To make your life easier, we provide a list of tools needed:

**Drill**
- 1/8" drill bit
- 3 mm drill bit

**Hammer**
- 3/8" countersink bit
- 10 mm countersink bit

**Phillips #2 screwdriver**
Kit contents: wooden parts

1x
Front

1x
Rear

2x
Large brace

2x
Small brace

2x
Large support

2x
Small support
Kit contents: wooden parts

- 1x Handle arm
- 1x LED light plate
- 2x LED light plate support
- 2x Large lever
- 2x Small lever
- 1x Small handle support
Kit contents: wooden parts
Kit contents: wooden parts

1x Front plate

1x Rear plate
Kit contents: hardware

14x
2" 5/16"-18 bolt

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

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

32x
5/16"-18 hex nut

36x
5/16" SAE washer

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

4x
#6 1" wood screw

8x
#6 3/4" drywall screw

8x
L bracket

24x
8x22x7 bearing

2x
Wing Nuts

2x
pulley

2x
1" 1/4" camera bolt

⚠️ 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.
Kit contents: hardware

- 8x Felt Pads 1/2” x 3/4”
- 2x Felt Strips 3/4” x 8”
- 1x LED light with AC power cord
- 2x 18” bungee cord
- 2x 8” Threaded rod
- 1x Tapered Handle Smooth 5/16”-18 x 5/8” Insert 3-7/8” Handle Length
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(about three times yearly), it is important to note that this is just a guideline, and one which will quickly become outdated.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
- **1x** 2-1/2" 5/16"-18 bolt

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

Drill a 1/8" pilot hole, countersink, and install a screw. Then do the same with each subsequent screw.
The long cutout goes to the front, while the short cutout goes to the rear.
You may need a hammer to tap the bearings into place.
8.

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.
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.
You may need a hammer to tap the bearings into place.
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.
Assembling instructions: Arms

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.
Drill a 1/8" pilot hole, countersink, and install a screw. Then do the same with each subsequent screw.
The handle may be supplied in a different type. See Addedum for different alternatives.
15.

2x (2 1/2”)
4x
2x

x2
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.
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.
Assembling instructions: Arms

18. 2x x2
Assembling instructions: Cradle

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.

Make sure the tabs face the right way: outside vertically, and inside horizontally.
21.
Assembling instructions: Cradle
23.

Make sure the lip faces up.
Make sure the lip faces down. Drill, countersink, and install screws to secure large and small braces on both sides.
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.
Assembling instructions: Platen
27.
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.
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)
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"

Assembling instructions: Light
Assembling instructions: Light
Pay attention to alignment between lenses and the center of the images

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

- 1x 8" 1/2" schedule 40 PVC pipe
- 1x 12" 5/16"-18 threaded rod
- 2x Ø 0.84" Pipe End Cap
Two options for assembling the handle.
Assembling instructions for alternative handle

1x

2x