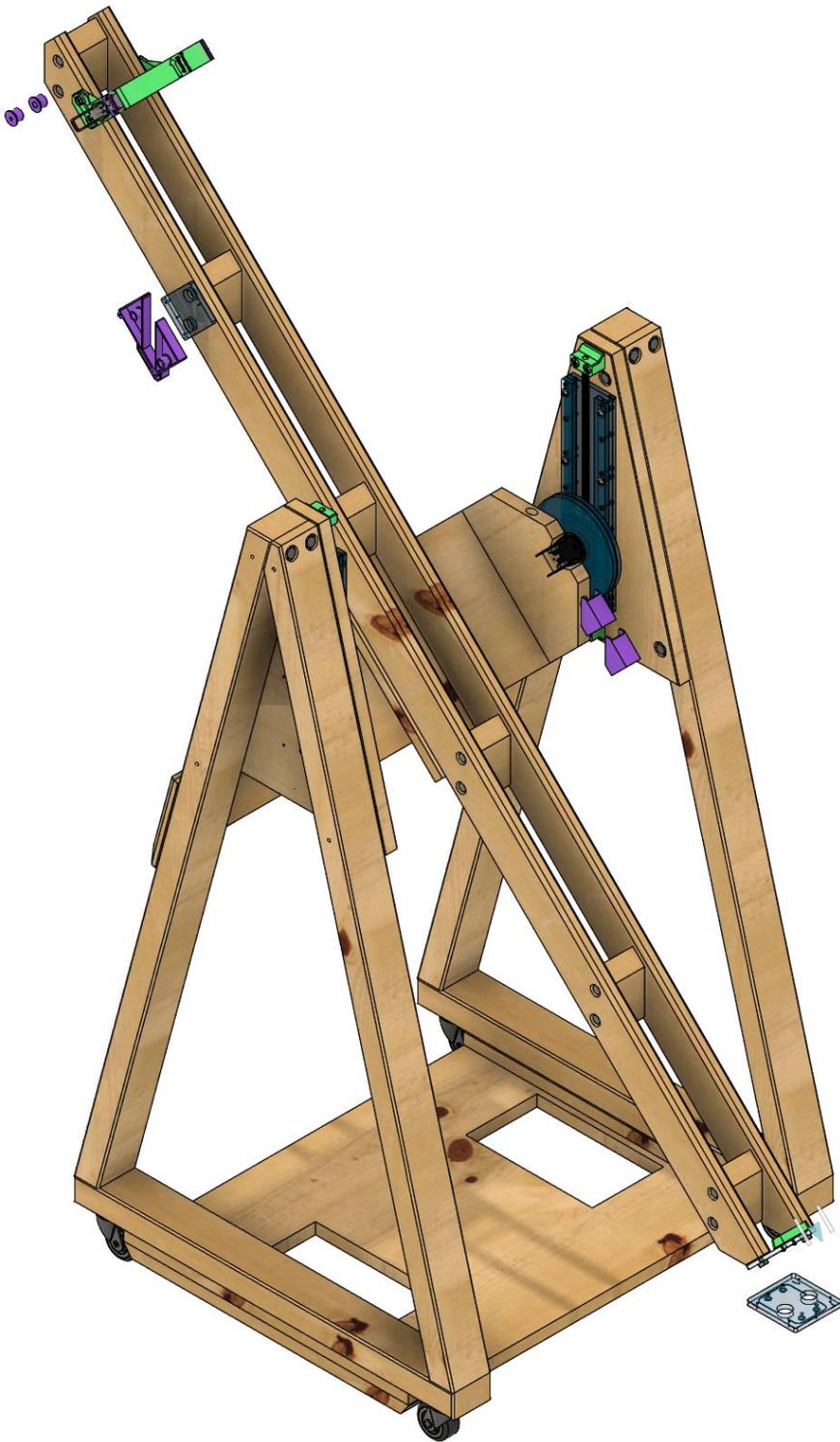
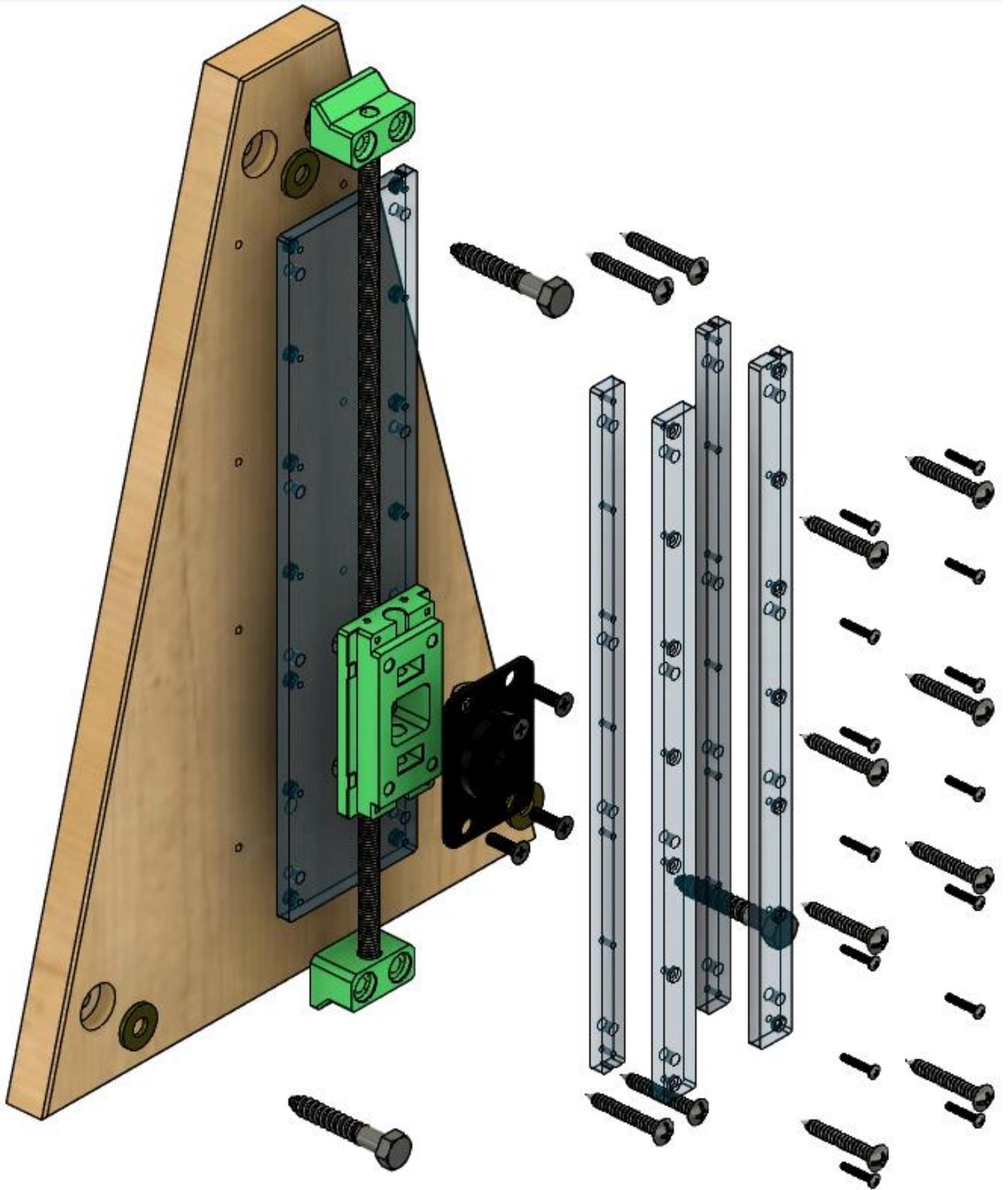


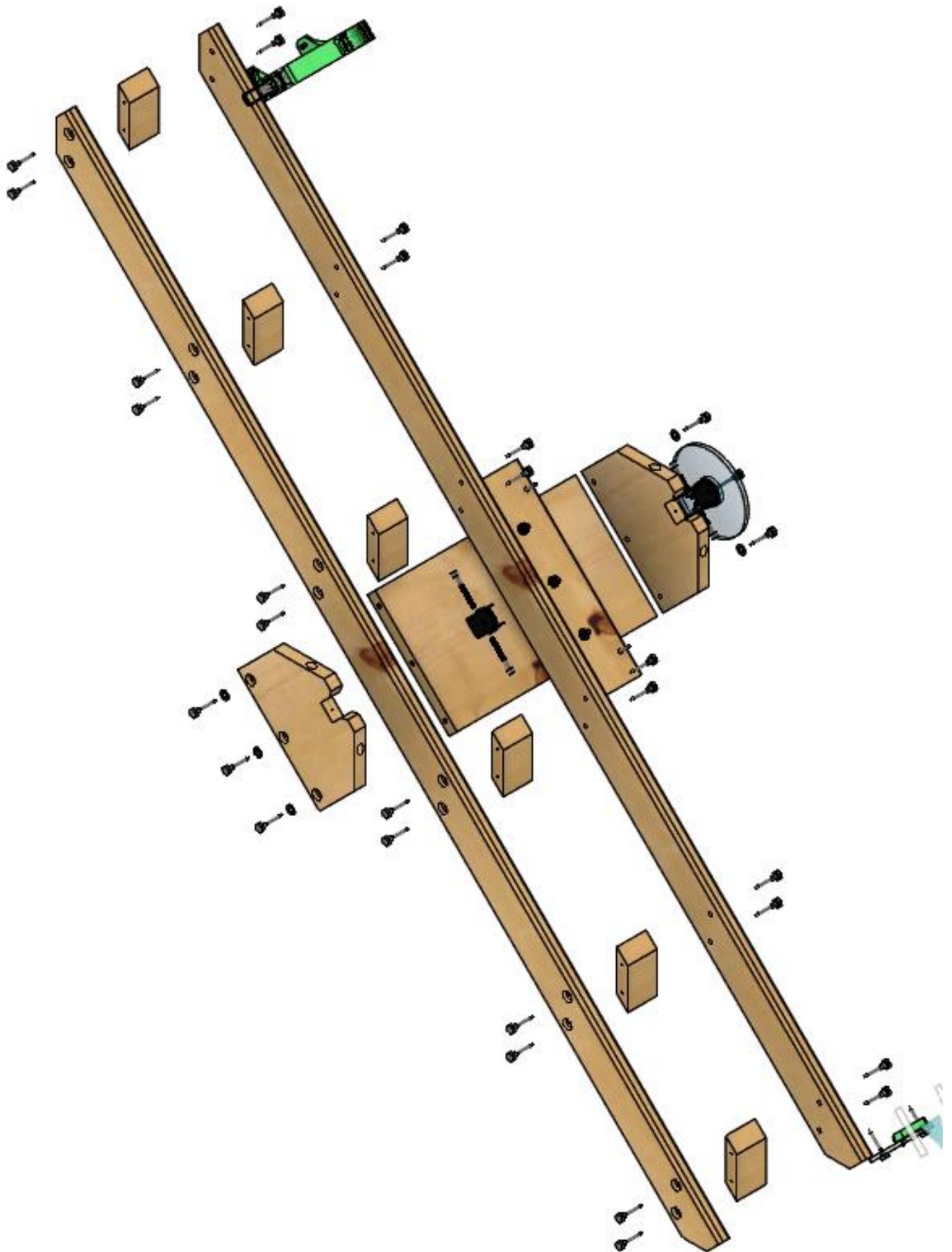
AIM9 Missile Stand



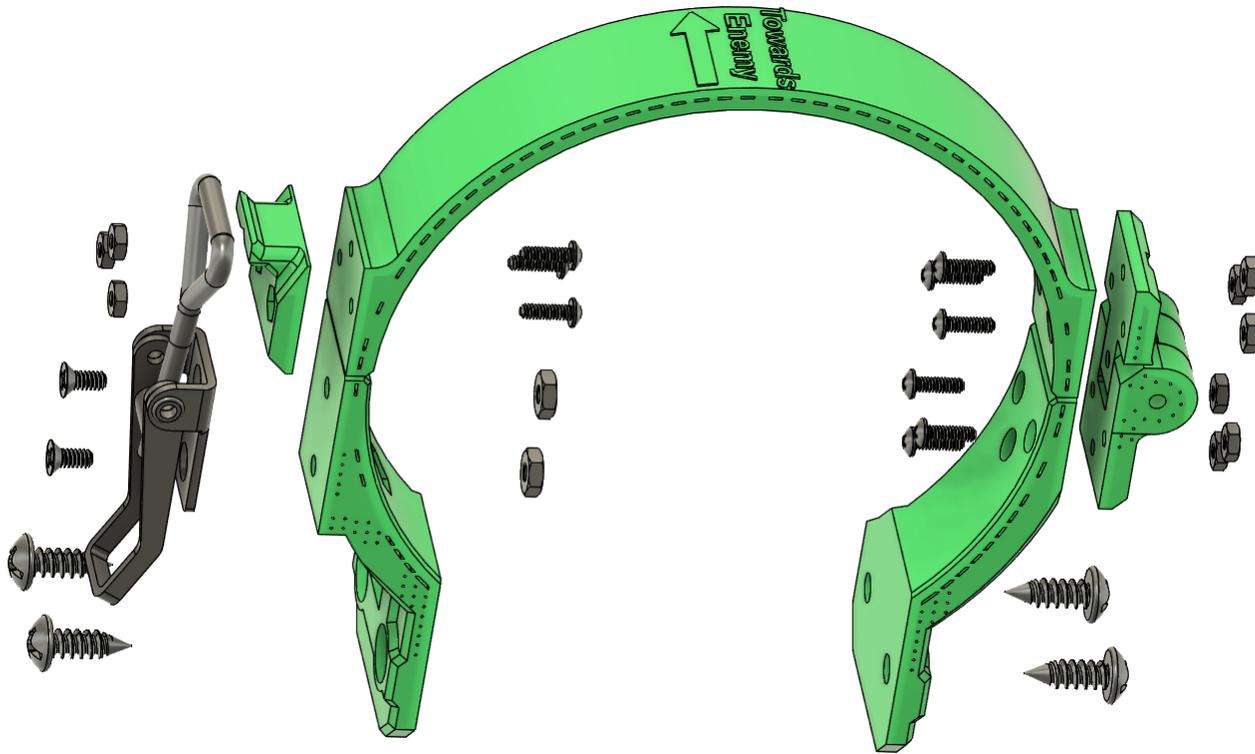
Slider Exploded View



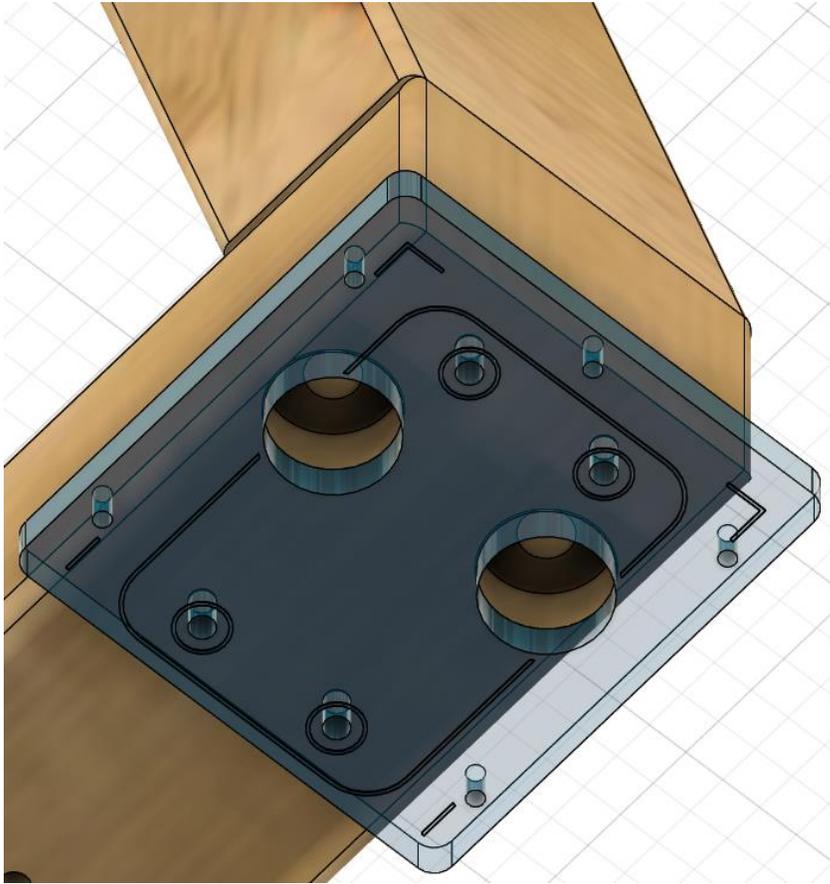
Rail Exploded View



Clamp and Wheel Mount Exploded Views



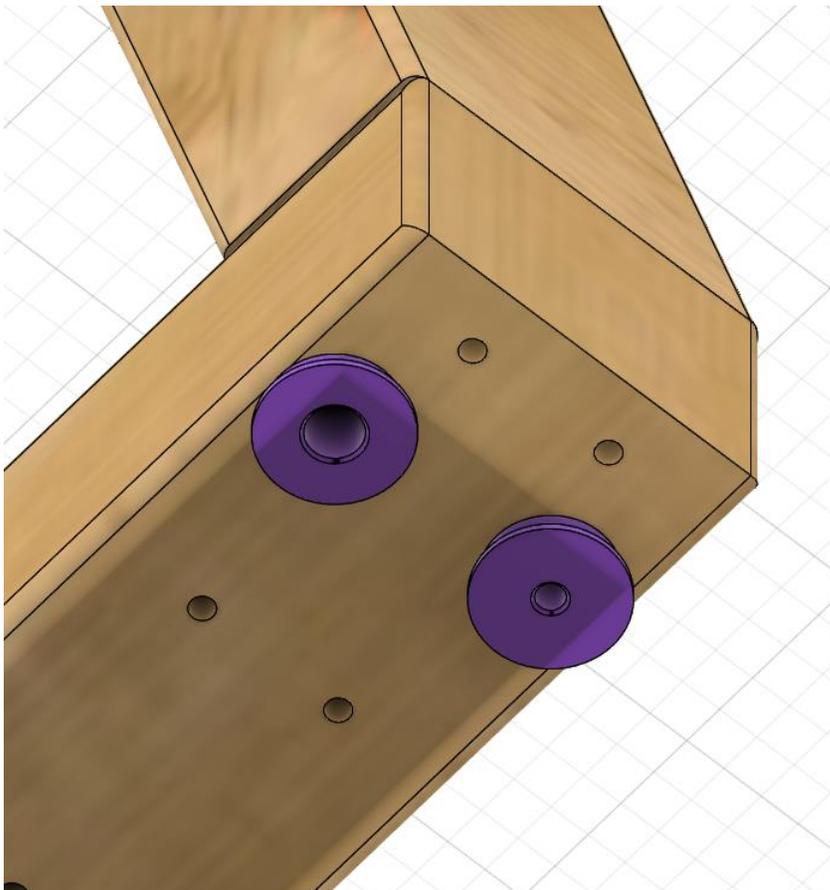
Jigs for bottom 1/4" and 5/16" screws (3D Printed and Laser Cut)



Acrylic laser cut jig guides a **3/4" Forstner bit** to drill pockets for **5/16" lag screws**. It also guides a **5/32" twist drill** to drill **pilot holes for 1/4" round head screws** for caster wheel.

1/8" pins are added to perimeter holes for registration.

Used in 4 locations.

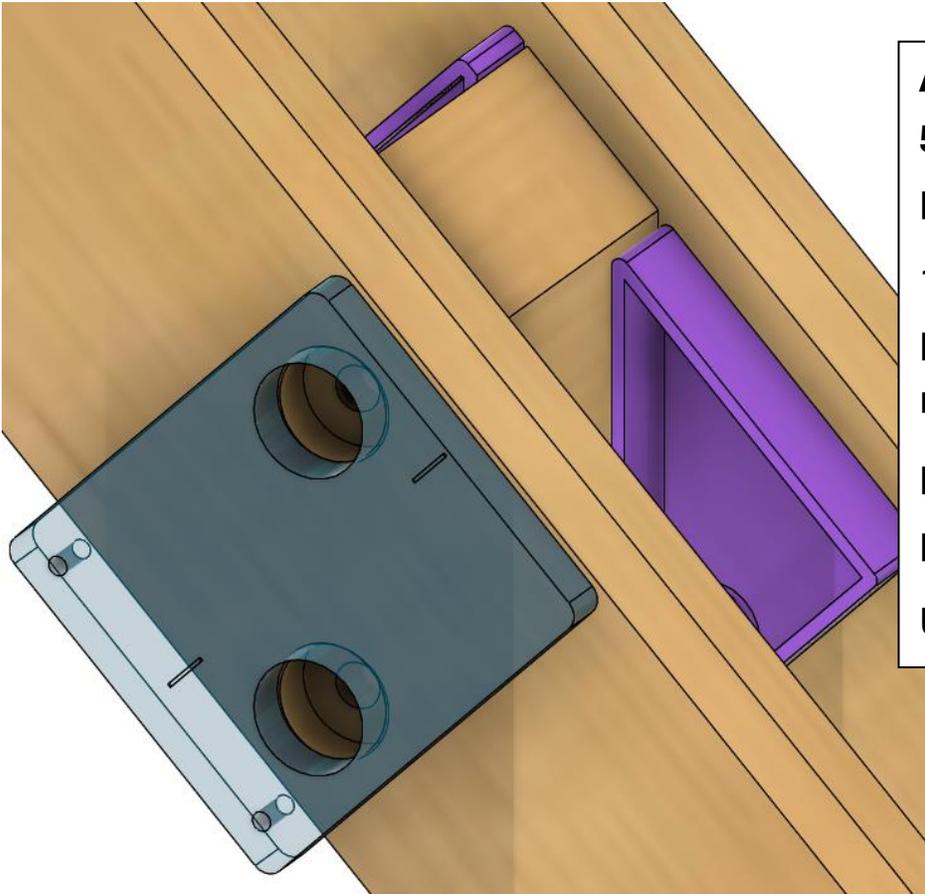


One **3D printed jig** guides a **7/32" twist drill bit** to drill **3.5" deep pilot holes** for **5/16" lag screws**.

1st jig is then replaced with 2nd jig to guide a **5/16" twist drill bit** to drill **1.5" deep clear holes** for **5/16" lag screws**.

Used in 8 locations.

Jigs and fixture for 1/4" screws (3D Printed and Laser Cut)

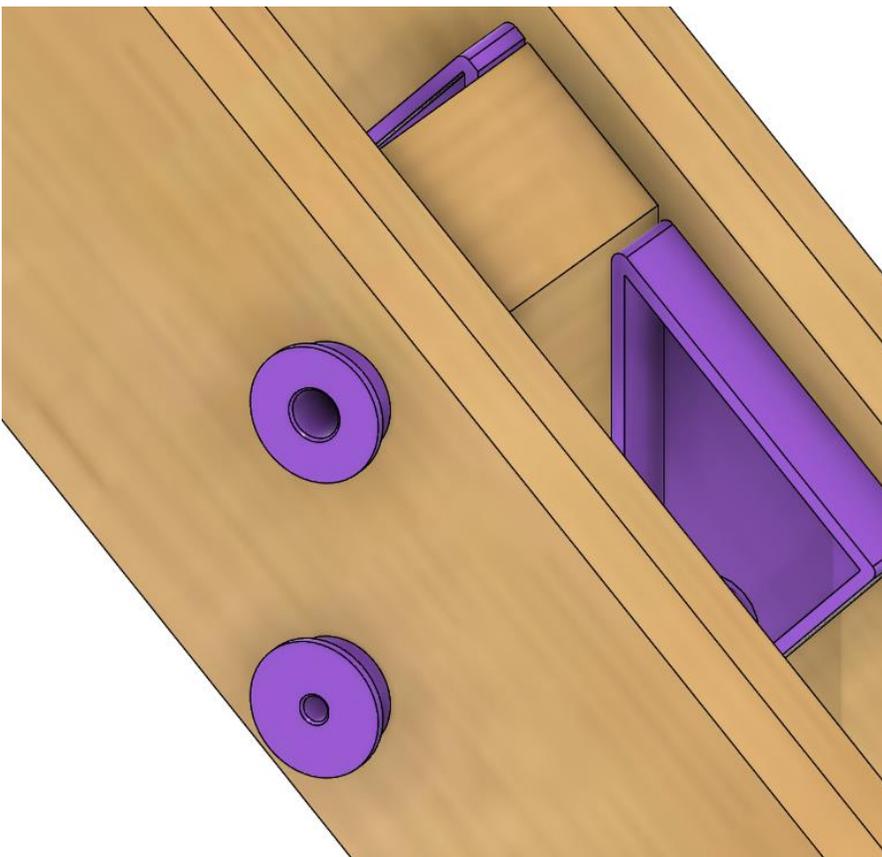


Acrylic laser cut jig guides a **5/8" Forstner bit** to drill pockets for **1/4" lag screws**.

1/8" pins are added to bottom perimeter holes for registration.

Laser etched center lines aid proper positioning on rail.

Used in 12 locations.



3D Printed fixture secured with C-Clamps maintain proper cross-member position when drilling.

One **3D printed jig** guides a **7/32" twist drill bit** to drill **2" deep pilot holes** for **1/4" lag screws**.

1st jig is then replaced with 2nd jig to guide a **1/4" twist drill bit** to drill **0.75" deep clear holes** for these lag screws.

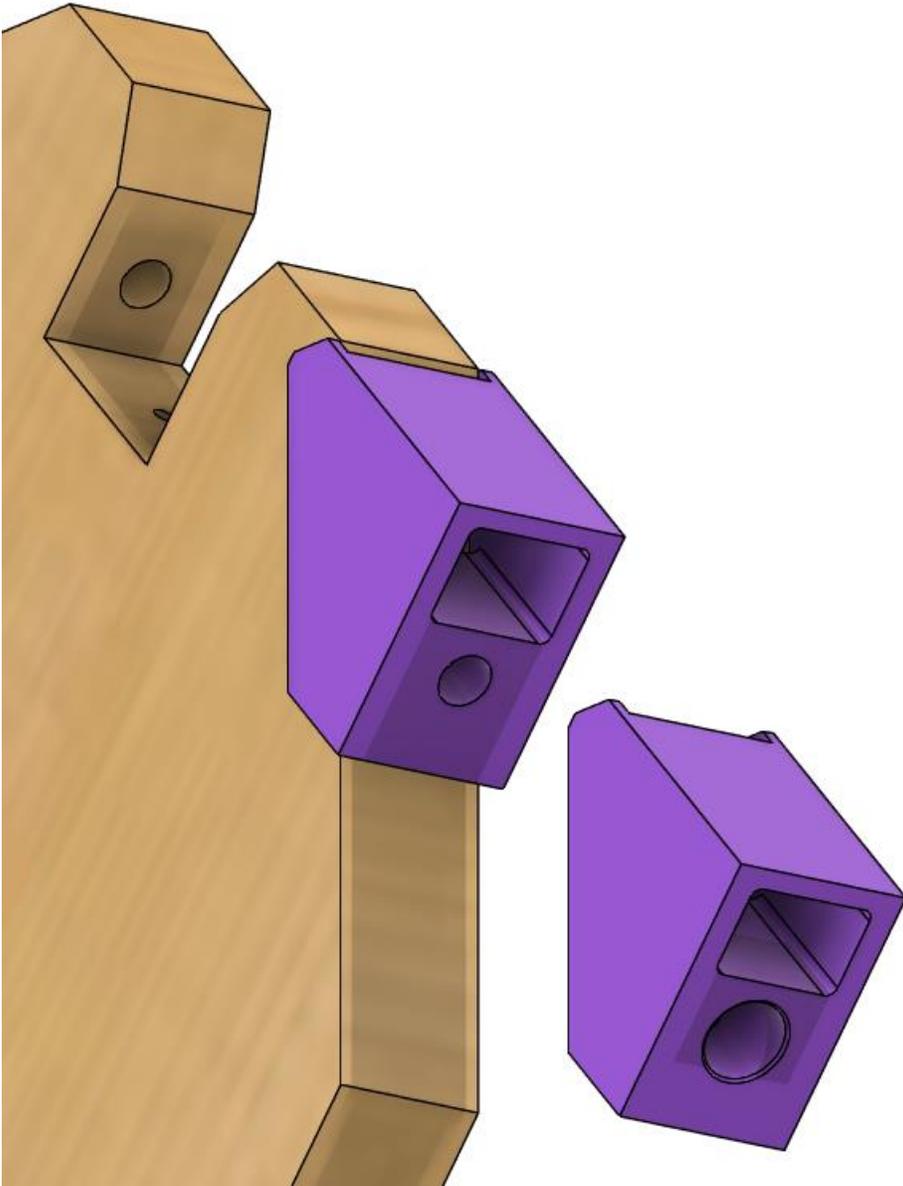
Used in 12 locations.

Jigs for 1/4" screw pockets (3D Printed)

1st jig is secured to wood with C-Clamp and guides a **1/4" twist drill bit** through to middle slot. This provides a **clear hole** for a 1/4-20 socket head screw.

The jig is then replaced with the 2nd jig to drill a **0.25" deep 13/32" pocket hole** for the 0.375 diameter socket screw head.

Both jigs have a **45 degree inner surface** that is held against the wood surface.



BOM (Bill Of Materials)

Line	Qty	Type	Description	Part Num	Price
1	8	screw	10-32 3/4"L 82deg FlatHead Phillips Steel ZincPlated	90273A831	\$8.60(100)
2	2	screw	6-32 5/16"L 82deg FlatHead Phillips Steel ZincPlated	90273A145	\$5.57(100)
3	28	screw	4-40 5/8"L PanHead Phillips Steel ZincPlated	90272A112	\$2.65(100)
4	9	screw	4-40 3/8"L PanHead Phillips Steel ZincPlated	90272A108	\$2.02(100)
5	3	screw	#4 5/8"L RoundHead Phillip SheetMetalBlunt 18-8SS	92525A209	\$6.61(100)
6	16	screw	Lag HexHead 5/16" 2"L Steel ZincPlated	91478A591	\$11.59(50)
7	8	screw	Lag HexHead 5/16" 3"L Steel ZincPlated	91478A595	\$17.16(50)
8	40	screw	#12 1-1/2"L RoundHead Slotted/Phillips SheetMetal 18-8SS	92465A266	\$12.14(25)
9	4	screw	Lag HexHead 5/16" 2-1/2"L Steel ZincPlated	91478A593	\$14.19(50)
10	36	screw	1/4" 1-1/2"L HexHead Steel ZincPlated	91478A546	\$13.25(100)
11	4	screw	1/4-20 1-3/4"L SocketHead Steel ZincPlated	90128A252	\$4.91(10)
12	4	screw	#12 5/8"L RoundHead Slotted/Phillips SheetMetal 18-8SS	92465A259	\$10.03(50)
13	4	screw	1/4-20 1-3/4"L HexHead Steel ZincPlated	91236A548	\$12.11(100)
14	28	nut	4-40 3/16"W NarrowProfile Steel ZincPlated	90760A005	\$2.83(100)
15	2	nut	5/16-18 1/2"W Grade2 Steel ZincPlated	90473A030	\$4.87(100)
16	8	nut	10-32 5/16"W NarrowProfile Steel ZincPlated	90760A411	\$6.81(100)
17	6	nut	1/4-20 ThinProfile NylonInsert Steel ZincPlated	90566A029	\$5.92(100)
18	9	nut	4-40 LowStrength Steel ZincPlated	90480A005	\$1.10(100)
19	2	nut	6-32 LowStrength Steel ZincPlated	90480A007	\$1.57(100)
20	28	washer	0.312"ID 0.734"OD Steel ZincYellowChromate	98026A029	\$13.90(100)
21	16	washer	1/4" 0.266"ID 0.562"OD Undersized Steel ZincPlated	91090A106	\$3.25(50)
22	2	rod	Threaded 5/16-18 1-1/2ft LowStrengthSteel ZincPlated	90034A054	\$2.22(1)
23	1	latch	Toggle 3.8inMax 4001 Amazon	B07S896GLP	\$8.99(2)
24	2	wood	Stud 2x3 42.4in 105deg 150deg		
25	2	wood	Stud 2x3 42.4in 105deg 75deg		
26	2	wood	Stud 2x3 24in		
27	1	wood	0.75 24.125x5.5 CrossMember		
28	1	wood	Plywood Bot 23/32 2ftx2ft Sanded HomeDepot	109121	\$12.50
29	2	wood	Plywood Side 23/32 2ftx2ft Sanded HomeDepot	109121	\$12.50
30	2	wood	1x12 0.75" KilnDried Whitewood(SPF) Board		
31	2	wood	1x12 0.75" KilnDried Whitewood(SPF) Board SideFrame		
32	1	wood	1x12 0.75" KilnDried Whitewood(SPF) Board FrameBottom		
33	1	wood	1x3 Poplar Board 63" LeftRail		
34	1	wood	1x3 Poplar Board 63" RightRails		
35	1	wood	1x12 0.75" KilnDried Whitewood(SPF) Board BottomPlate		
36	6	wood	1x3 Poplar Board 2" Crossmember1		
37	4	wheel	2"Dia 2.563"x1.875"Plate Caster Polypropylene	78155T41	\$4.60(1)
38	1	jig	PLA Pocket_250		
39	1	jig	PLA Pocket_390		
40	1	jig	PLA 5/16LagScrewPilotHole		
41	1	jig	PLA 5/16LagScrewClearHole		
42	1	jig	PLA 1/4LagScrewPilotHole		
43	1	jig	PLA 1/4LagScrewClearHole		
44	1	jig	Acrylic LaunchRail		
45	1	jig	Acrylic StandBottom		
46	1	fixture	PLA LaunchRails		

47	2	printPLA	ThreadedRodSupportTop		
48	2	printPLA	ThreadedRodSupportBottom		
49	2	printPLA	Slider		
50	1	printPLA	MissileMountTop		
51	1	printPLA	MissileMountBotLeft (1)		
52	1	printPLA	MissileMountLatch		
53	1	printPLA	MissileMountBotRight		
54	1	printPLA	HingeUpper		
55	1	printPLA	HingeLower		
56	1	printPLA	EndPlateInsert		
57	4	lasercut	SliderTrack_0.7Wide		
58	4	lasercut	SliderTrack_0.5Wide		
59	2	lasercut	SliderTrack_RearPlate		
60	1	lasercut	RailEndPlate		
61	1	undef	AIM9 Missile Depot	AIM-9	\$50,000.00