

### 041 Aluminum Crossbar Assembly



Created by:  
Joshua Vasquez

last edited:  
6/7/2020

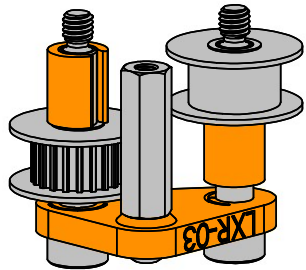
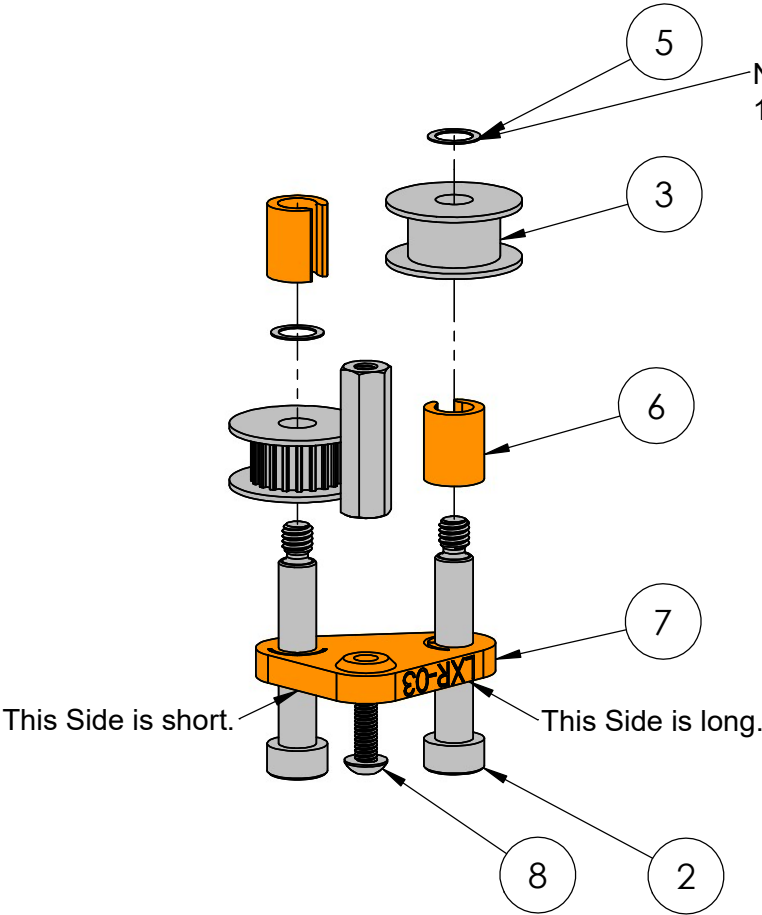
SCALE: 1:2

SHEET 1 OF 8

**Note:** This assembly step is for the **generic** brand pulleys only. If you are using genuine **Gates** brand pulleys, skip this page and see the next page.

B

B

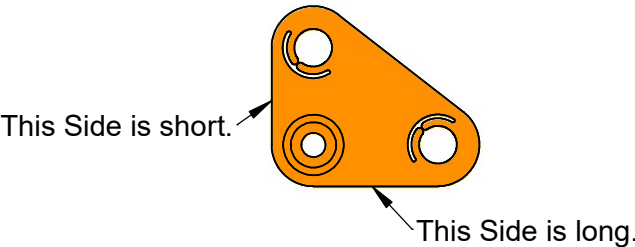


ITEM NO.	DESCRIPTION	QTY
1	M3 Standoff, 20mm long, 6mm wide	1
2	M4 Shoulder Screw, 25mm long	2
3	20T toothless idler, 5mm bore	1
4	20T Idler pulley, 2GT, 5mm bore	1
5	M5 Shim, 0.2mm thick, 7mm OD	2
6	Printed Pulley Spacer	2
7	Left Crossbar Pulley Reinforcement Plate	1
8	M3 Buttonhead Screw, 8mm long	1

A

A

Note the orientation of the Reinforcement Plate



Left Crossbar Generic Pulley Assembly

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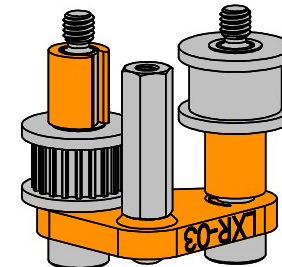
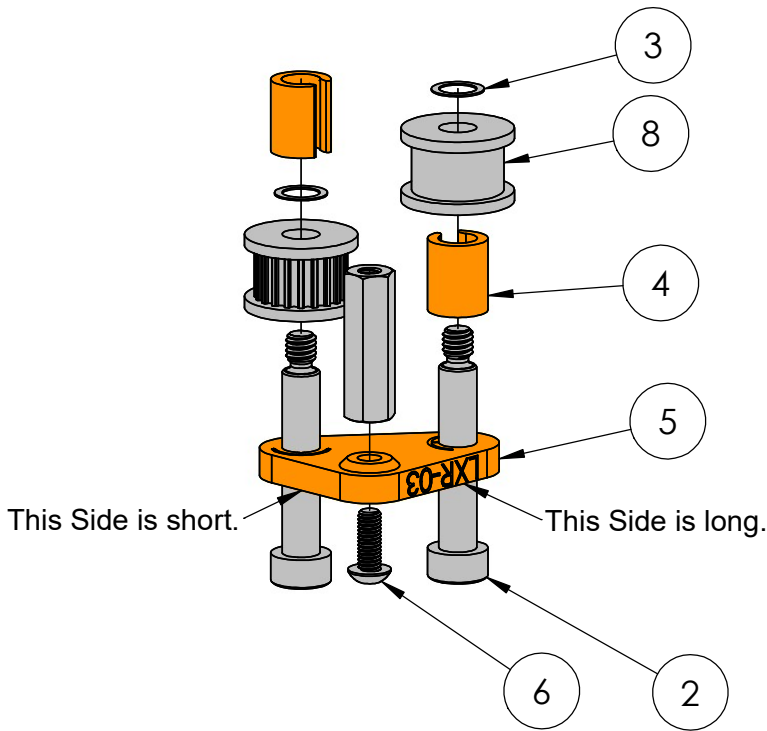
SCALE: 1:1

SHEET 2 OF 8

**Note:** This assembly step is for the genuine **Gates** brand pulleys only. If you are using **generic** brand pulleys, skip this page.

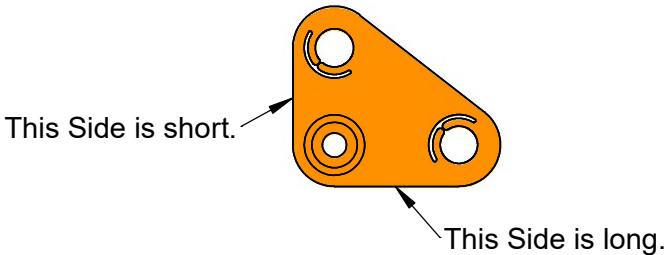
B

B



ITEM NO.	DESCRIPTION	QTY.
1	M3 Standoff, 20mm long, 6mm wide	1
2	M4 Shoulder Screw, 25mm long	2
3	M5 Shim, 0.2mm thick, 7mm OD	2
4	Printed Pulley Spacer	2
5	Left Crossbar Pulley Reinforcement Plate	1
6	M3 Buttonhead Screw, 8mm long	1
7	20T Idler pulley, 2GT, 5mm bore	1
8	20T Toothless Idler pulley, 2GT, 5mm bore	1

Note the orientation of the Reinforcement Plate



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Left Crossbar Gates Pulley Assembly

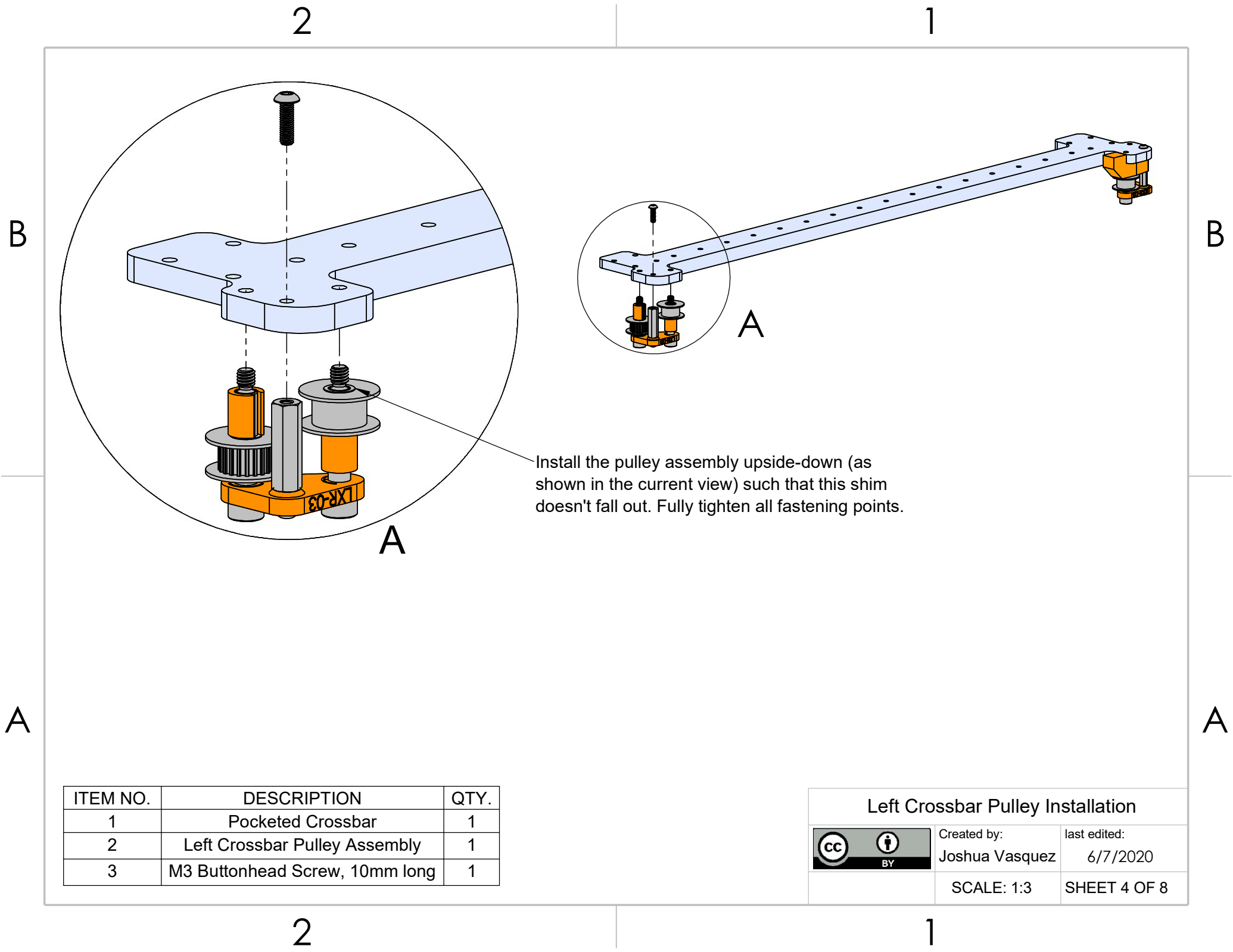


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SCALE: 1:1

SHEET 3 OF 8



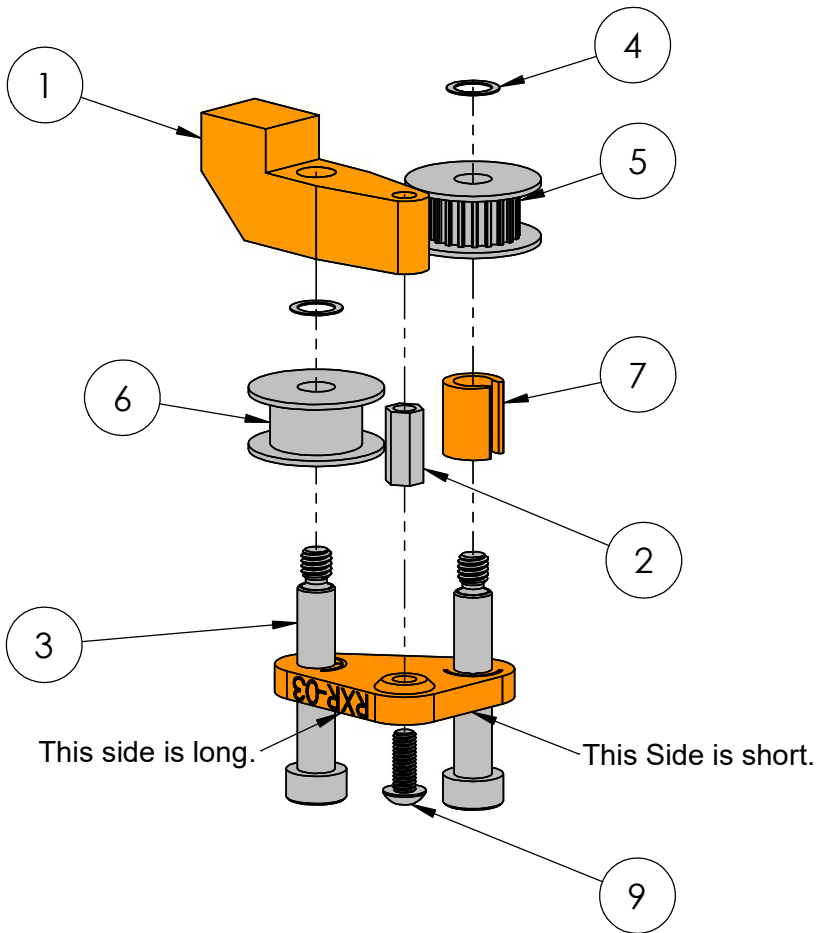
ITEM NO.	DESCRIPTION	QTY.
1	Pocketed Crossbar	1
2	Left Crossbar Pulley Assembly	1
3	M3 Buttonhead Screw, 10mm long	1

Left Crossbar Pulley Installation		
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	SCALE: 1:3	SHEET 4 OF 8

**Note:** This assembly step is for the **generic** brand pulleys only. If you are using genuine **Gates** brand pulleys, skip this page and see the next page.

B

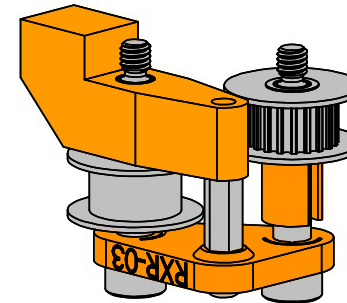
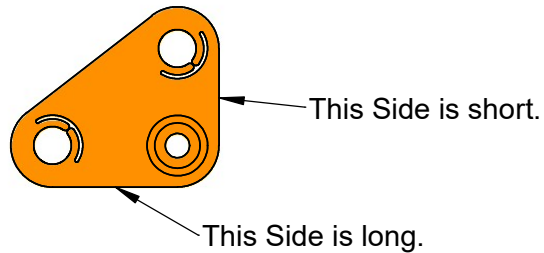
B



A

A

Note the orientation of the Reinforcement Plate



ITEM NO.	DESCRIPTION	
1	Crossbar X Limit Trigger	1
2	M3 10mm standoff, 4.5mm wide	1
3	M4 Shoulder Screw, 25mm long	2
4	M5 Shim, 0.2mm thick, 7mm OD	2
5	20T Idler pulley, 2GT, 5mm bore	1
6	20T toothless idler, 5mm bore	1
7	Printed Pulley Spacer	1
8	Right Crossbar Pulley Reinforcement Plate	1
9	M3 Buttonhead Screw, 8mm long	1

Right Crossbar Generic Pulley Assembly



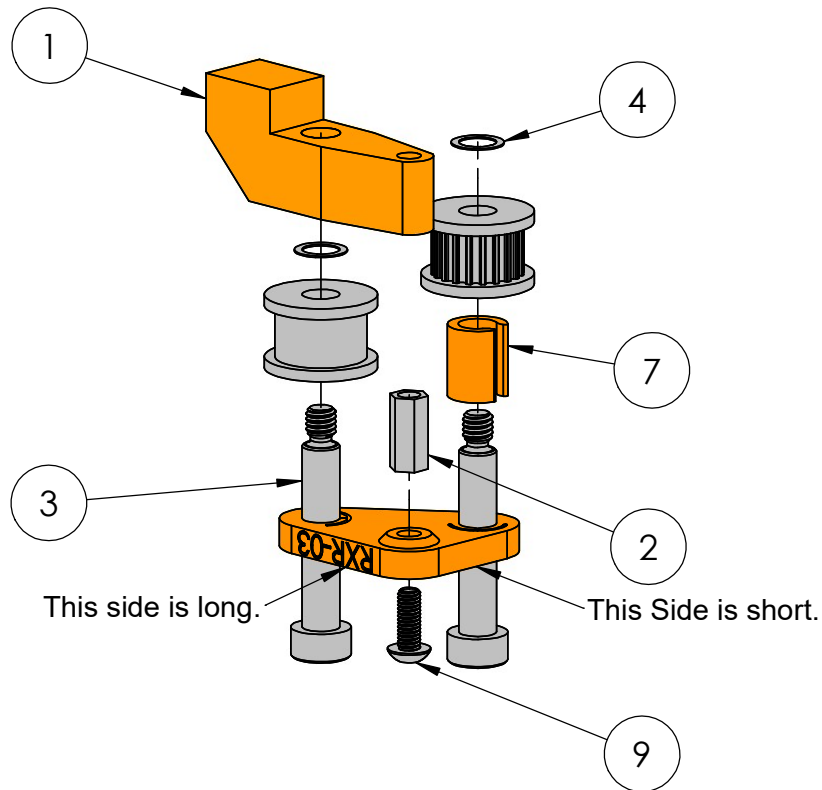
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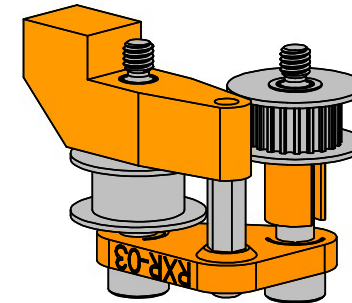
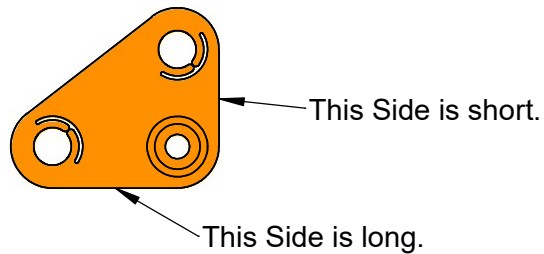
SCALE: 1:1

SHEET 5 OF 8

**Note:** This assembly step is for the genuine **Gates** brand pulleys only. If you are using **generic** brand pulleys, skip this page.



Note the orientation of the Reinforcement Plate



ITEM NO.	DESCRIPTION	
1	Crossbar X Limit Trigger	1
2	M3 10mm standoff, 4.5mm wide	1
3	M4 Shoulder Screw, 25mm long	2
4	M5 Shim, 0.2mm thick, 7mm OD	2
5	20T Idler pulley, 2GT, 5mm bore	1
6	20T toothless idler, 5mm bore	1
7	Printed Pulley Spacer	1
8	Right Crossbar Pulley Reinforcement Plate	1
9	M3 Buttonhead Screw, 8mm long	1

#### Right Crossbar Gates Pulley Assembly

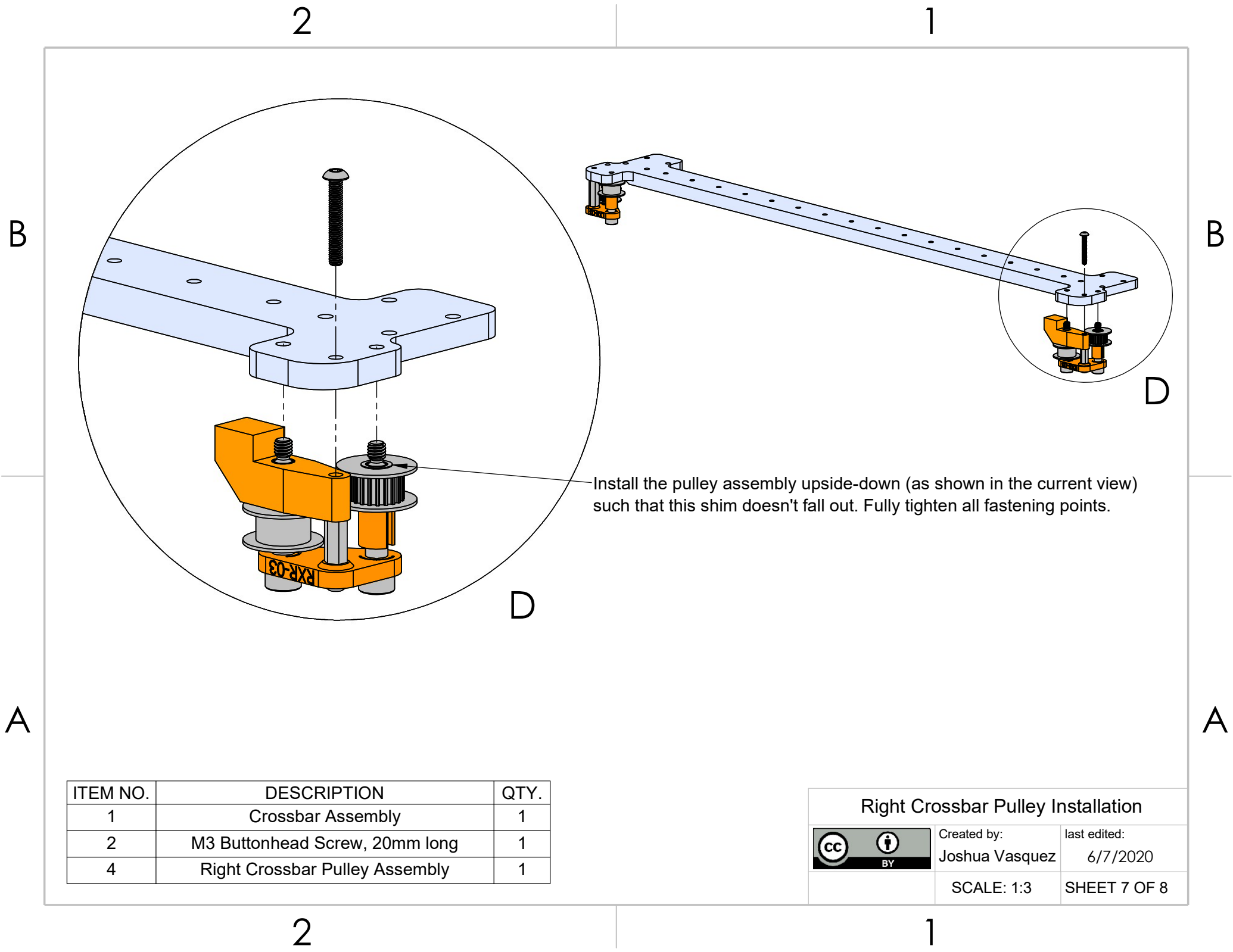


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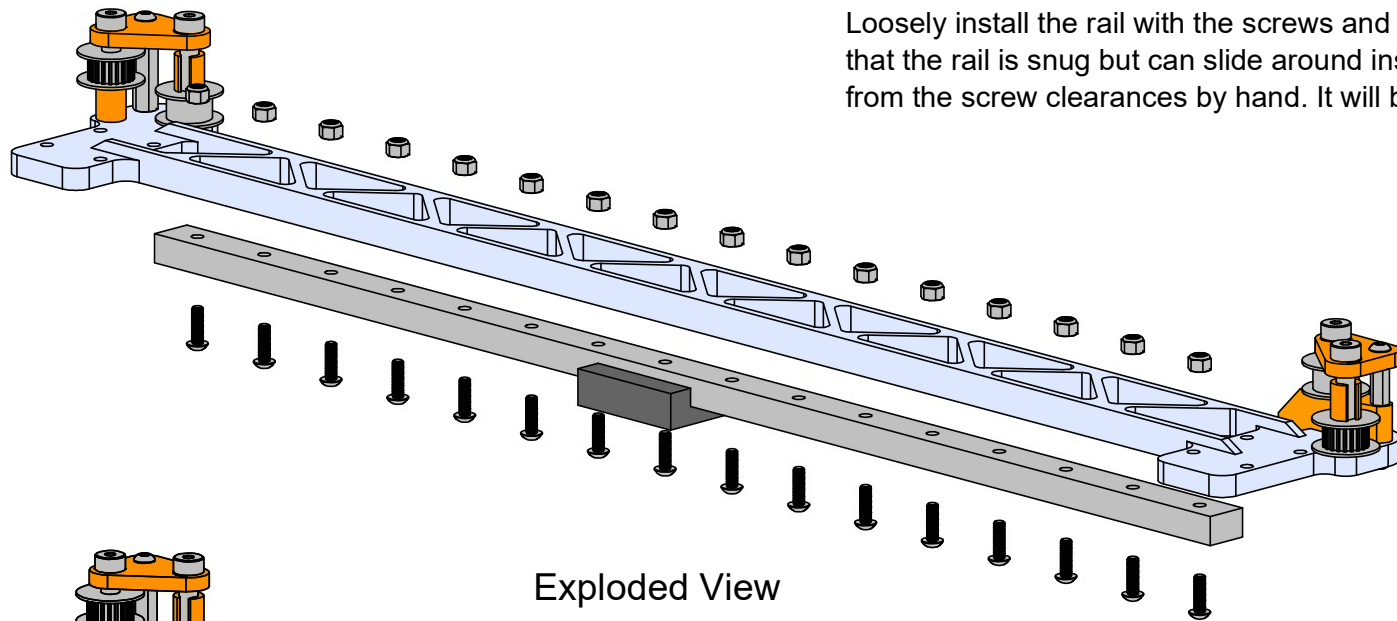
SCALE: 1:1

SHEET 6 OF 8

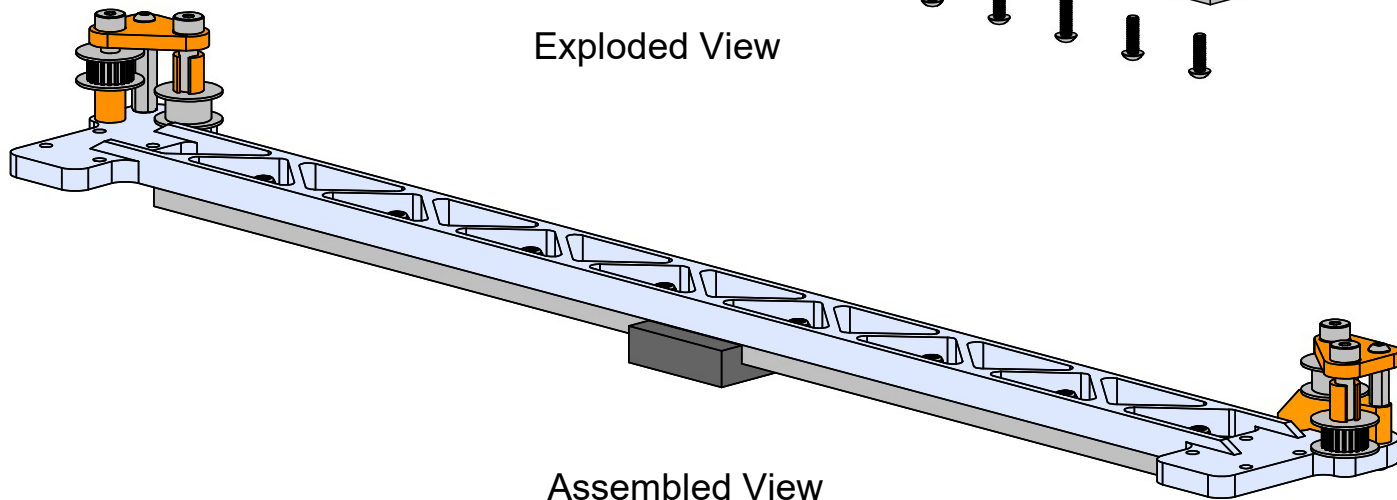


ITEM NO.	DESCRIPTION	QTY.
1	Crossbar Assembly	1
2	M3 Buttonhead Screw, 20mm long	1
4	Right Crossbar Pulley Assembly	1

Right Crossbar Pulley Installation		
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	SCALE: 1:3	SHEET 7 OF 8




Exploded View



Assembled View

Loosely install the rail with the screws and lock nuts such that the rail is snug but can slide around inside the holes from the screw clearances by hand. It will be tightened later.

ITEM NO.	DESCRIPTION	QTY.
2	Crossbar with Pulley Assemblies	1
3	395 or 400mm long MGN12 rail	1
4	MGN12C Carriage Block	1
5	M3 Buttonhead Screw, 10mm long	16
6	M3 Locknut	16

Rail Installation		
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	Joshua Vasquez	6/7/2020
	SCALE: 1:2	SHEET 8 OF 8