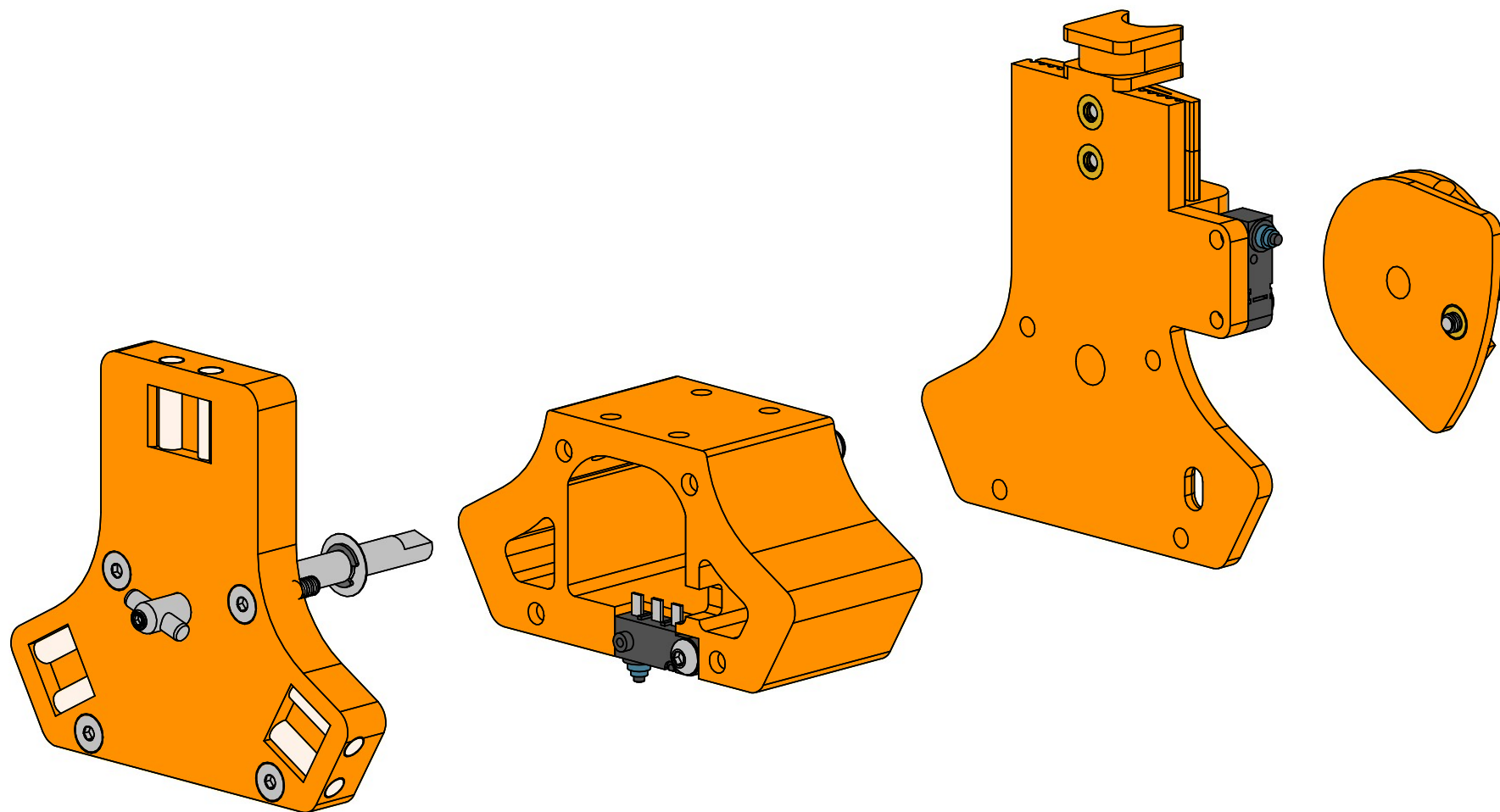


2

1

B

B



A

A

Toolchanger Carriage Assembly



Created by:
Joshua Vasquez

last edited:
1/20/2020

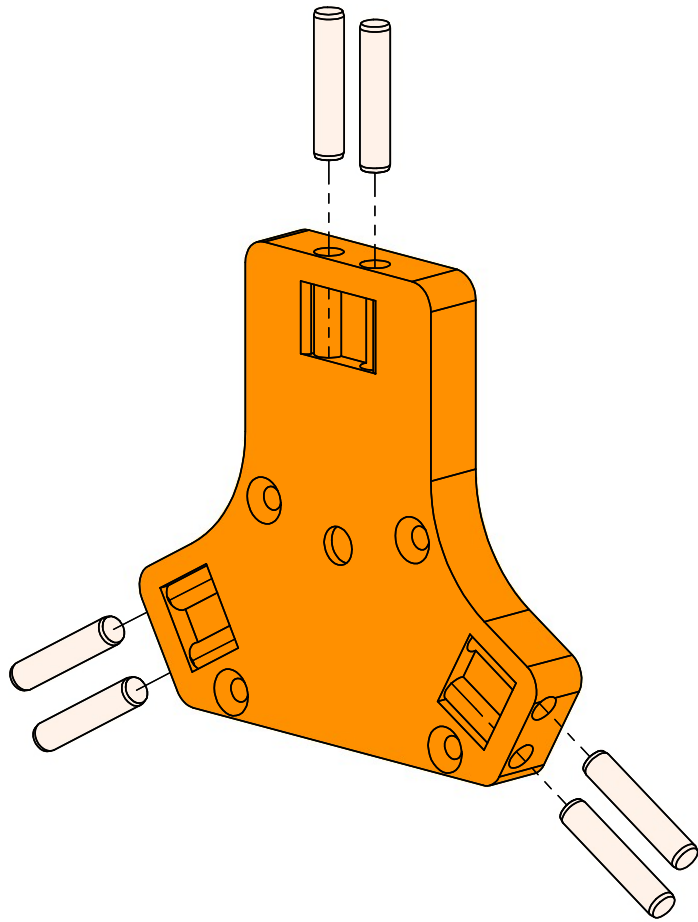
SCALE: 1:1

SHEET 1 OF 7

2

1

B



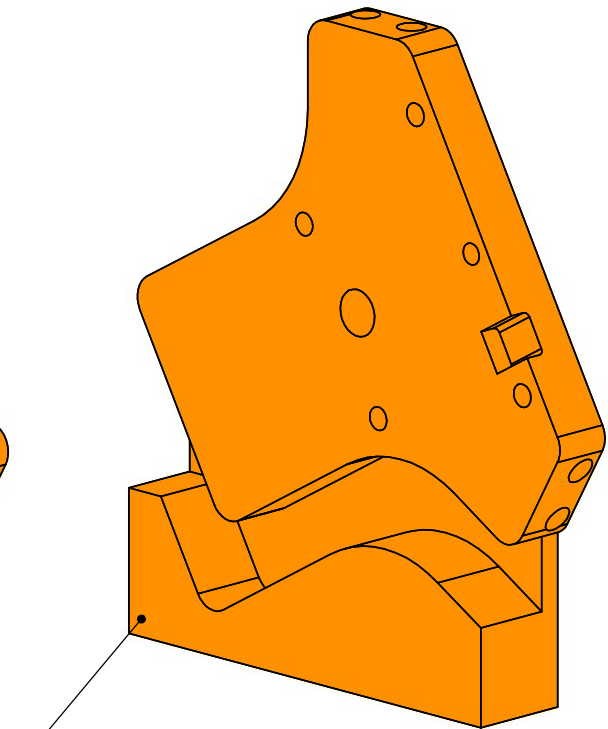
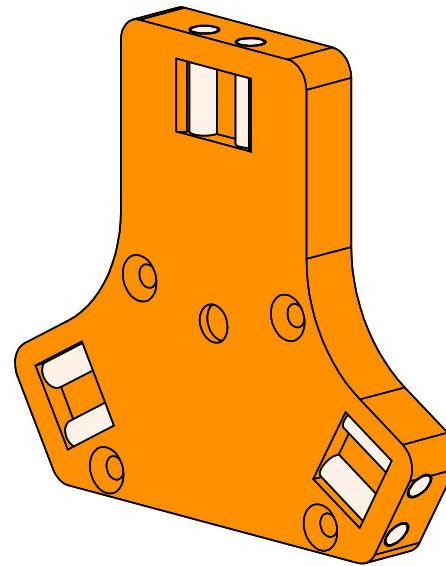
Press-fit each dowel pin into each socket until it is flush with the surface.

A

ITEM NO.	DESCRIPTION	QTY.
1	Carriage Coupler Plate	1
2	M4 Dowel Pin, 20mm long	6
3	Pin Insertion Fixture	1

2

1



Use the printed fixture to orient off-angle pins such that they are aligned vertically with the arbor press.

B

A

Coupling Plate Assembly



Created by:
Joshua Vasquez

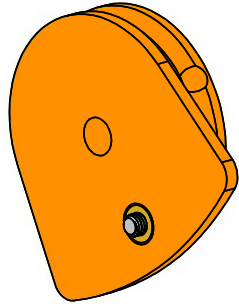
last edited:
1/20/2020

SCALE: 1:1

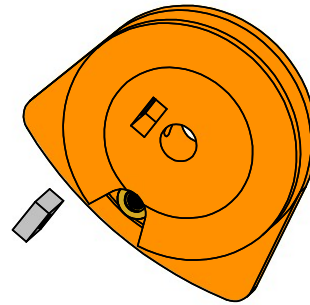
SHEET 2 OF 7

1

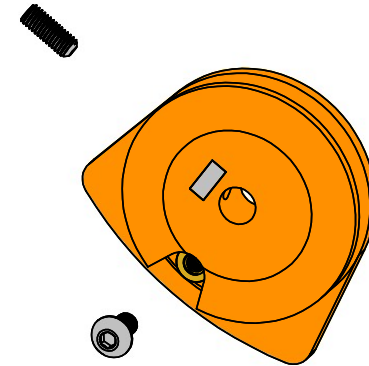
B



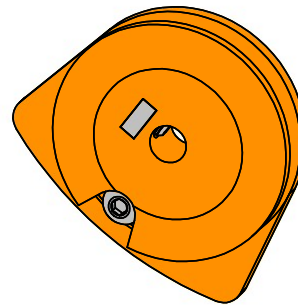
Step 1: Install the heat-set insert with the plate-press technique.



Step 2: Press-fit the square nut such that it is flush with the top face.



Step 3: Loosely install both screw components such that they engage the threads. The set screw should not peek out into the center hole. The buttonhead screw will be tightened later.



Finished Assembly

B

A

ITEM NO.	DESCRIPTION	QTY.
1	Tool Lock Pulley	1
2	M3 Square Nut	1
3	M3 Buttonhead Screw, 6mm long	1
4	M3 Tapered Heat Set Insert	1
5	M3 Set Screw, 8mm long	1

Pulley Assembly



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Joshua Vasquez

last edited:
1/20/2020

SCALE: 1:1

SHEET 3 OF 7

2

1

B

A

2

1

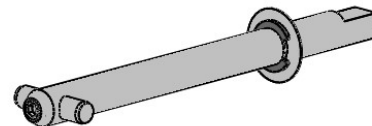
Center the dowel pin before
tightening the set screw.

Install E-clip onto the shaft groove.

Slide shim onto the back of the E-Clip.

B

A



ITEM NO.	DESCRIPTION	QTY.
1	Tool Lock Shaft	1
2	M3 12mm dowel pin	1
3	M3 Set Screw, 3mm long	1
4	E-Clip	1
5	M5 Shim, 0.2mm thick	1

Twist Lock Assembly



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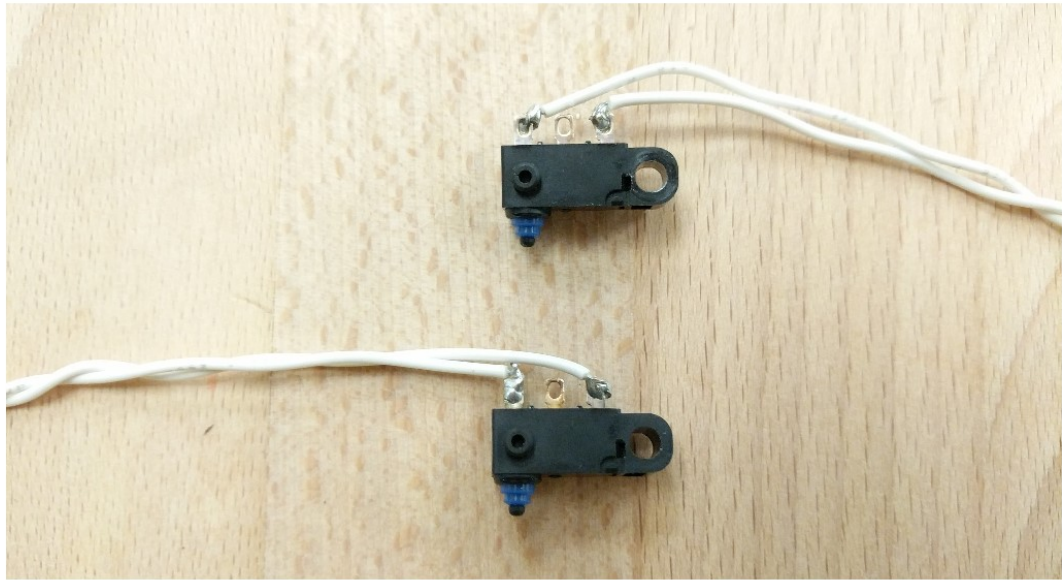
last edited:
1/20/2020

SCALE: 1:1

SHEET 4 OF 7


2

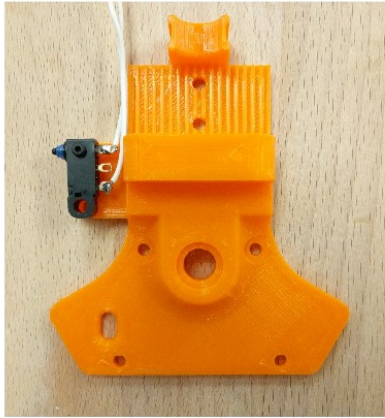
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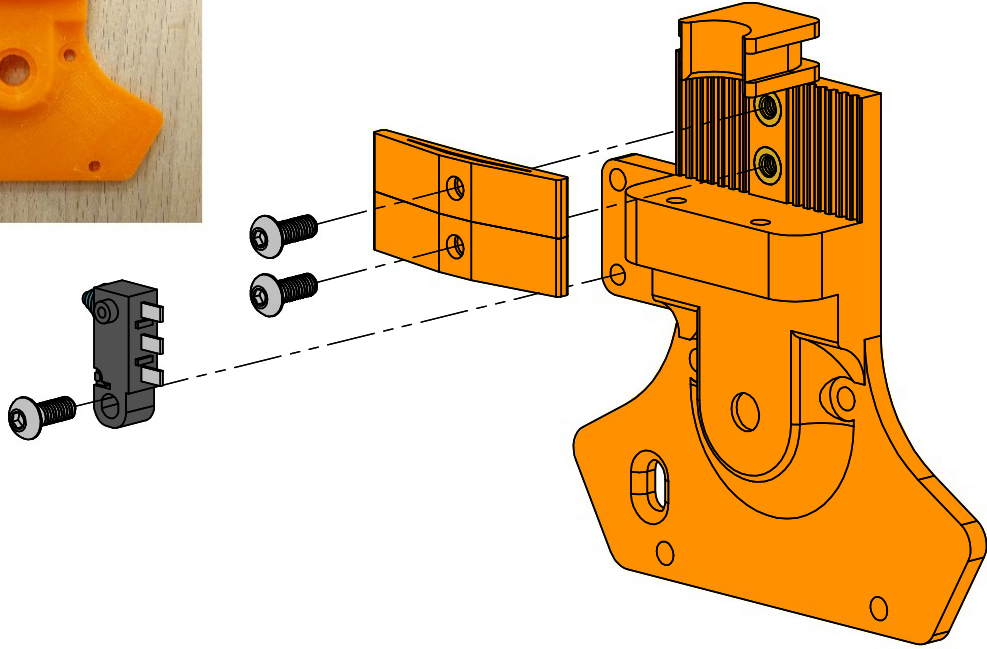
(Optional: twist the wires into two pairs for easier cable management.)

Solder two wires to the outer ends of each limit switch with the wires bent in the directions shown above. Note that the direction is different for each limit switch!

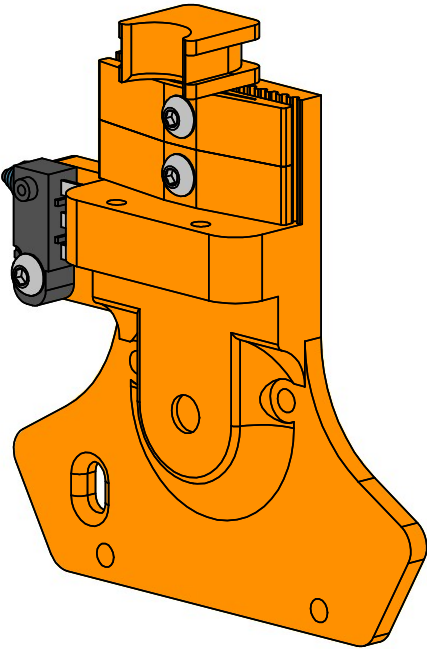
Wiring Installation		
	Created by: Joshua Vasquez	last edited: 1/20/2020
	SCALE: 1:1	SHEET 5 OF 7



Select the limit switch with wires bent towards the button.



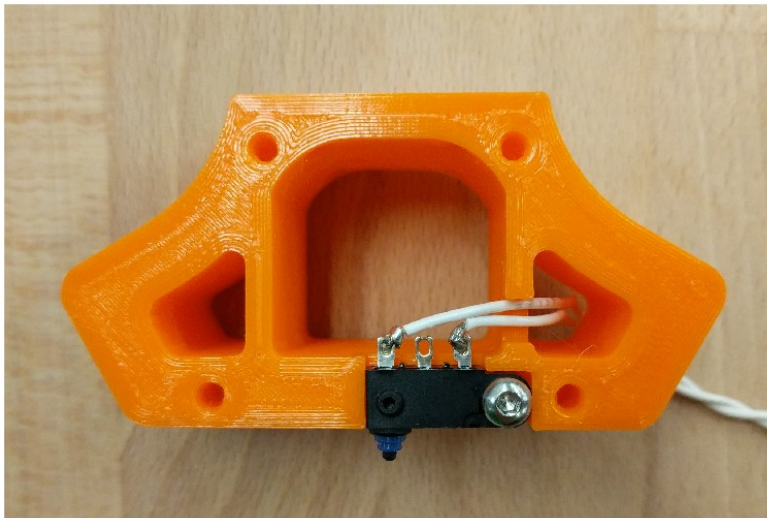
Exploded View



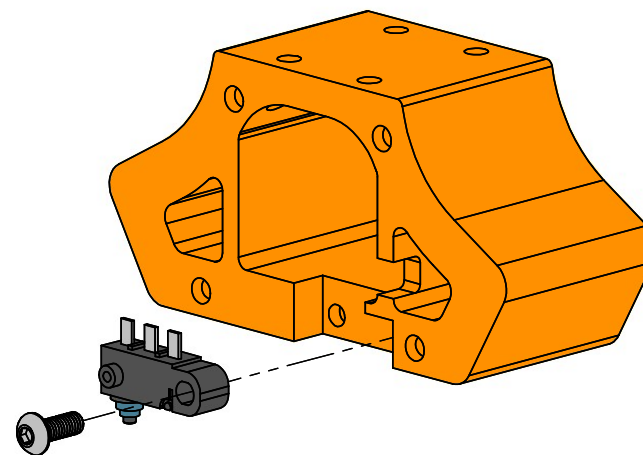
Assembled View

ITEM NO.	DESCRIPTION	QTY.
1	Belt Clasp	2
2	Dust-Proof Limit Switch	1
3	M3 Buttonhead Screw, 8mm long	3
4	Carriage Back Plate with Inserts	1

Carriage Back Plate Assembly		
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	Joshua Vasquez	1/20/2020
SCALE: 1:1		SHEET 6 OF 7




Select the limit switch with wires bent away from the button. Route the wires as shown above.



Set all completed subassemblies aside for installation on the CoreXY frame at a later step.

ITEM NO.	DESCRIPTION	QTY.
1	Dust-Proof Limit Switch with wires installed	1
2	M3 Buttonhead Screw, 8mm long	1
3	Carriage Center Plate	1

Carriage Center Assembly		
	Created by: Joshua Vasquez	last edited: 1/20/2020
	SCALE: 1:1	SHEET 7 OF 7