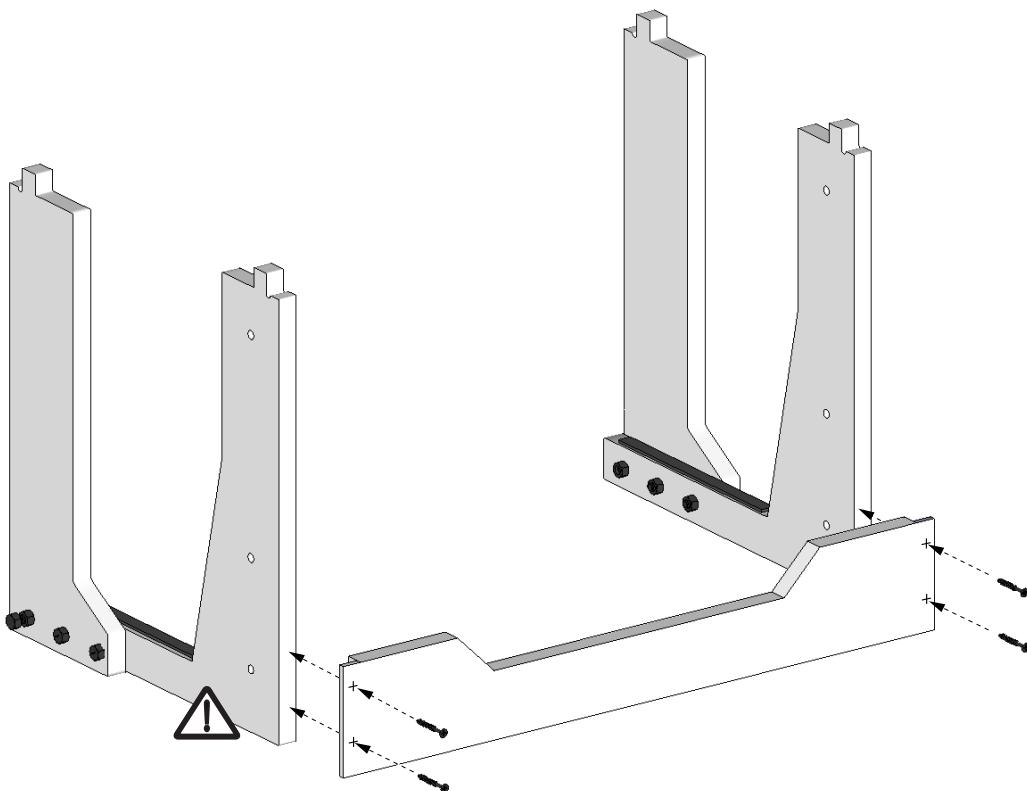
1x  Felt Strip



 The distance between the nut and the bolt head
should be about an inch.

3.

4x  (1 5/8")



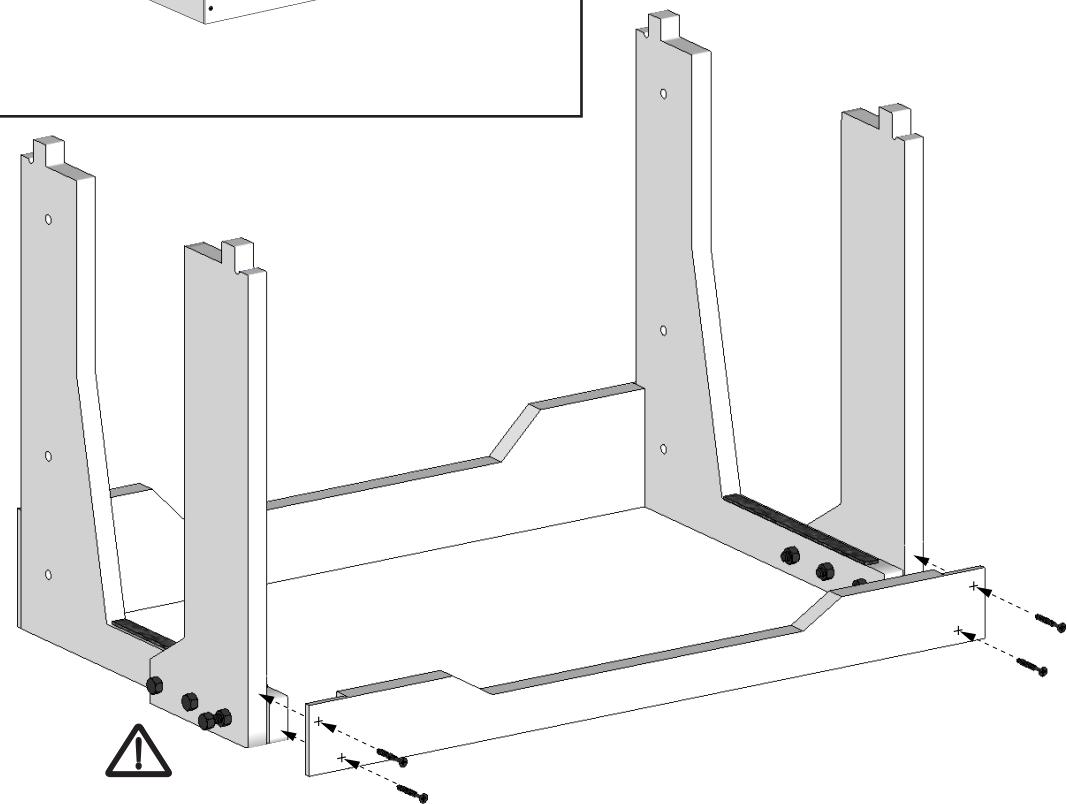
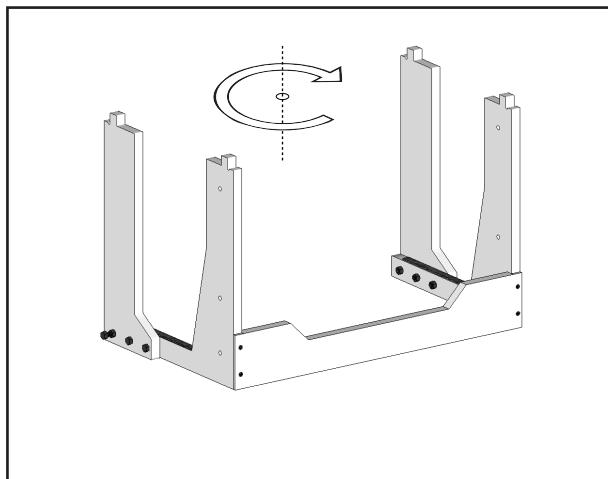
Drill a 1/8" pilot hole, countersink, and install a screw.
Then do the same with each subsequent screw.



Be sure not to drill into the hole in the large support!

4.

4x  (1 5/8")



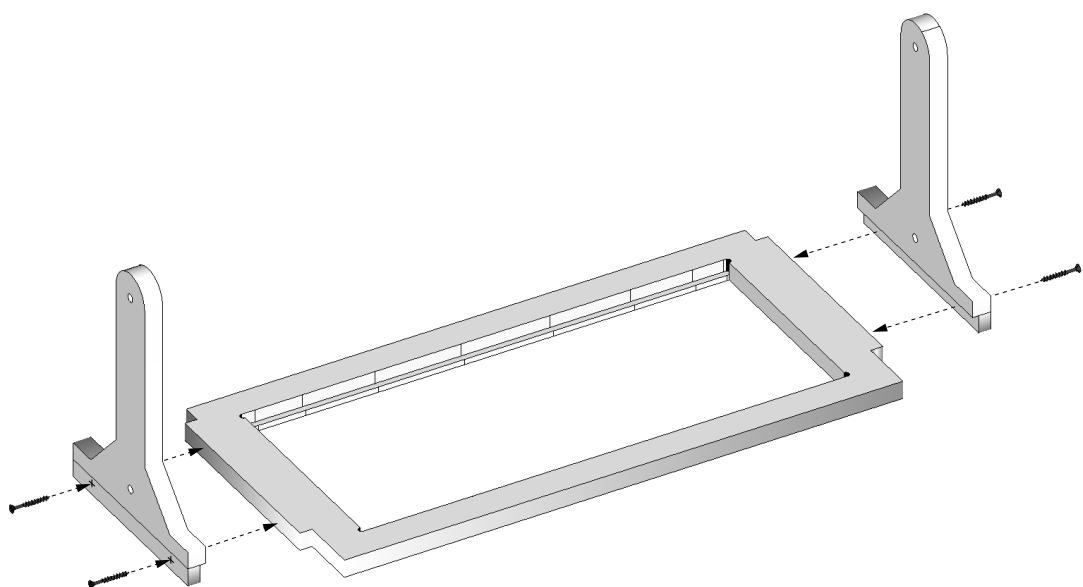
Drill a 1/8" pilot hole, countersink, and install a screw.
Then do the same with each subsequent screw.



Be sure not to drill into the bolt!

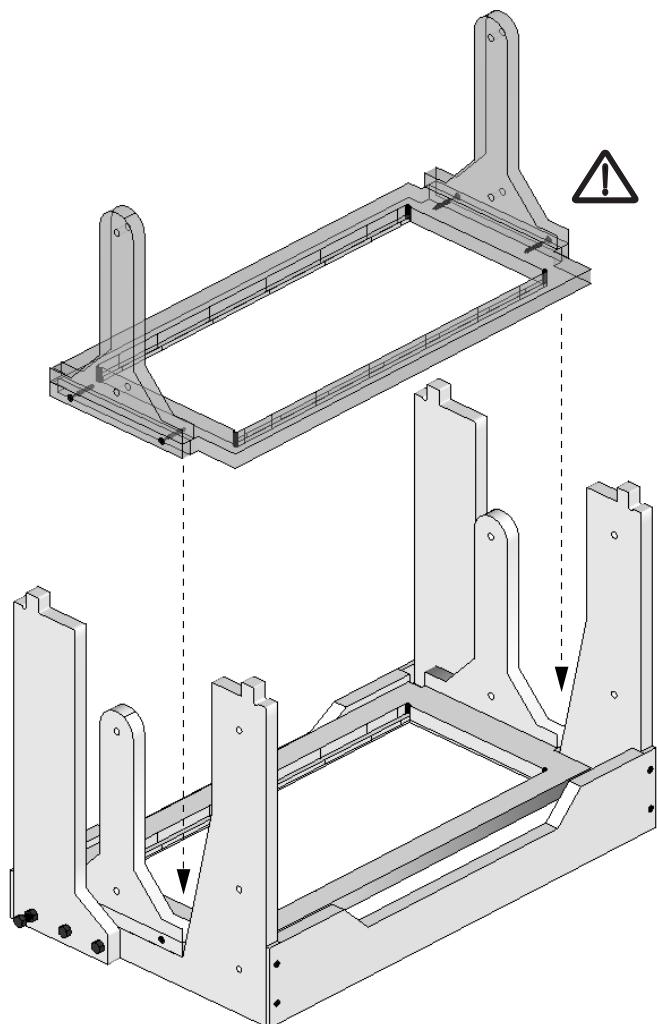
5.

4x  (1 5/8")



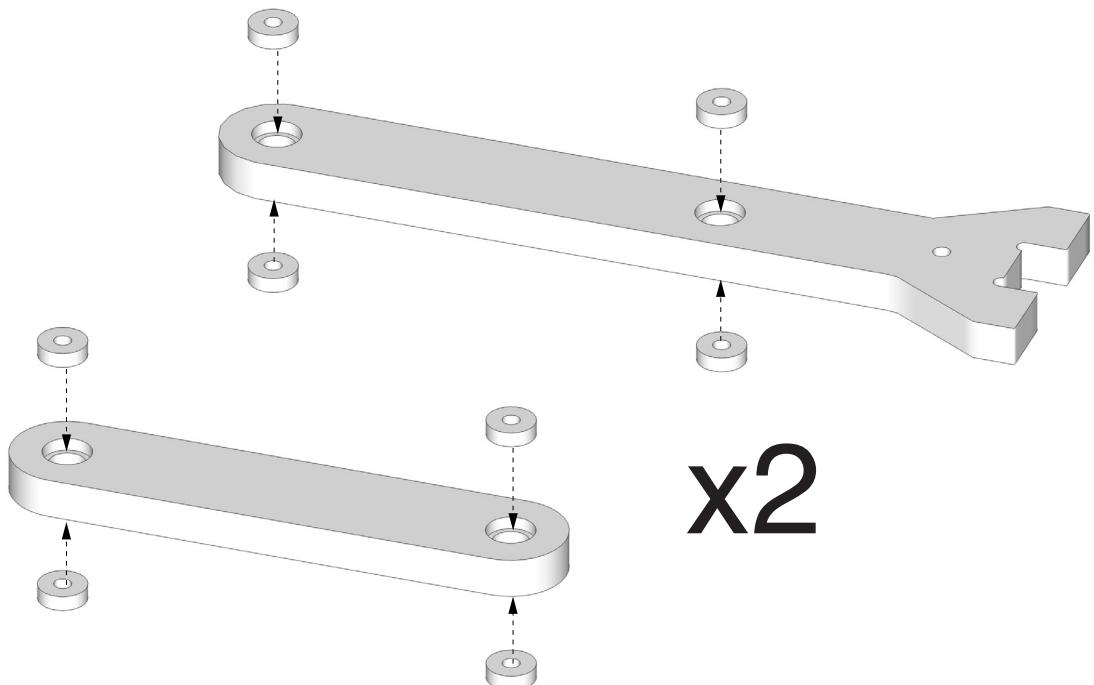
Drill a 1/8" pilot hole, countersink, and install a screw.
Then do the same with each subsequent screw.

6.



⚠ The long cutout goes to the front, while
the short cutout goes to the rear.

7.



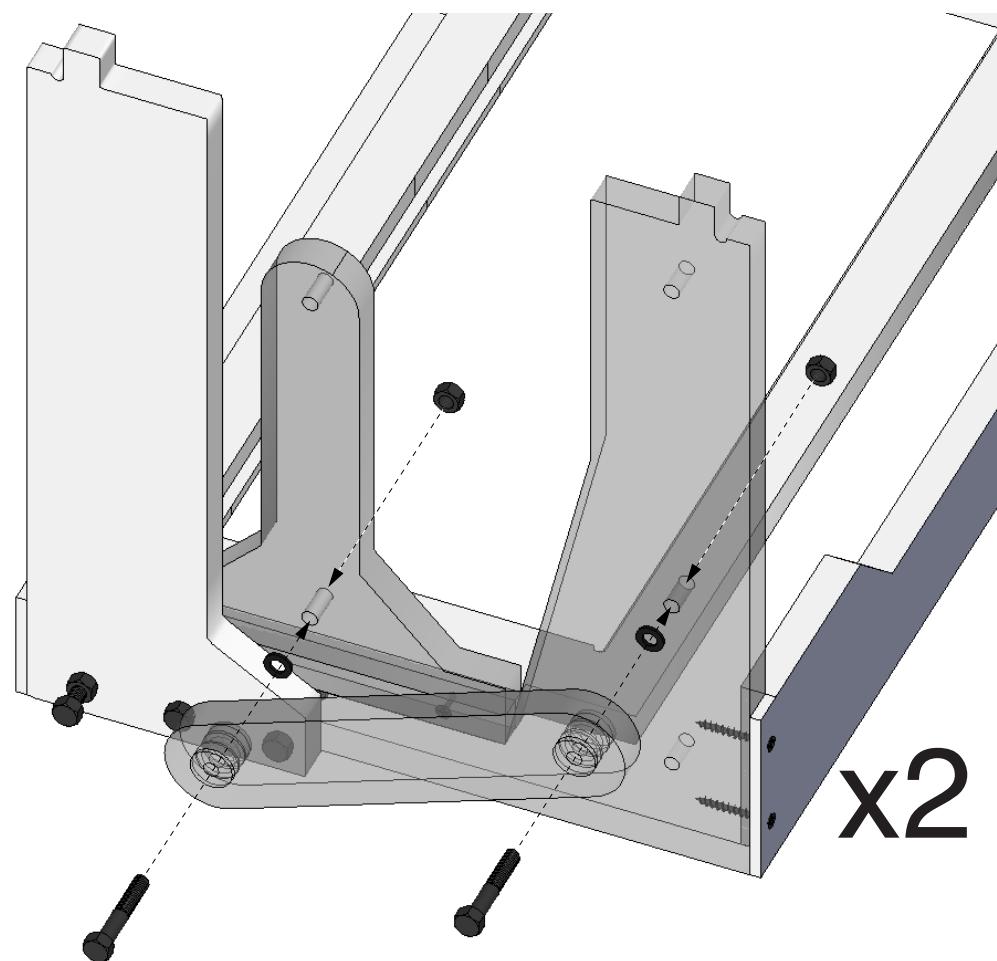
You may need a hammer to tap the bearings into place.

8.

4x  (2")

4x 

4x 



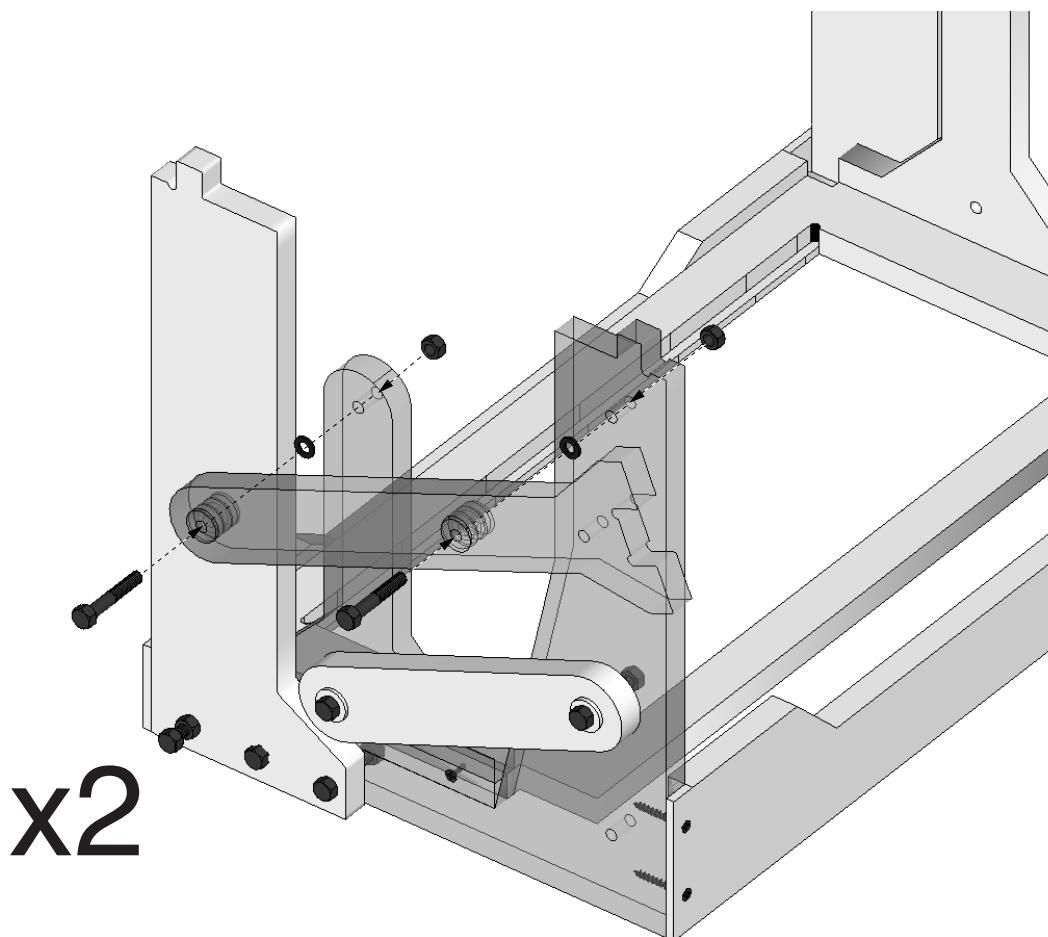
Put the bolts through the bearings first (you may need to tap them in with a hammer), then put the washers onto the bolts, and fit the assembly into the holes. Secure with nuts, finger-tightened.

9.

4x  (2")

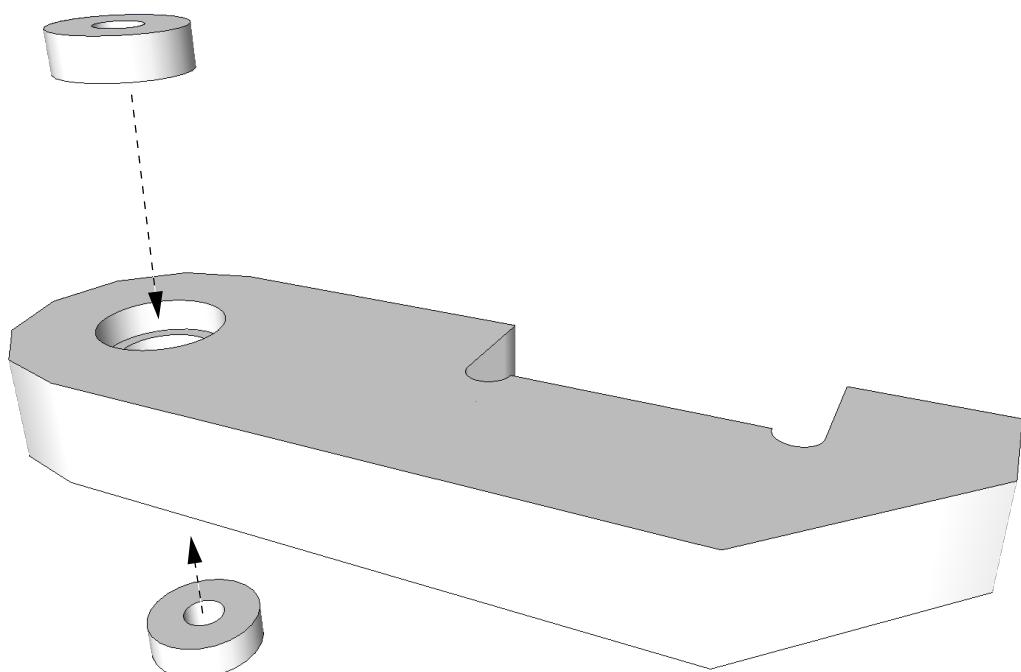
4x 

4x 



Put the bolts through the bearings first (you may need to tap them in with a hammer), then put the washers onto the bolts, and fit the assembly into the holes. Secure with nuts, finger-tightened.

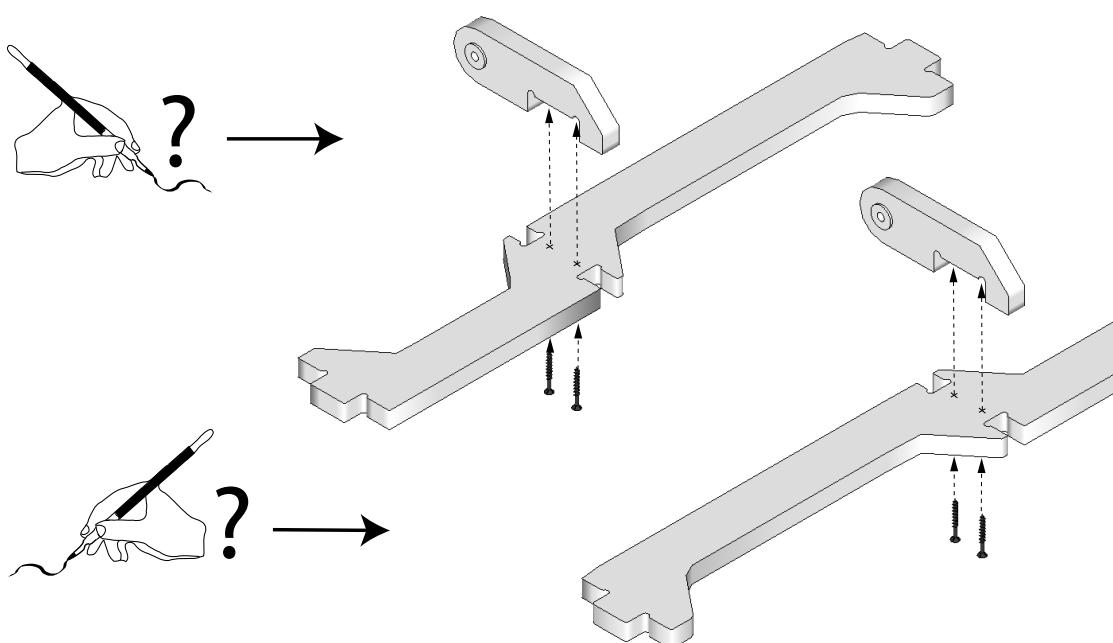
10.



You may need a hammer to tap the bearings into place.

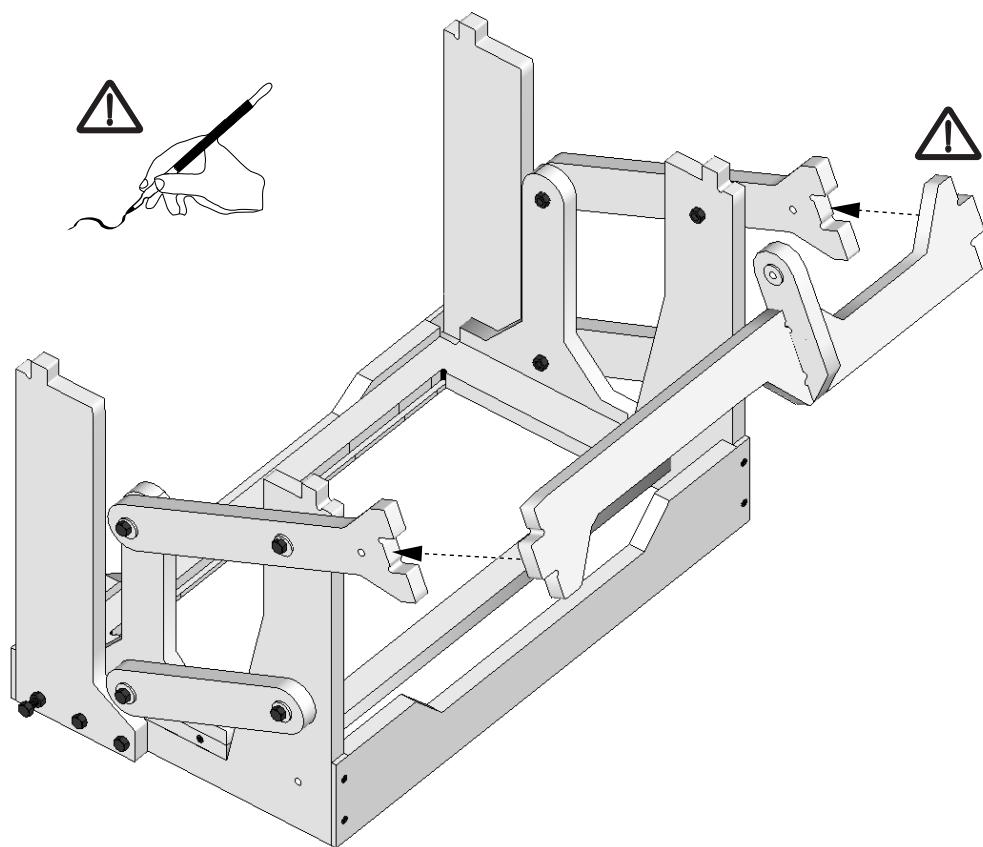
11.

2x  (1 5/8")



If you're left-handed, then the smaller cutout on the handle arm goes on the left, facing up. If you're right-handed, then it goes on the right, facing up.

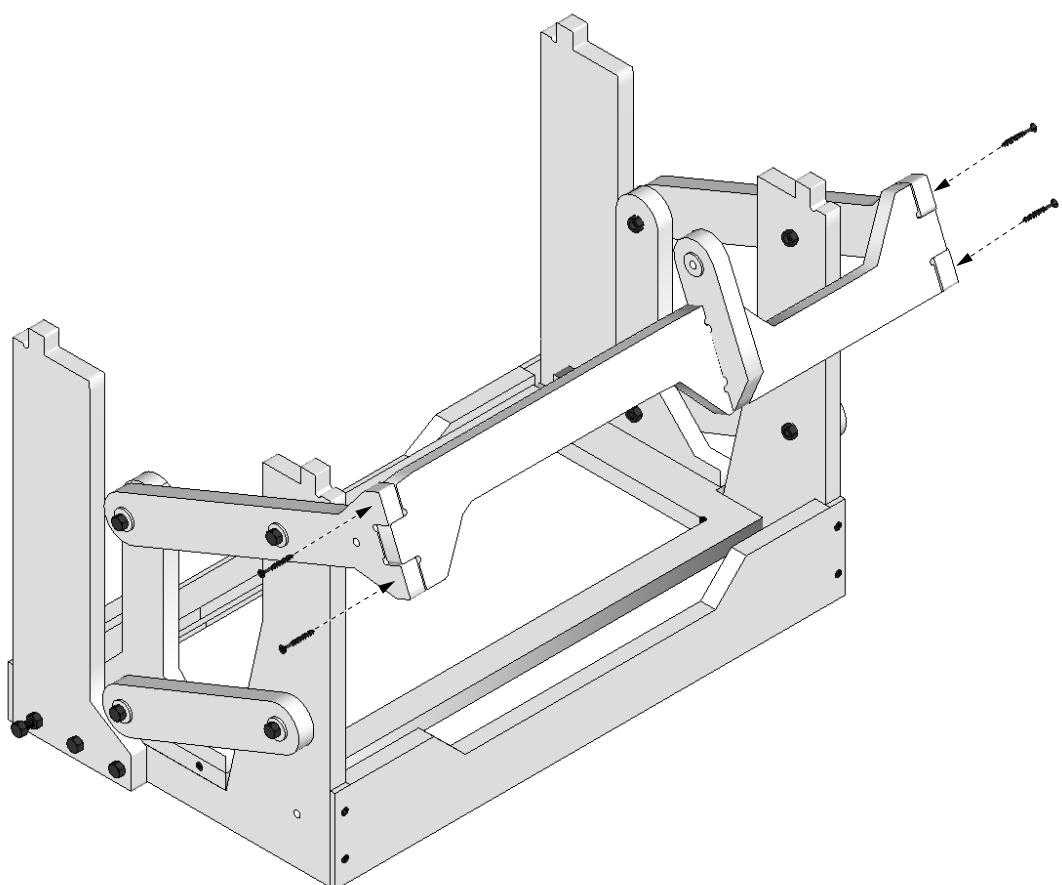
12.



This diagram shows the handle arm for right-handed installation, with the small cutout on the right, facing up. For left-handed installation, the small cutout must be on the left, facing up.

13.

4x  (1 5/8")



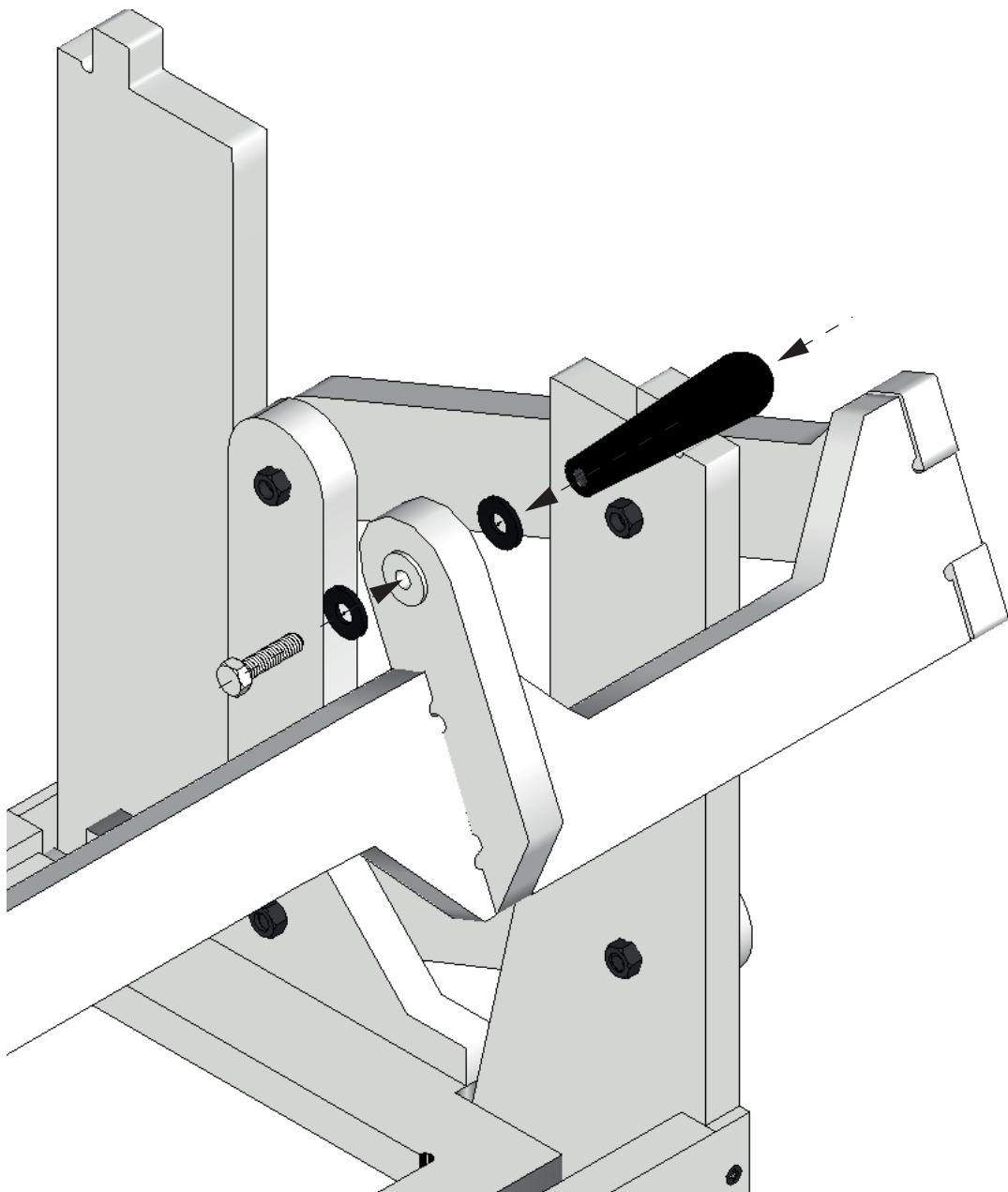
Drill a 1/8" pilot hole, countersink, and install a screw.
Then do the same with each subsequent screw.

14.



1x (1 1/4")

2x

A small black O-ring.

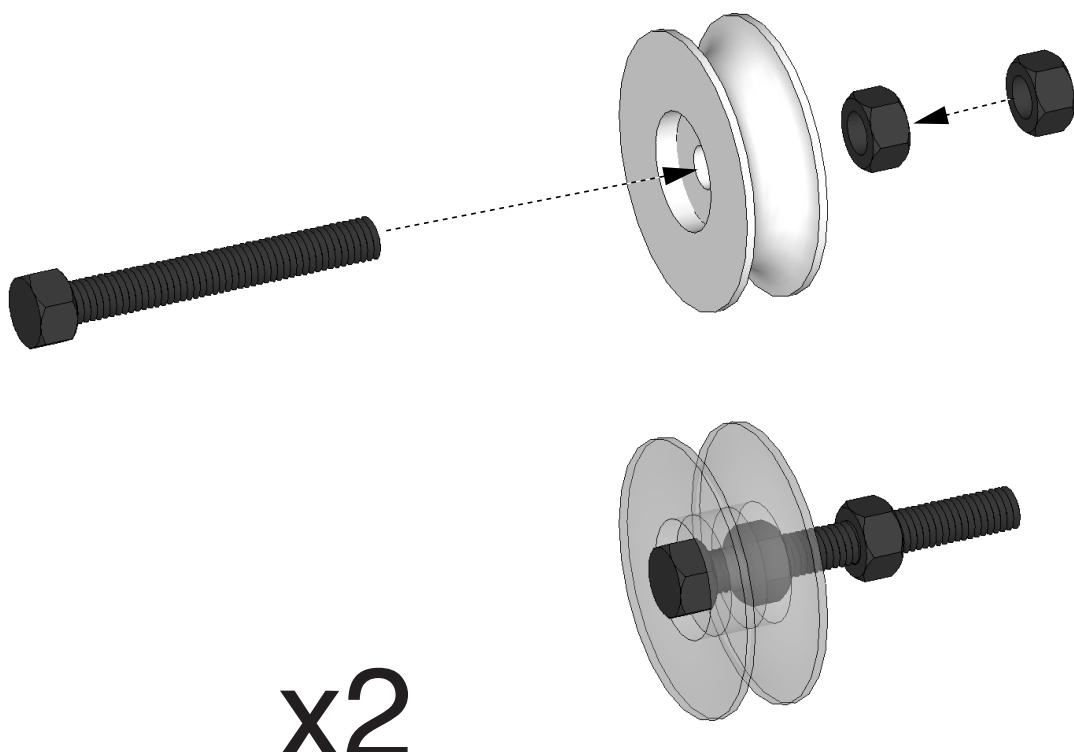
The handle may be supplied in a different type . See
Addendum for different alternatives.

15.

2x  (2 1/2")

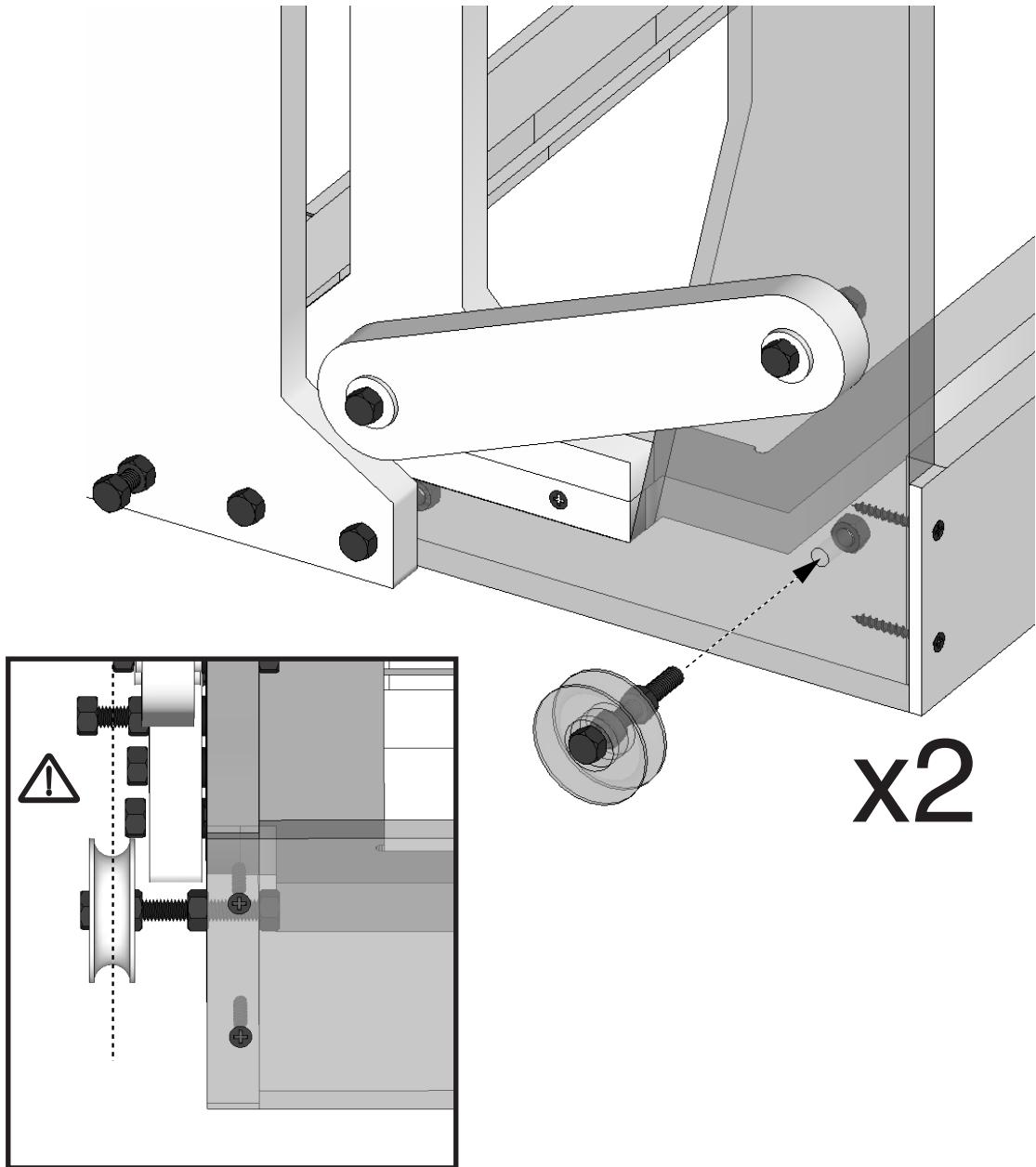
4x 

2x 



16.

2x 



The hole should be just small enough that the bolt screws into the wood. Tighten the bolt.

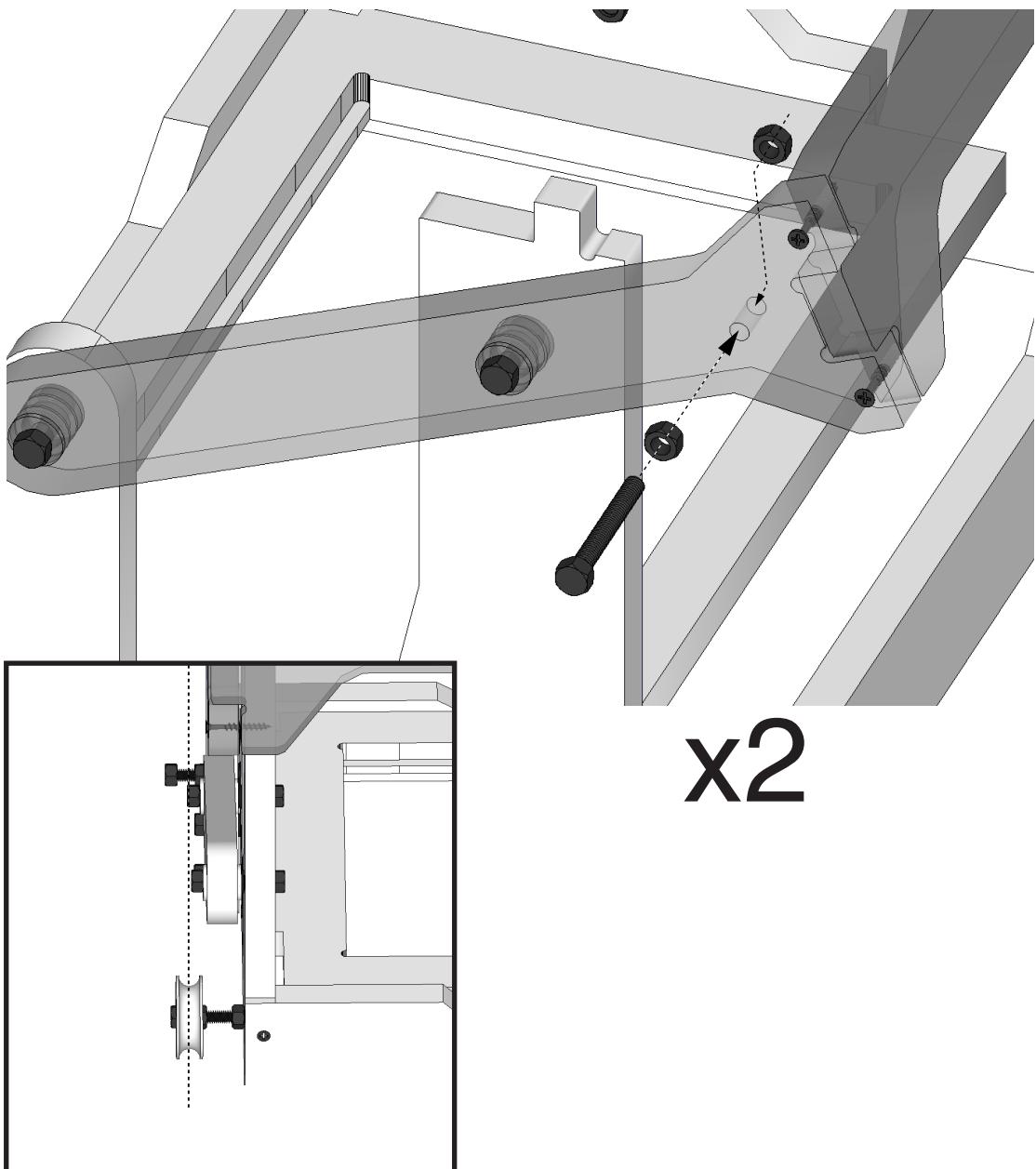


Don't screw the bolt all the way in. Line up the pulley with the bolt that sticks out.

17.

2x  (2 1/2")

4x 



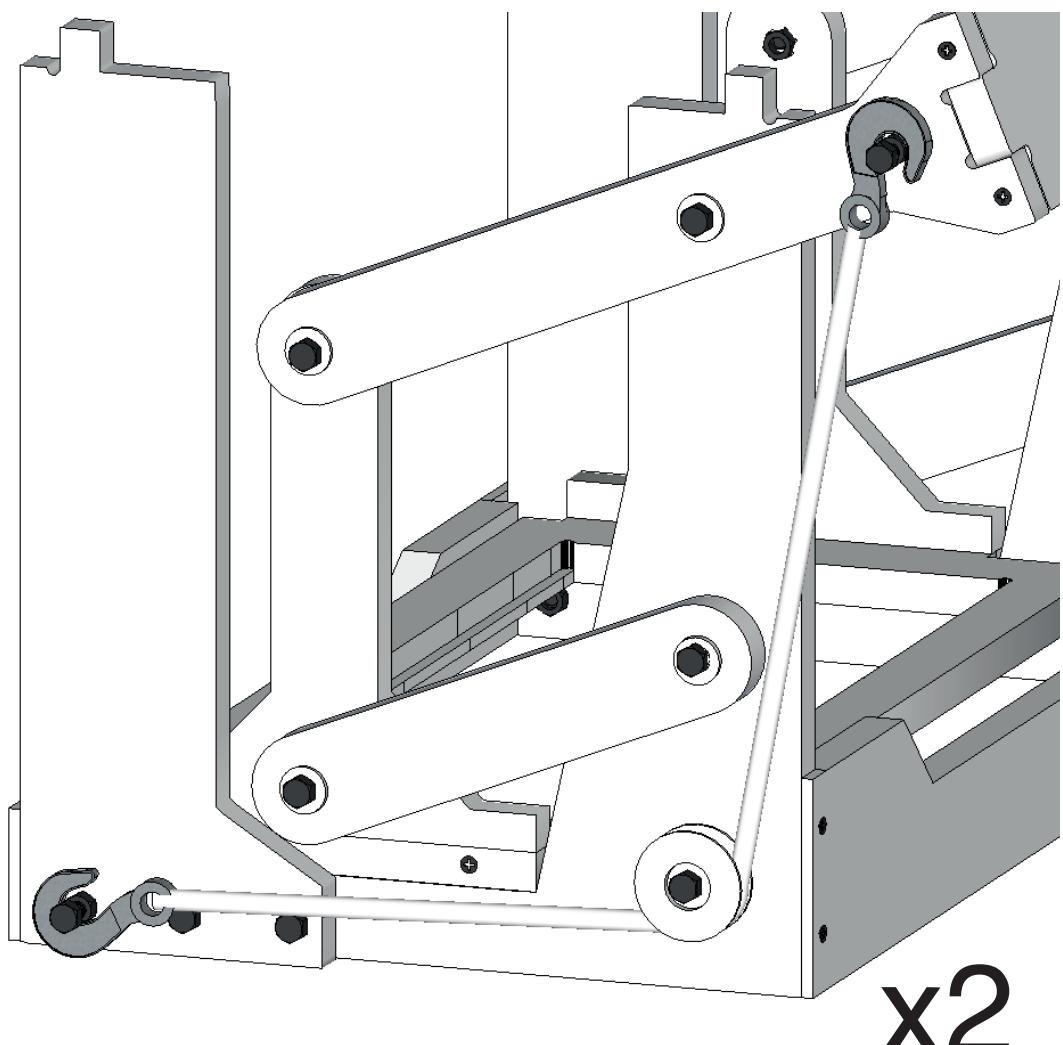
The hole should be just small enough that the bolt screws into the wood. Tighten the bolt.



Don't screw the bolt all the way in. Line up the bolt with the pulley.

18.

2x

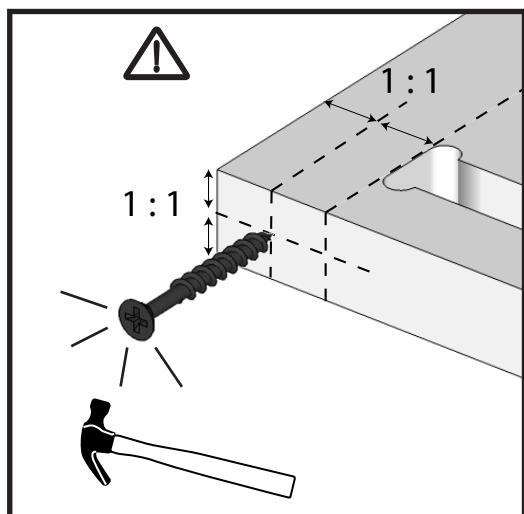
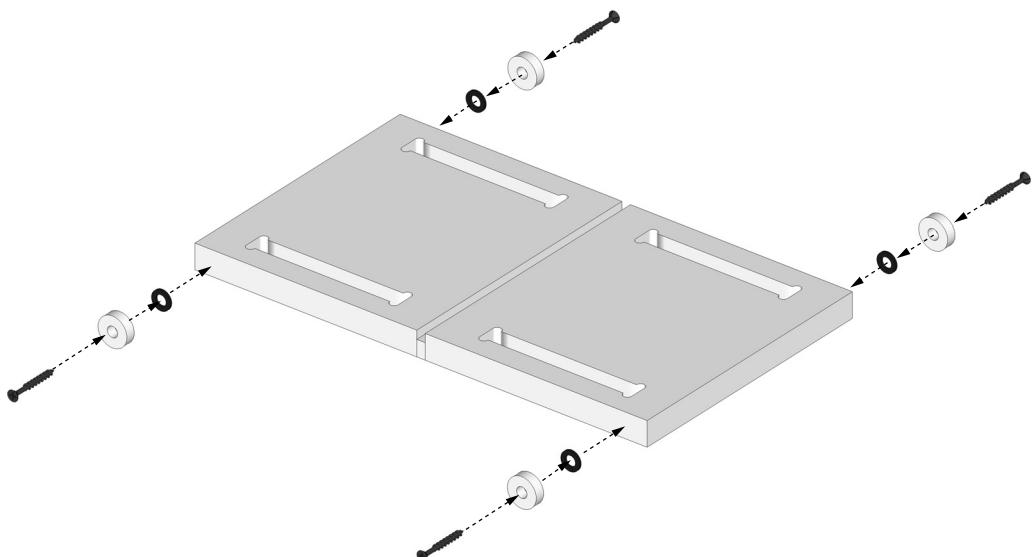


19.

4x  (1")

4x 

4x 



Take a screw and place its point where you want to drill: at about half the thickness of the wood, and about halfway between the edge of the wood and the edge of the long slot. Hit the screw on the head once or twice with a hammer to make an indented mark in the wood. Now your drill bit will not wander from that location.

Drill a 1/8" pilot hole, and install a screw. Roughly center the washer so that the bearing spins freely. If it does not spin freely, loosen the screw slightly. Then repeat the procedure with each subsequent screw.

20.

2x



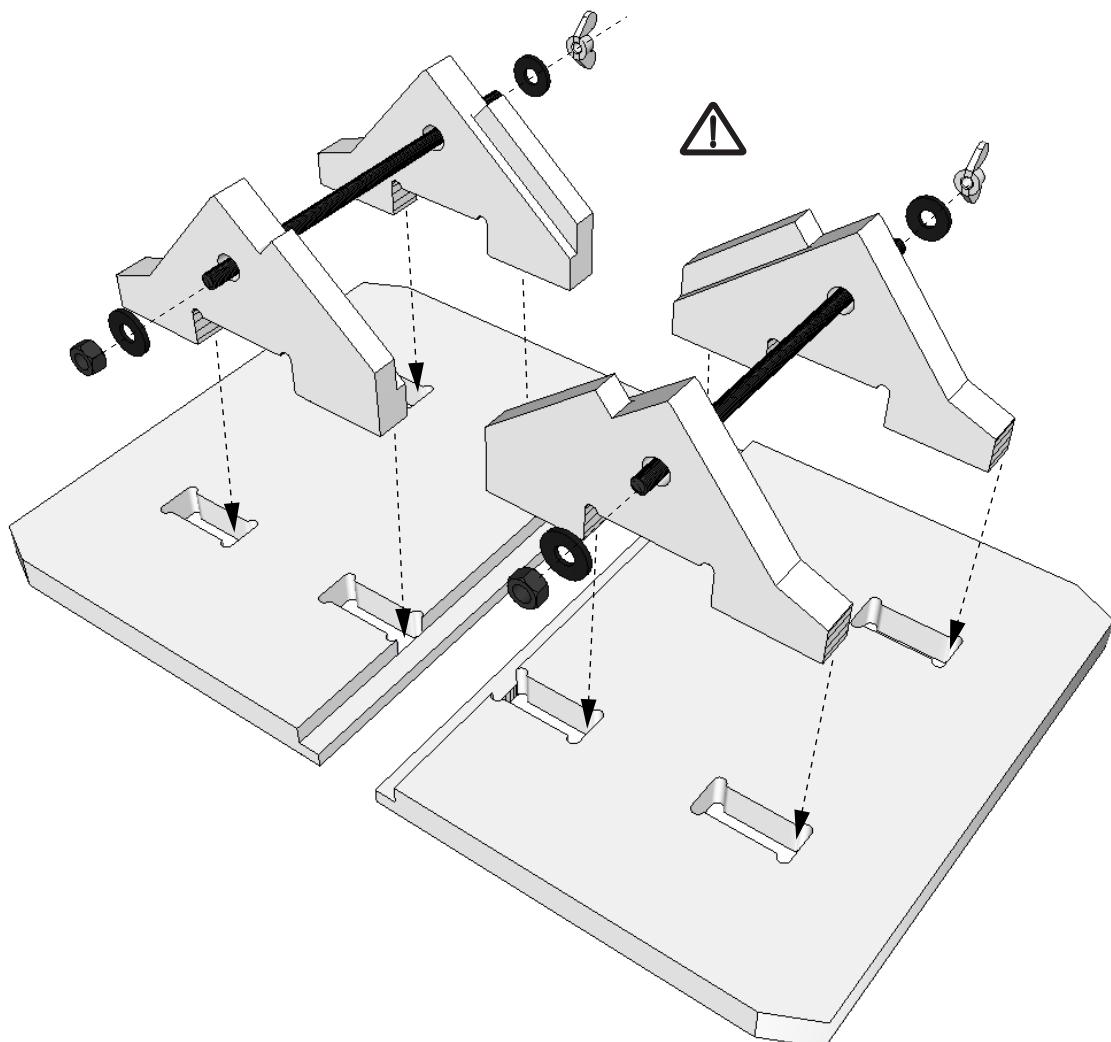
2x



2x

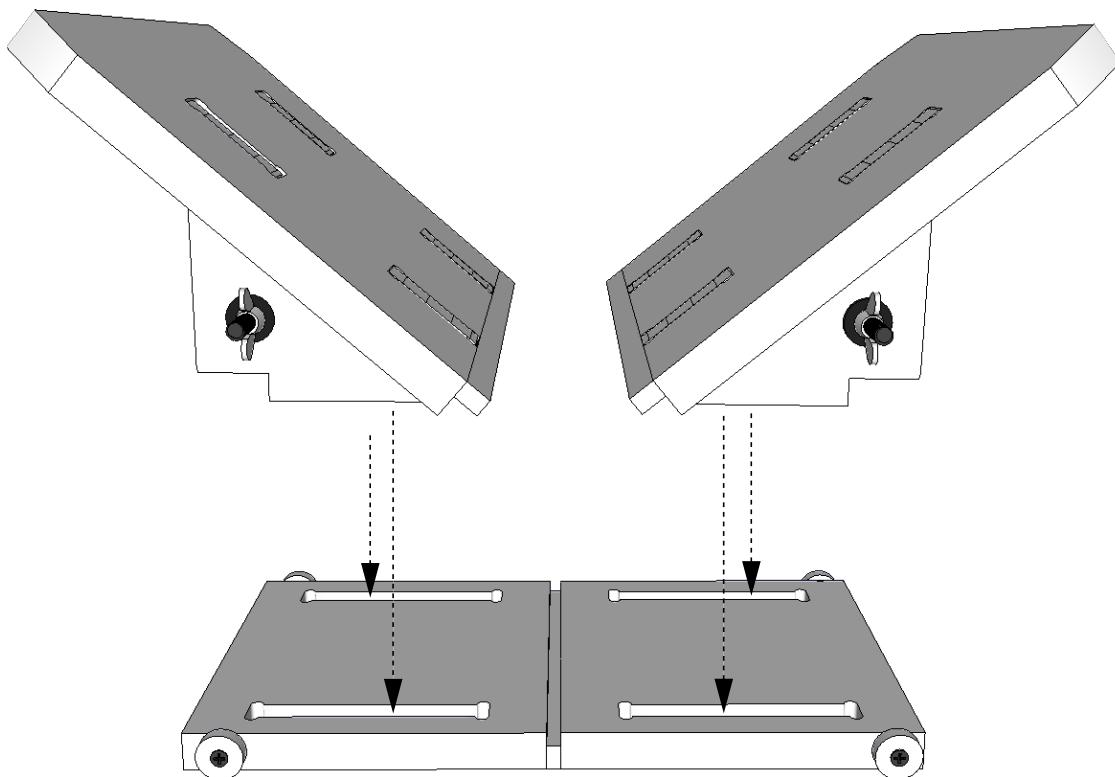


4 x

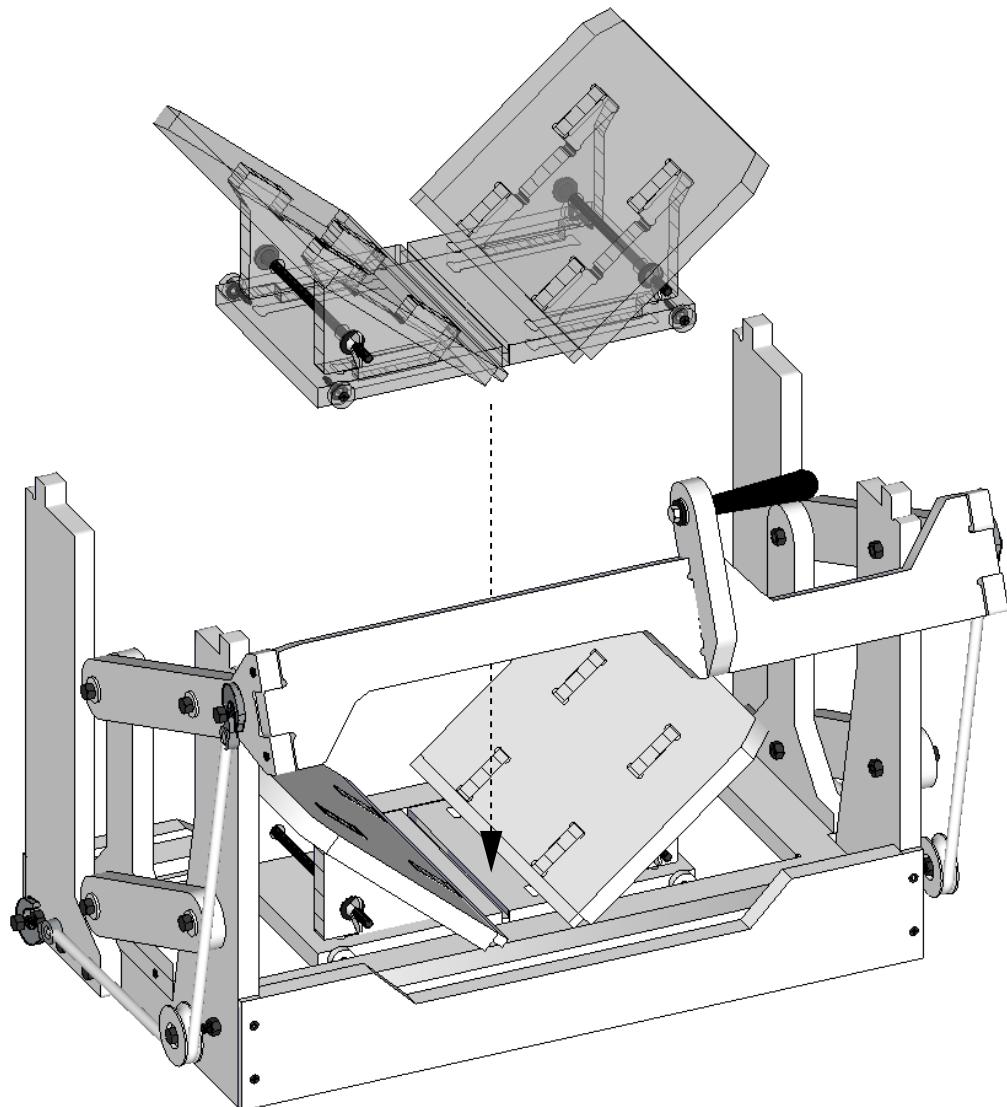


Make sure the tabs face the right way: outside vertically,
and inside horizontally.

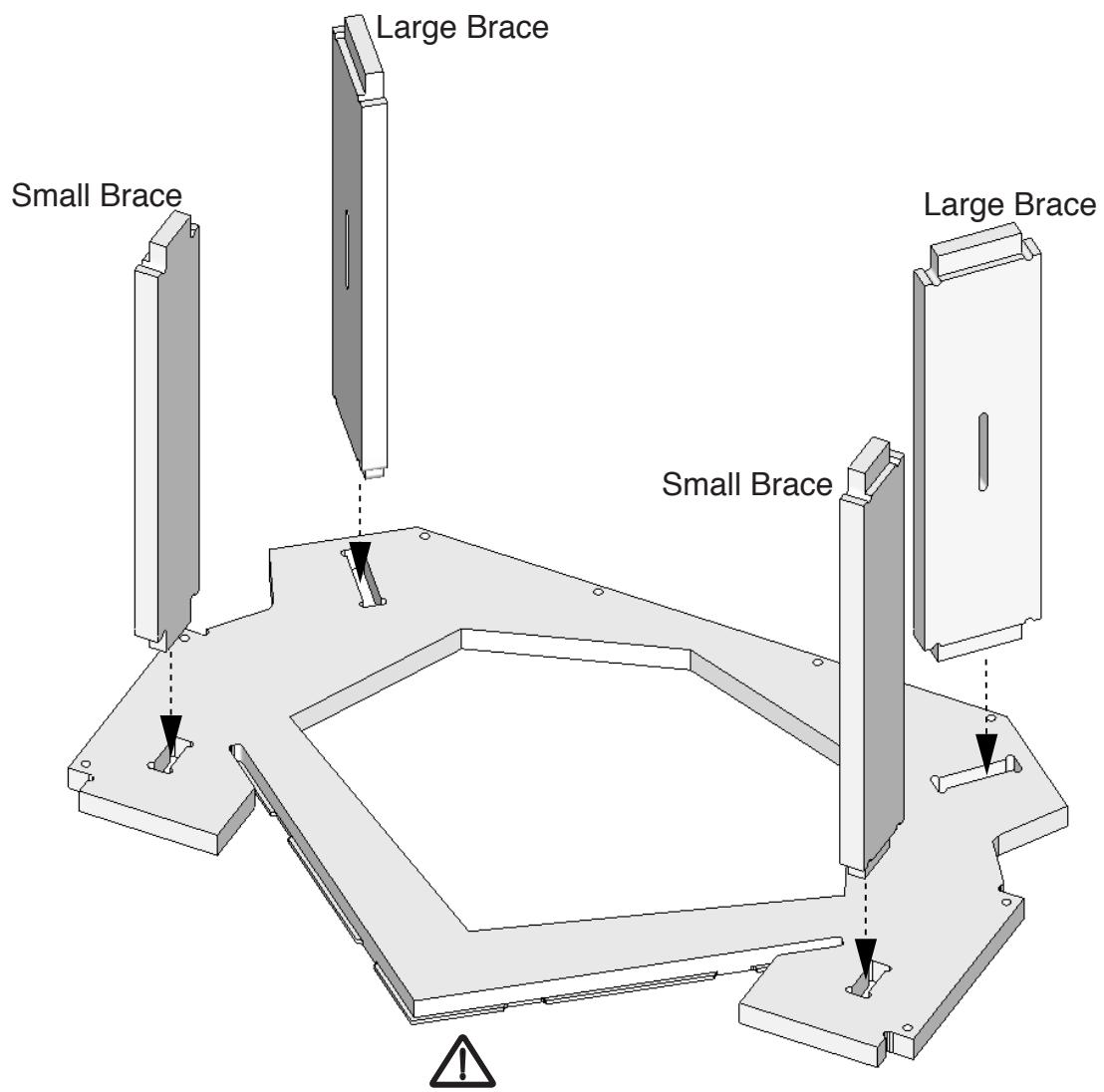
21.



22.



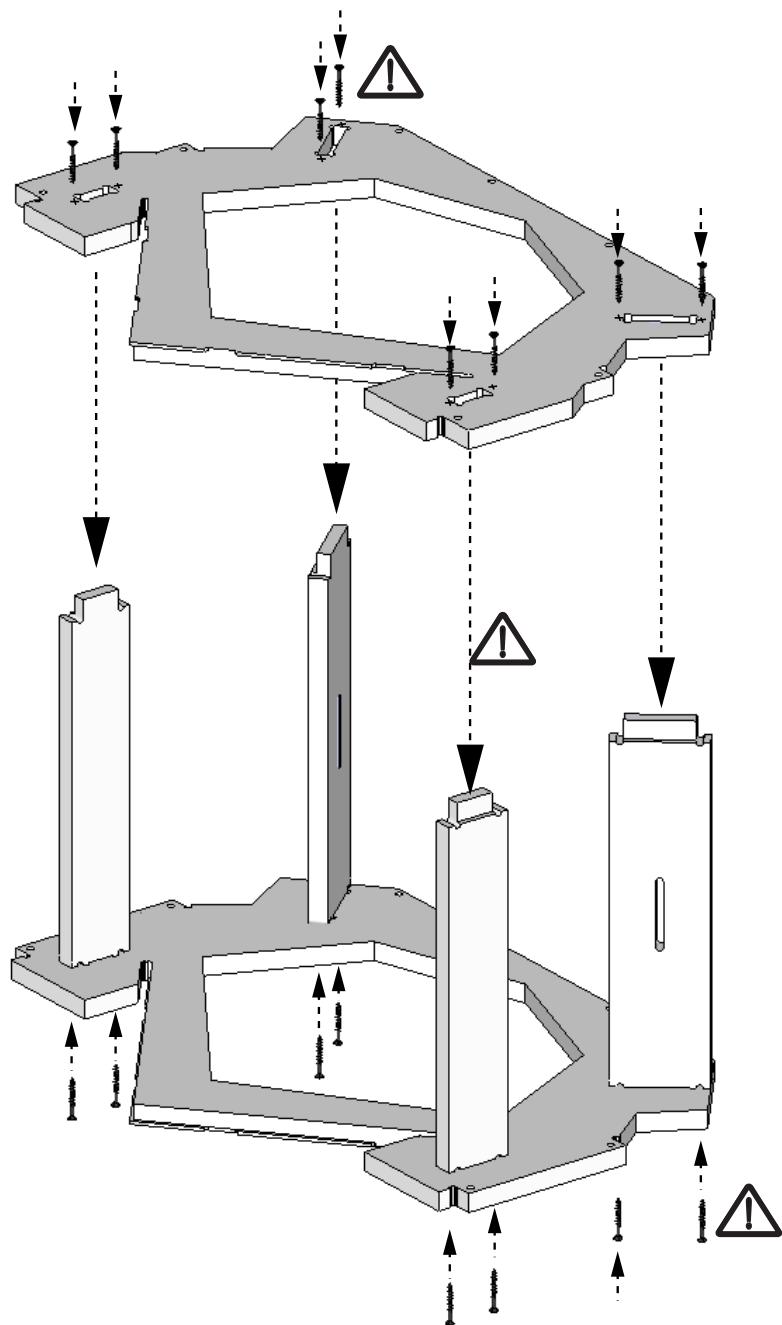
23.



⚠ Make sure the lip faces up.

24.

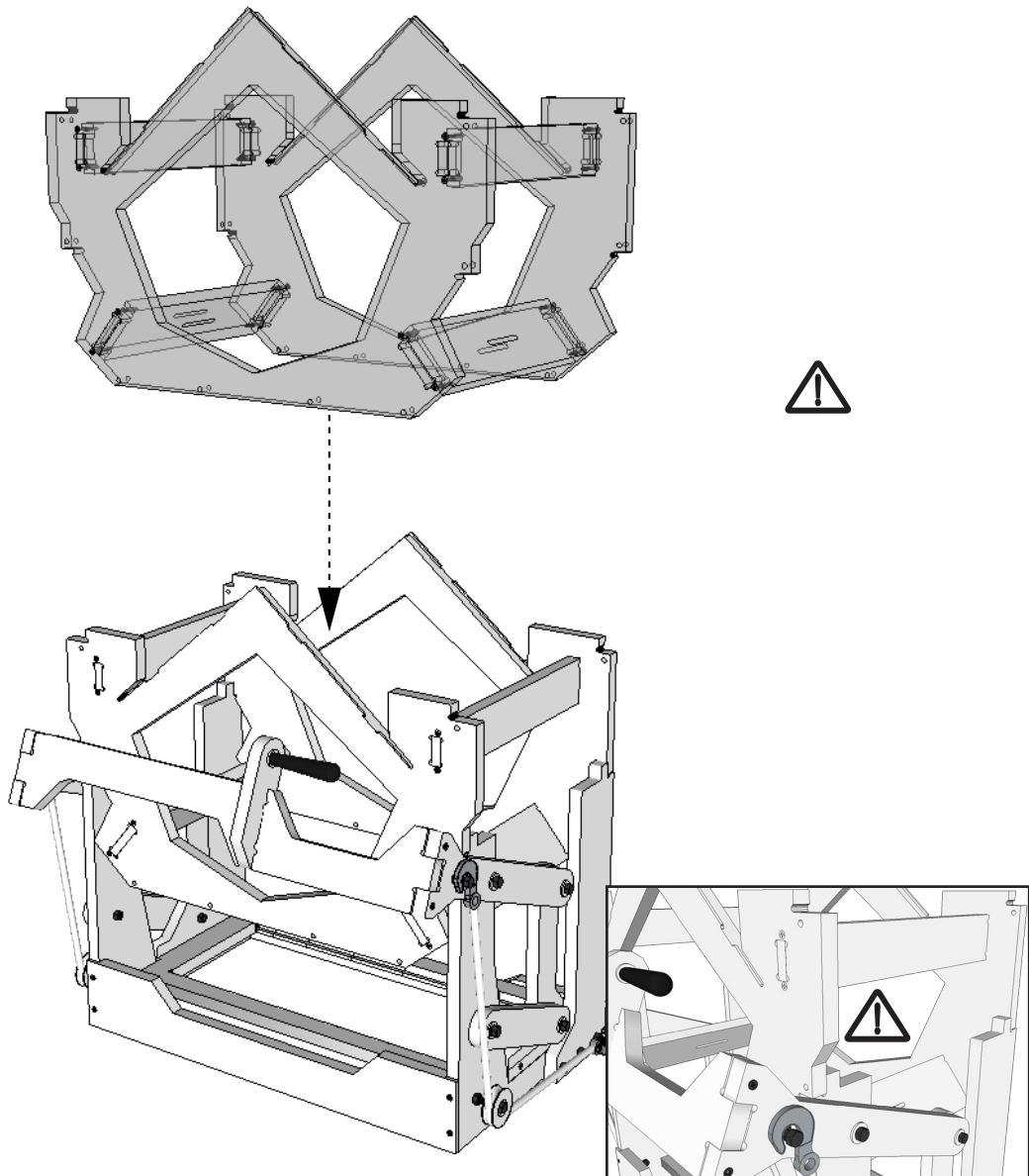
16x  (1 5/8")



Make sure the lip faces down.

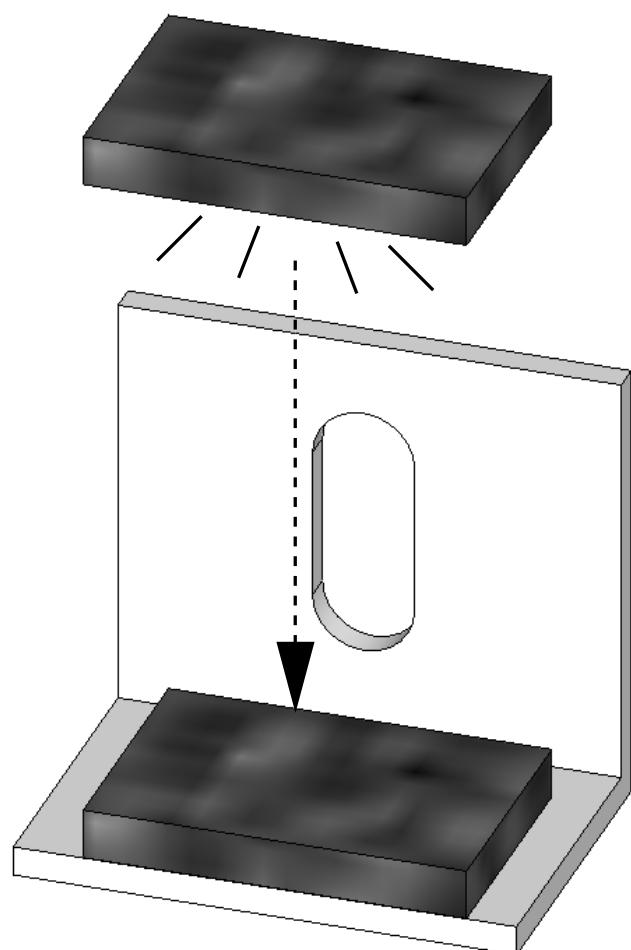
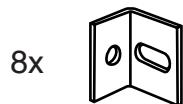
Drill, countersink, and install screws to secure large and small braces on both sides

25.



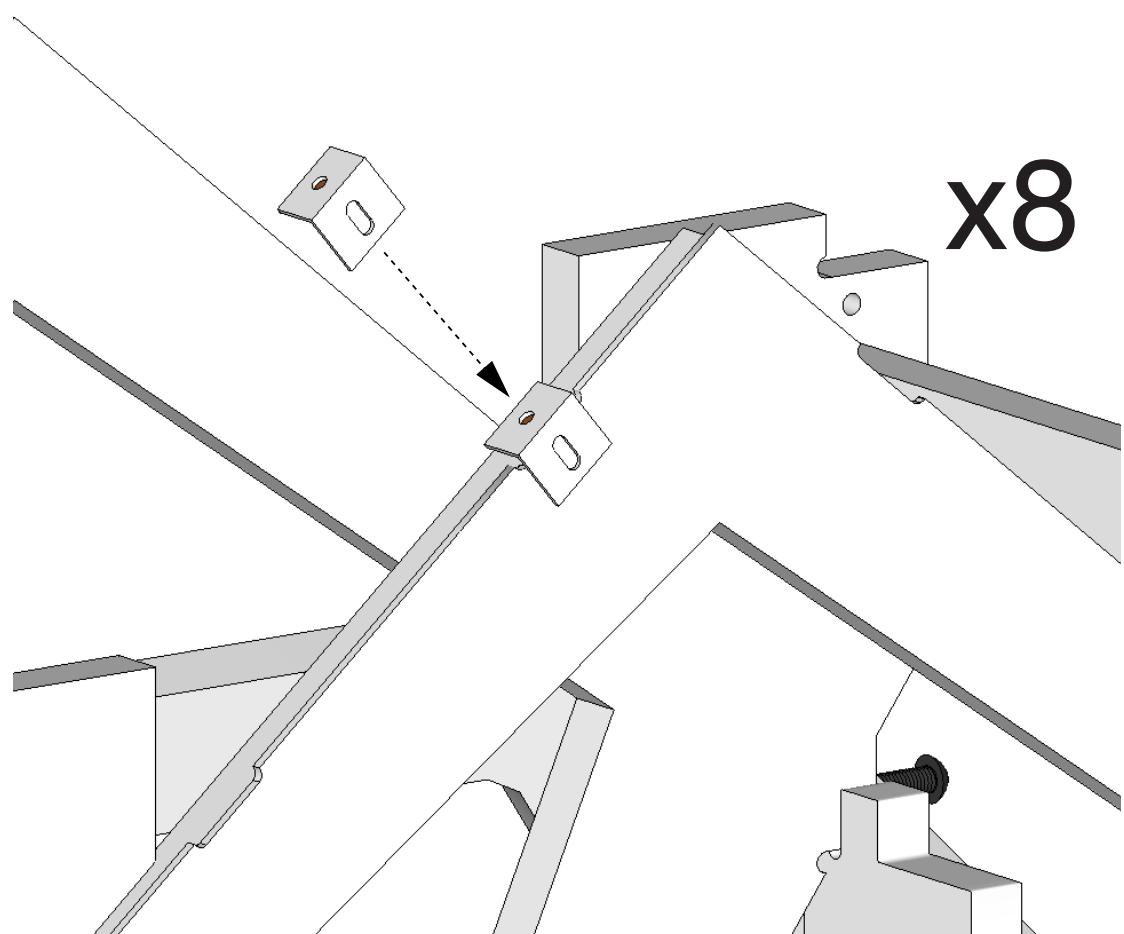
Install the imaging module upside-down on the base.
This is a temporary setup to prepare for glass installation.
Make sure the face plate with the ears goes to the front.

26.



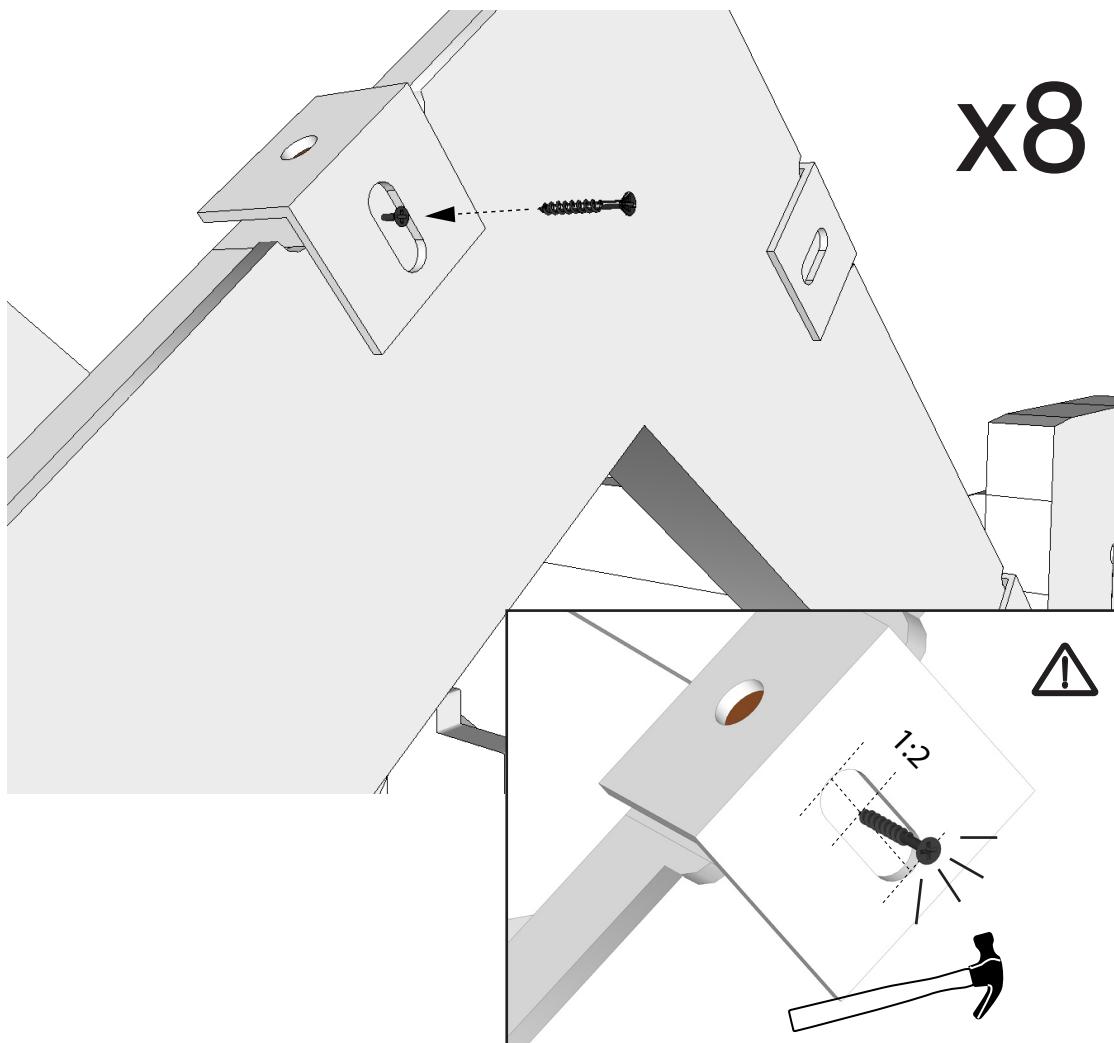
x8

27.



28.

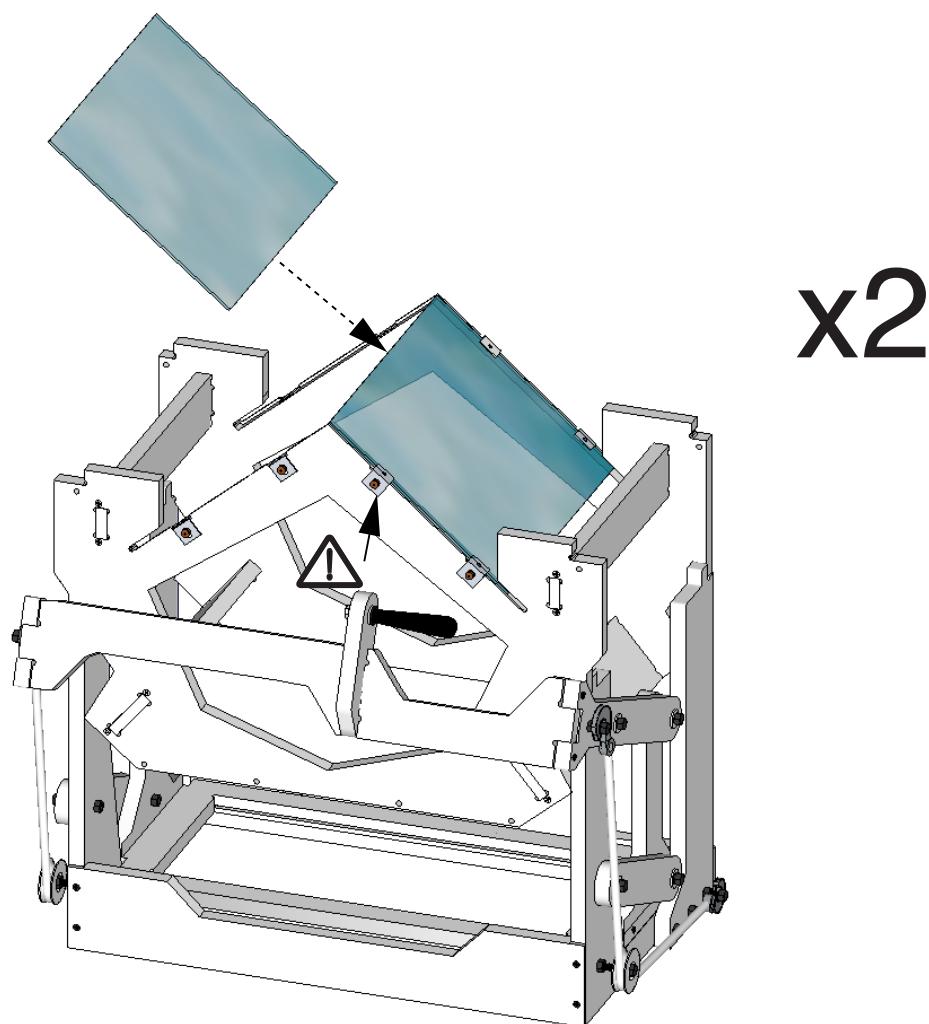
8x  3/4"



Take a screw and place its point where you want to drill: centered, and at about one third the distance along the slot. Hit the screw on the head once or twice with a hammer to make an indented mark in the wood. Now your drill bit will not wander from that location.

Drill a 1/8" pilot hole, and install a screw with pads. No need to tighten, since the brackets need to be able to move for the next step.

29.



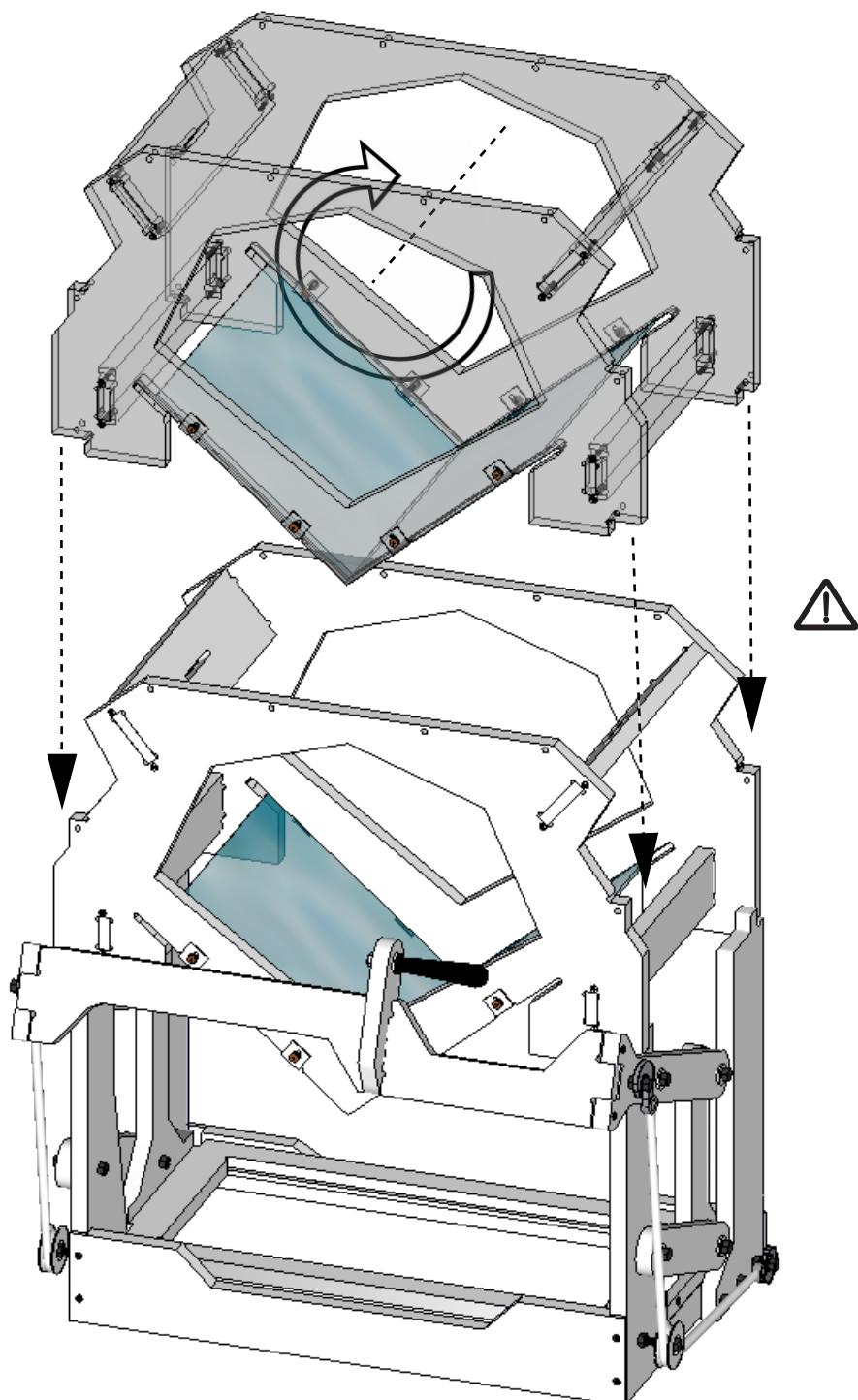
Push down on the L brackets and tighten the screws to keep the glass in place.

2x



11" x 14" glass, 3 mm or 1/8" thick
(not included in the package)

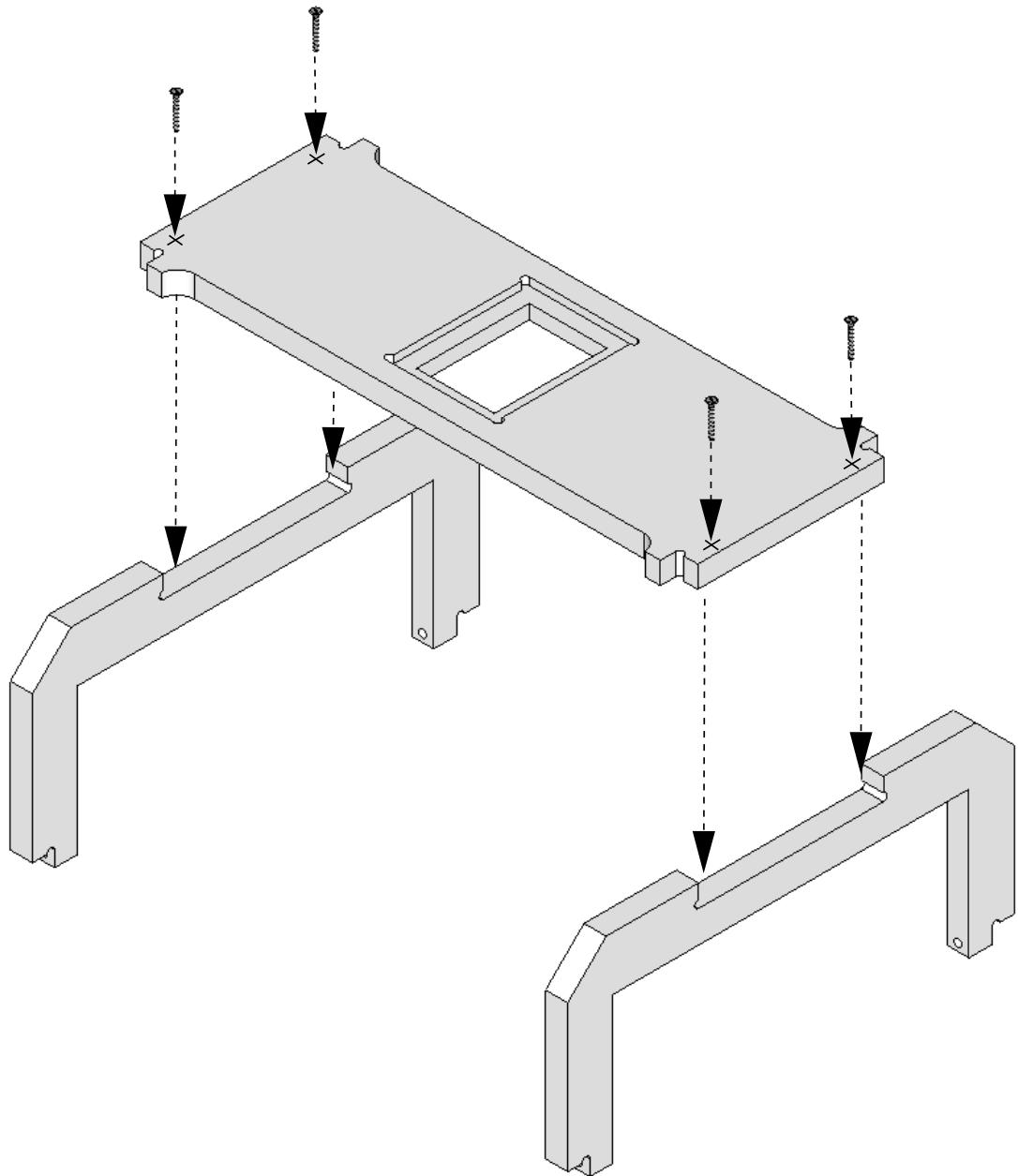
30.



After the glasses are in place the whole Platen need to be lifted- turned and be put in place.
Make sure the face plate with the ears goes to the front.

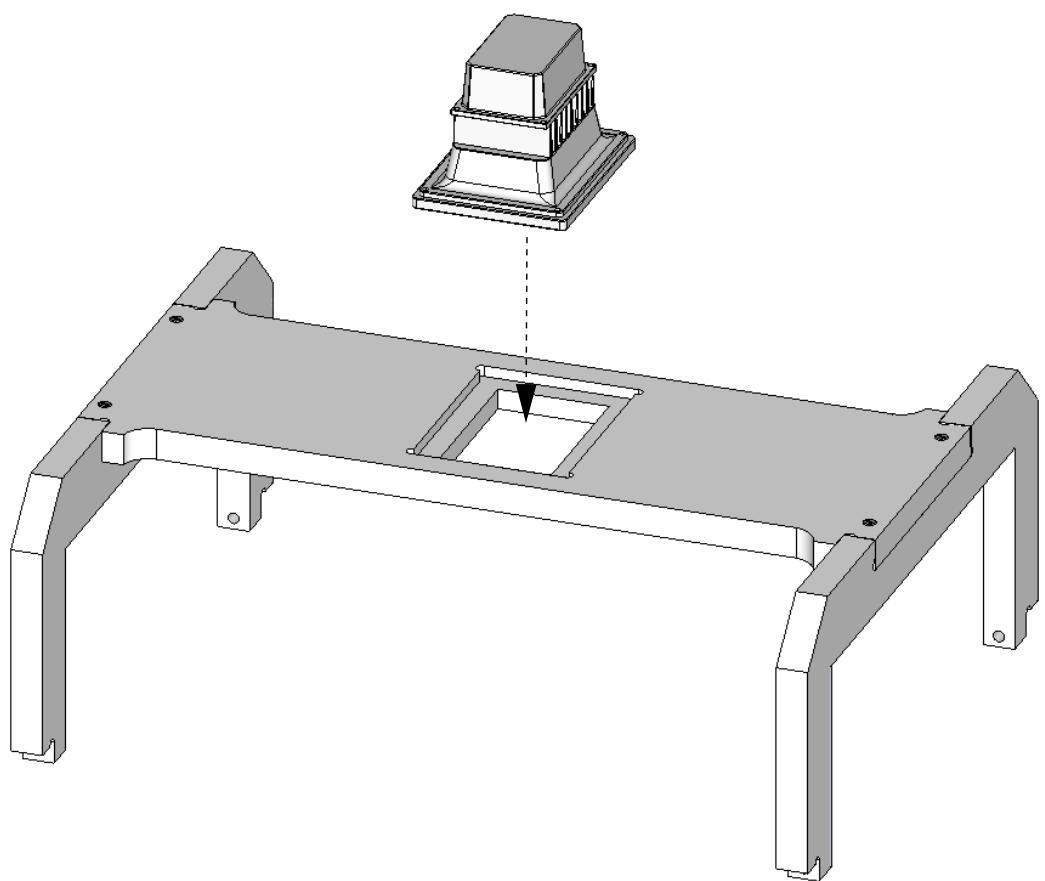
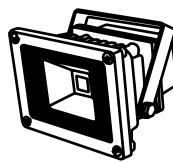
31.

4x  (1 5/8")

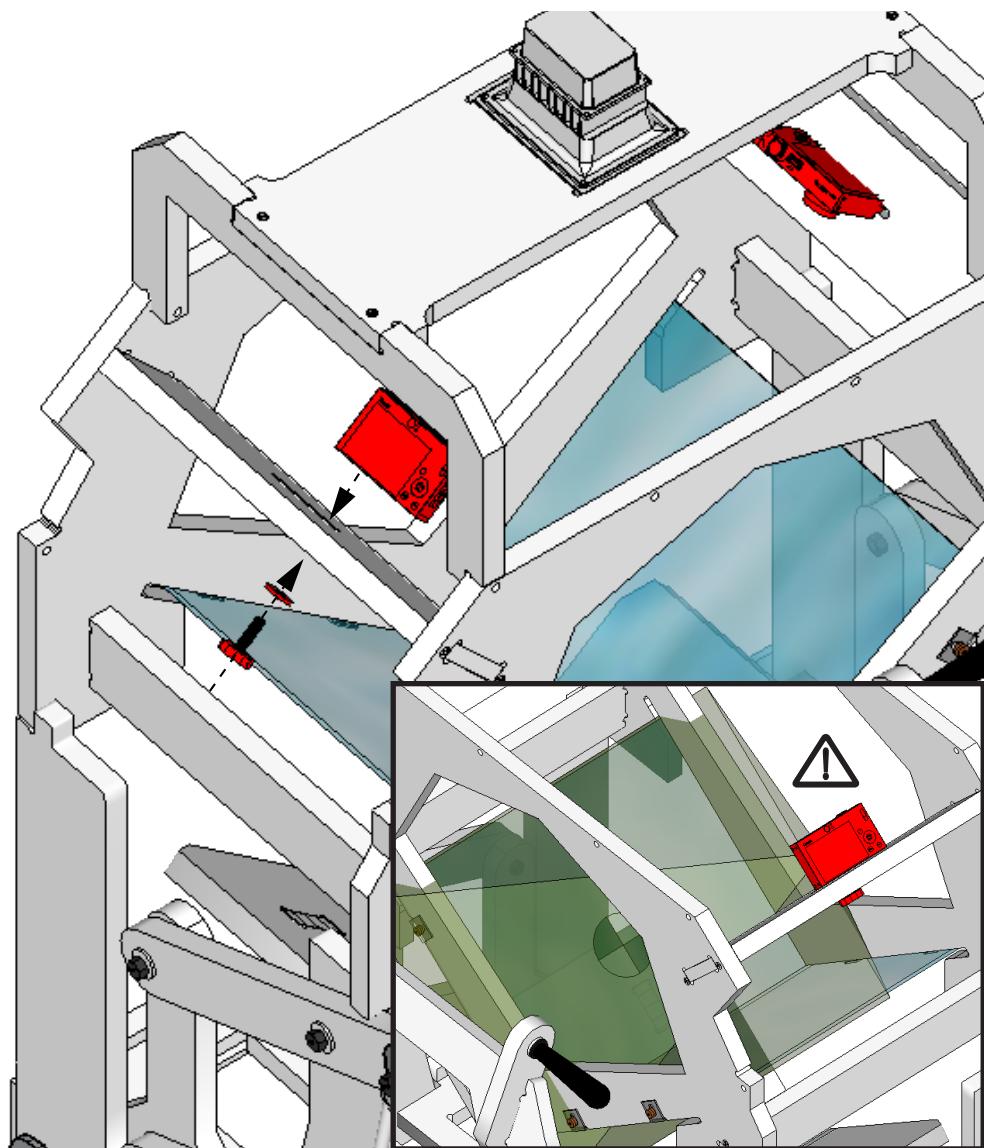
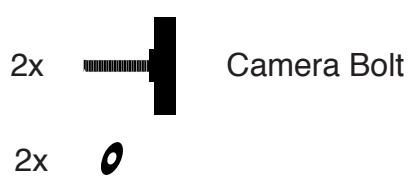


32.

1x



33.



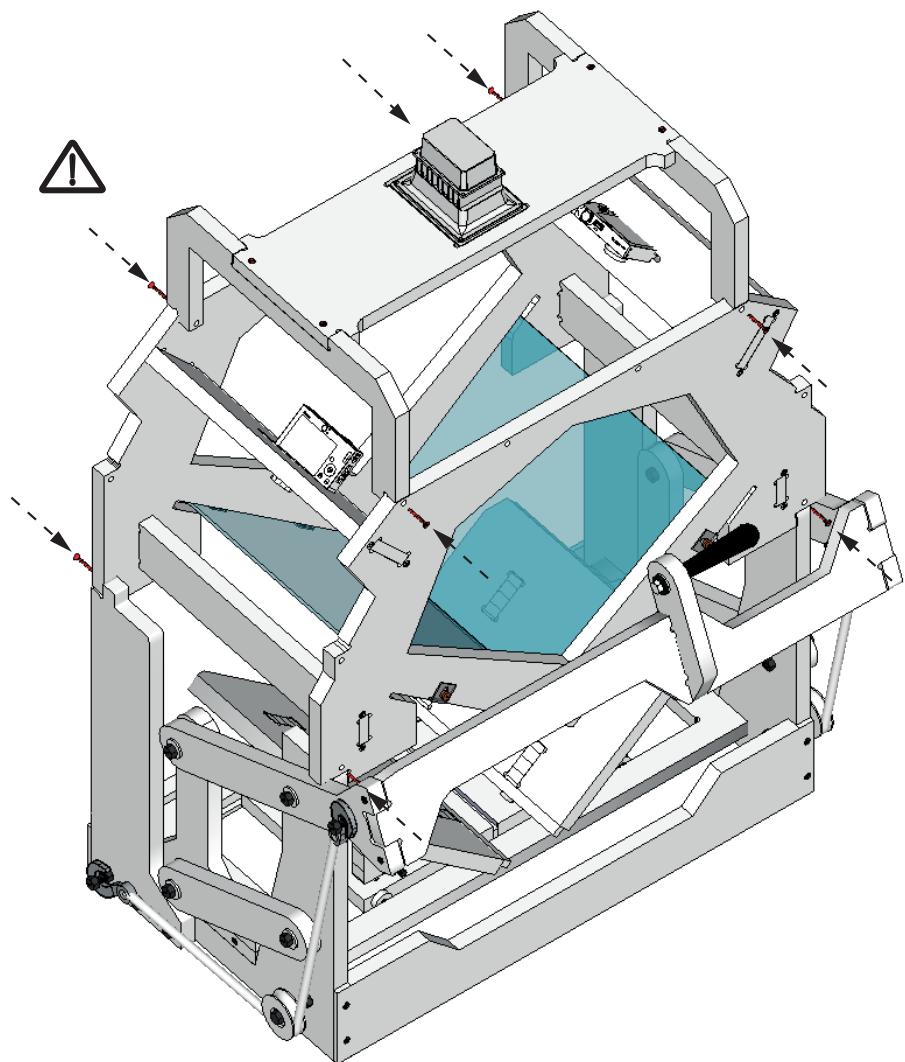
Pay attention to alingment between lenses and the center of the images



2x Digital compact Camera (not included in the package)
Please see the DIY Book Scanner forums for current recommendations.

34.

8x  (1 5/8")



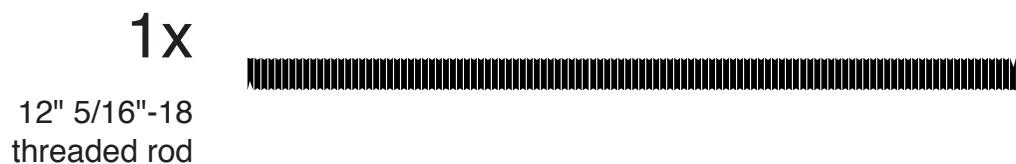
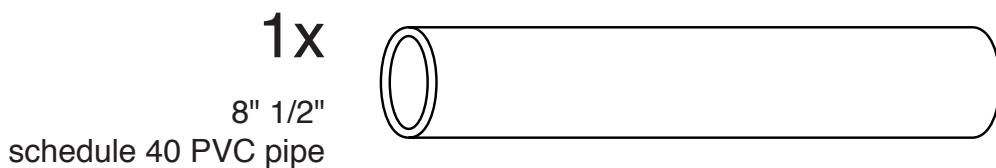
Improve the structure stability with screws in the joints.

Addendum

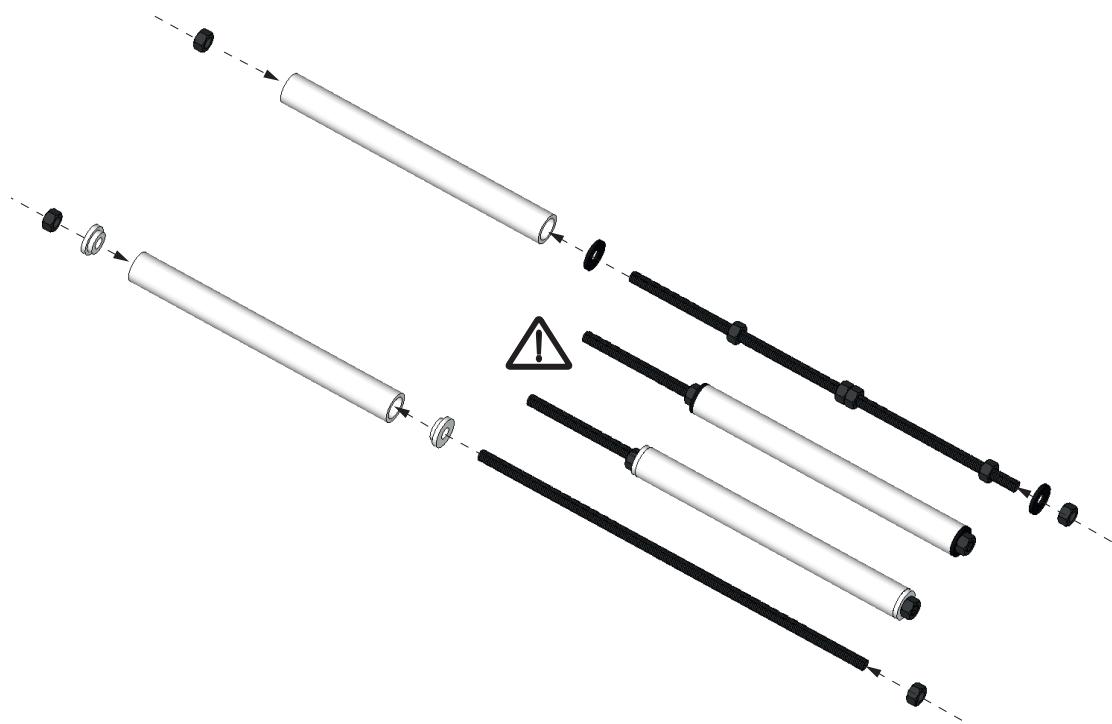
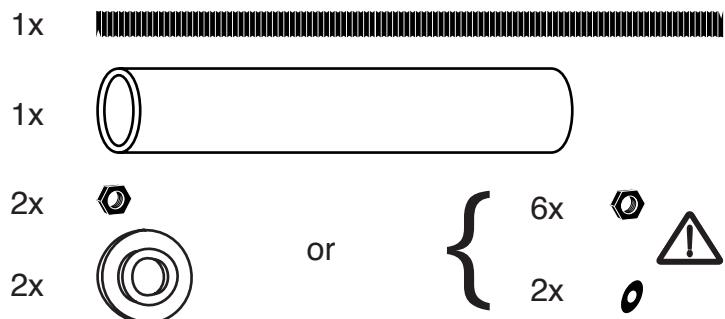
It is possible you have purchased a product that has already been updated to the specifications explained in this manual, or update an earlier version of DIY Book Scanner you have on hand to current version.

All the hardware you need to purchase or improve your Scanner are discussed in the forums of DIY Book Scanner. Cameras for different applications, triggers for the cameras, types of glasses, accuracy, image processing, OCR, tagging files, bookmarks and many other fine details are constantly being discussed through collaborative network of users Please see the DIY Book Scanner forums for more information
<http://www.diybookscanner.org>.

Alternative hardware supplied in earlier versions:



Assembling instructions for alternative handle



Two options for assembling the handle.

Assembling instructions for alternative handle

1x 

2x 

