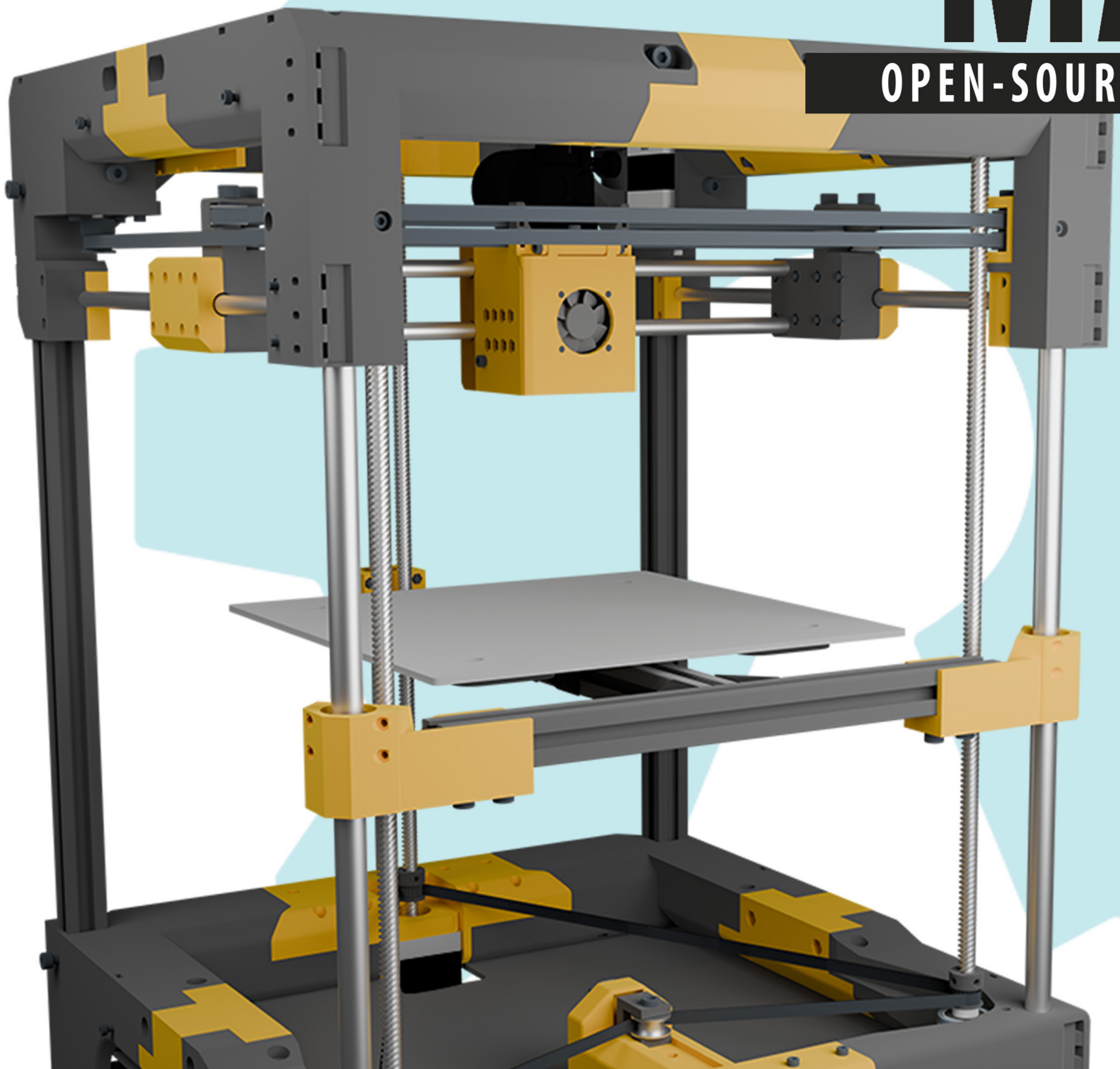
THE MAGPIE

OPEN-SOURCE & EASY TO BUILD

Version 1.0



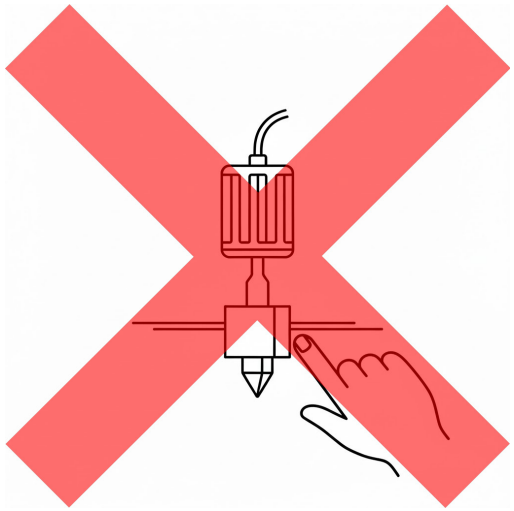
SAFETY DISCLAIMER

WHILE FUN AND REWARDING, 3D PRINTING IS NOT WITHOUT ITS HAZARDS. PRINTERS HAVE HEATING ELEMENTS THAT CAN BURN YOU IF YOU'RE NOT CAREFUL. DO NOT TOUCH THE HOTEND OR THE HEATED BED WHILE THE MACHINE IS IN OPERATION. IF YOU'RE UNSURE WHETHER THE HEATED BED OR HOTEND IS ON, DO NOT TOUCH THEM TO FIND OUT.

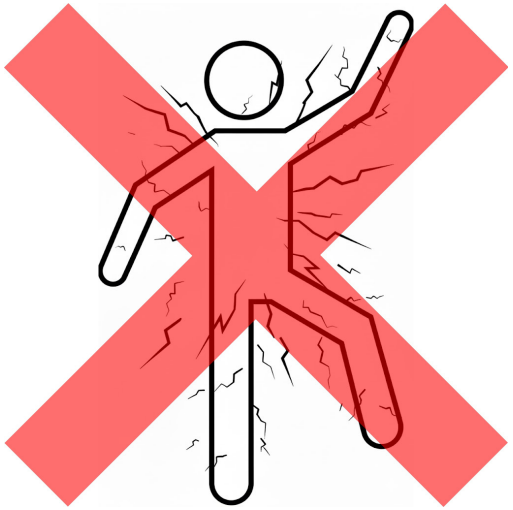
MANY POLYMERS RELEASE IRRITANTS INTO THE AIR WHEN BEING PRINTED, AND SOME POLYMERS PRODUCE FUMES THAT ARE KNOWN CACINOGENS. GENERALLY, PLA AND PETG ARE CONSIDERED TO BE EITHER NON-HARMFUL OR AT THE LEAST RELATIVELY INNOCUOUS TO BREATHE.

THIS PAGE DOES NOT CONSTITUTE HEALTH ADVICE, NOR IS IT INTENDED TO BE. IF YOU BUILD A MAGPIE, THE RESPONSIBILITY TO YOUR HEALTH AND TO YOUR OWN SAFETY IS YOURS ALONE. PLEASE TAKE CARE OF YOURSELF BECAUSE THERE'S ONLY ONE YOU, AND YOU'RE AWESOME.

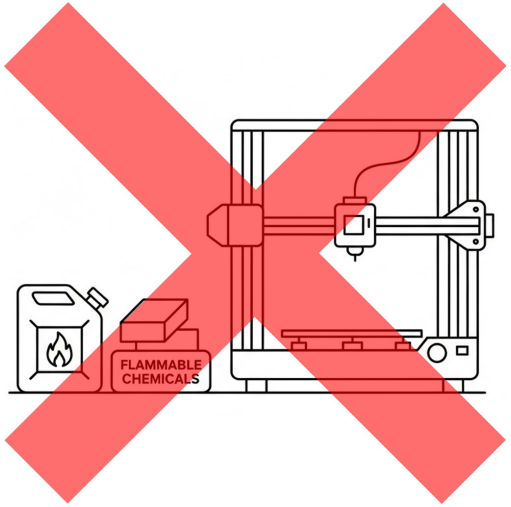
SAFETY TIPS



DON’T TOUCH THE HOTEND

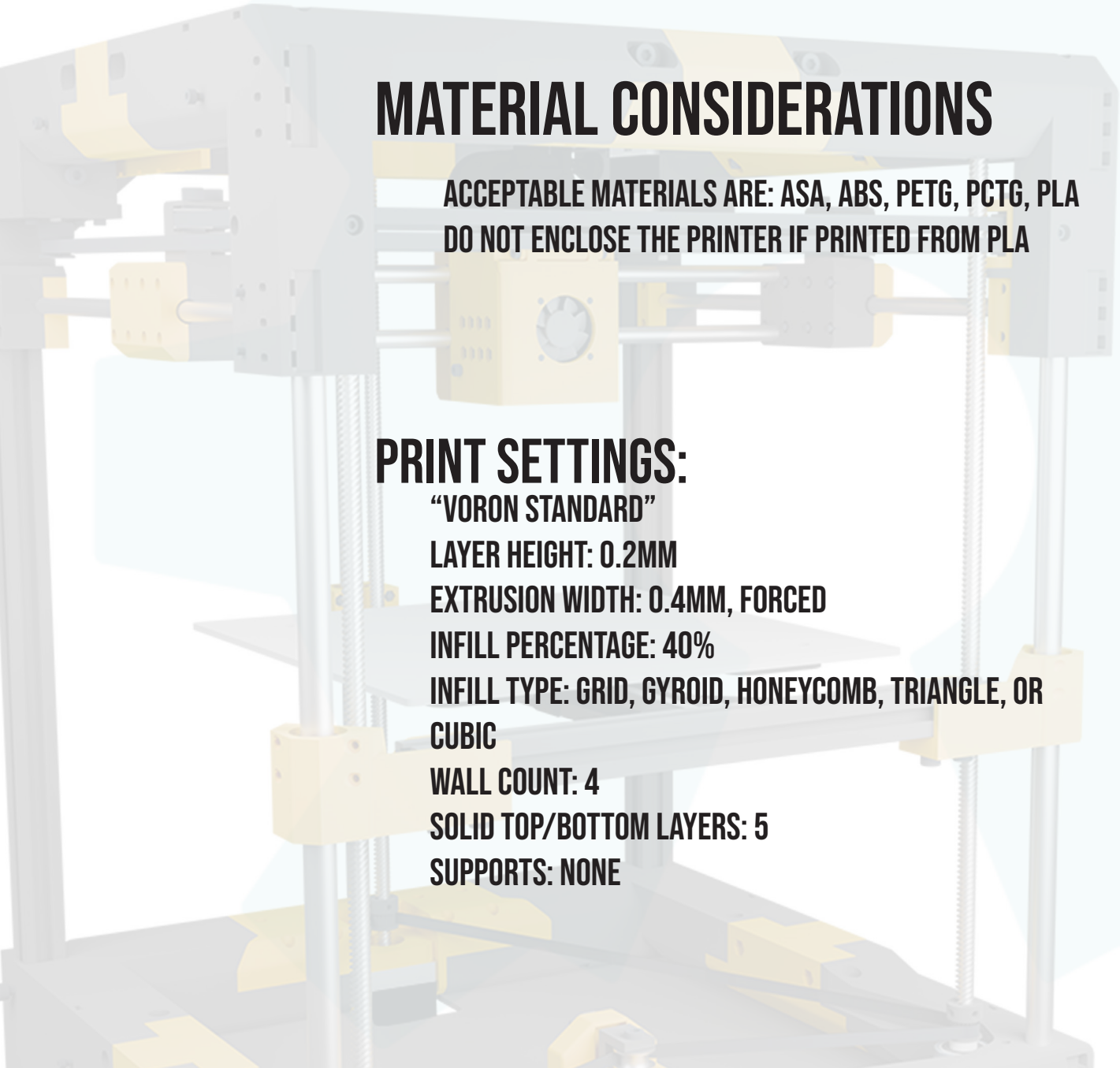


DON’T PLAY WITH MAINS POWER UNLESS YOU KNOW WHAT YOU’RE DOING



DON’T PRINT NEAR THINGS THAT WANT TO BE ON FIRE

PRINTED PARTS SETTINGS



MATERIAL CONSIDERATIONS

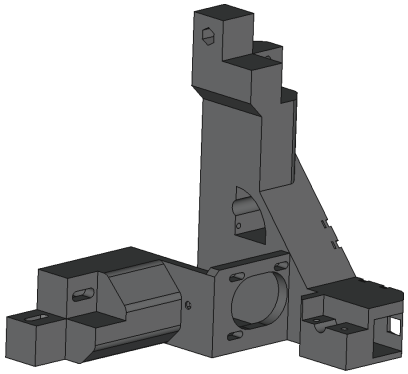
ACCEPTABLE MATERIALS ARE: ASA, ABS, PETG, PCTG, PLA
DO NOT ENCLOSE THE PRINTER IF PRINTED FROM PLA

PRINT SETTINGS:

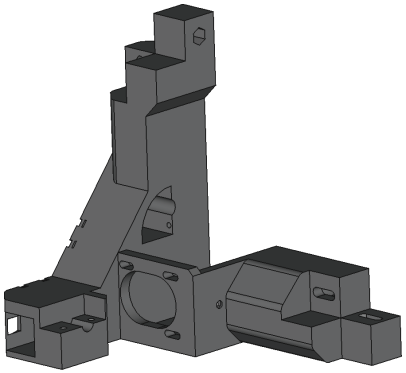
"VORON STANDARD"
LAYER HEIGHT: 0.2MM
EXTRUSION WIDTH: 0.4MM, FORCED
INFILL PERCENTAGE: 40%
INFILL TYPE: GRID, GYROID, HONEYCOMB, TRIANGLE, OR CUBIC
WALL COUNT: 4
SOLID TOP/BOTTOM LAYERS: 5
SUPPORTS: NONE

TOP FRAME ASSEMBLY

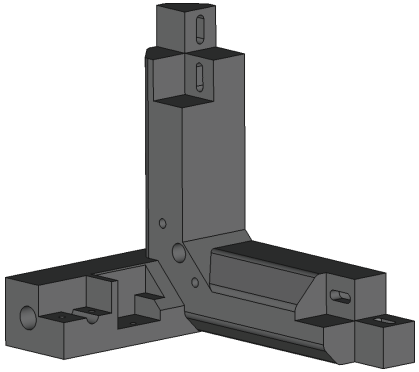
REQUIRED PIECES:



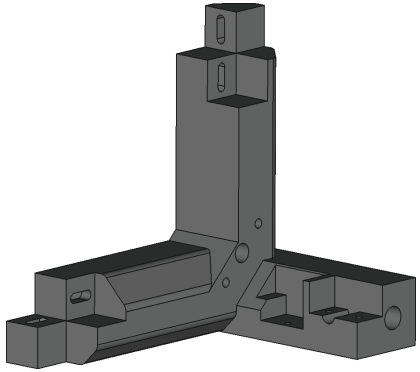
REAR LEFT CORNER



REAR RIGHT CORNER

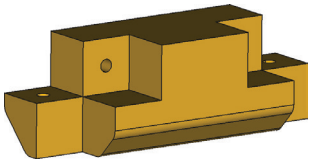


FRONT LEFT CORNER

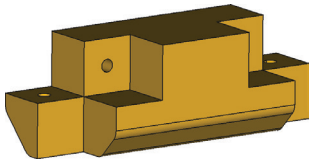


FRONT RIGHT CORNER

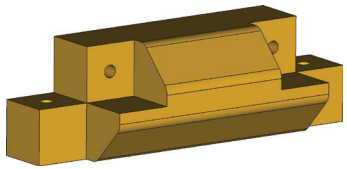
SIDE CONNECTOR (1 OF 2)



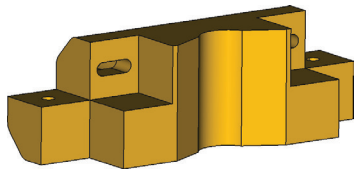
SIDE CONNECTER (2 OF 2)



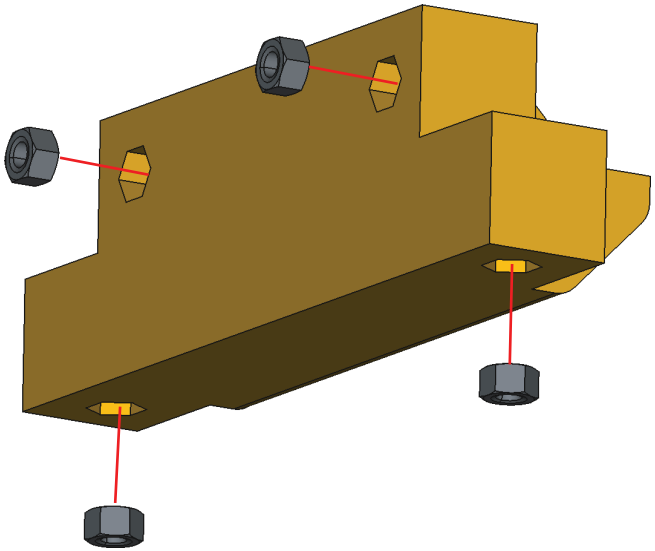
FRONT CONNECTOR



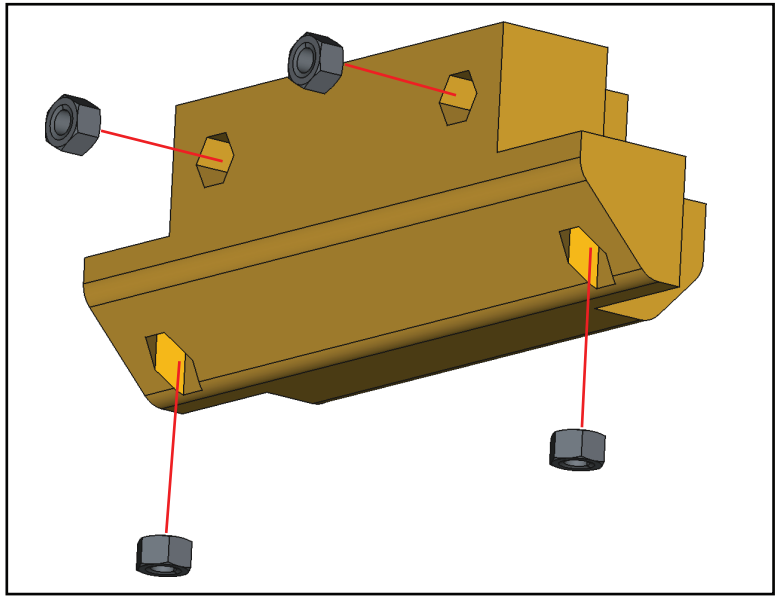
REAR CONNECTOR



TOP FRAME ASSEMBLY

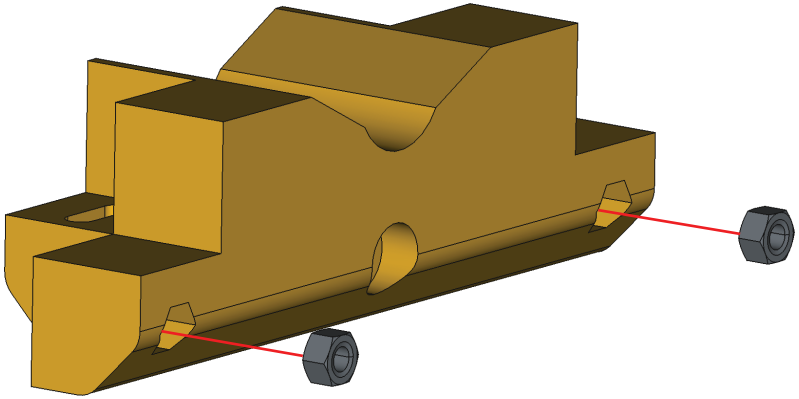


FRONT CONNECTOR



SIDE CONNECTOR

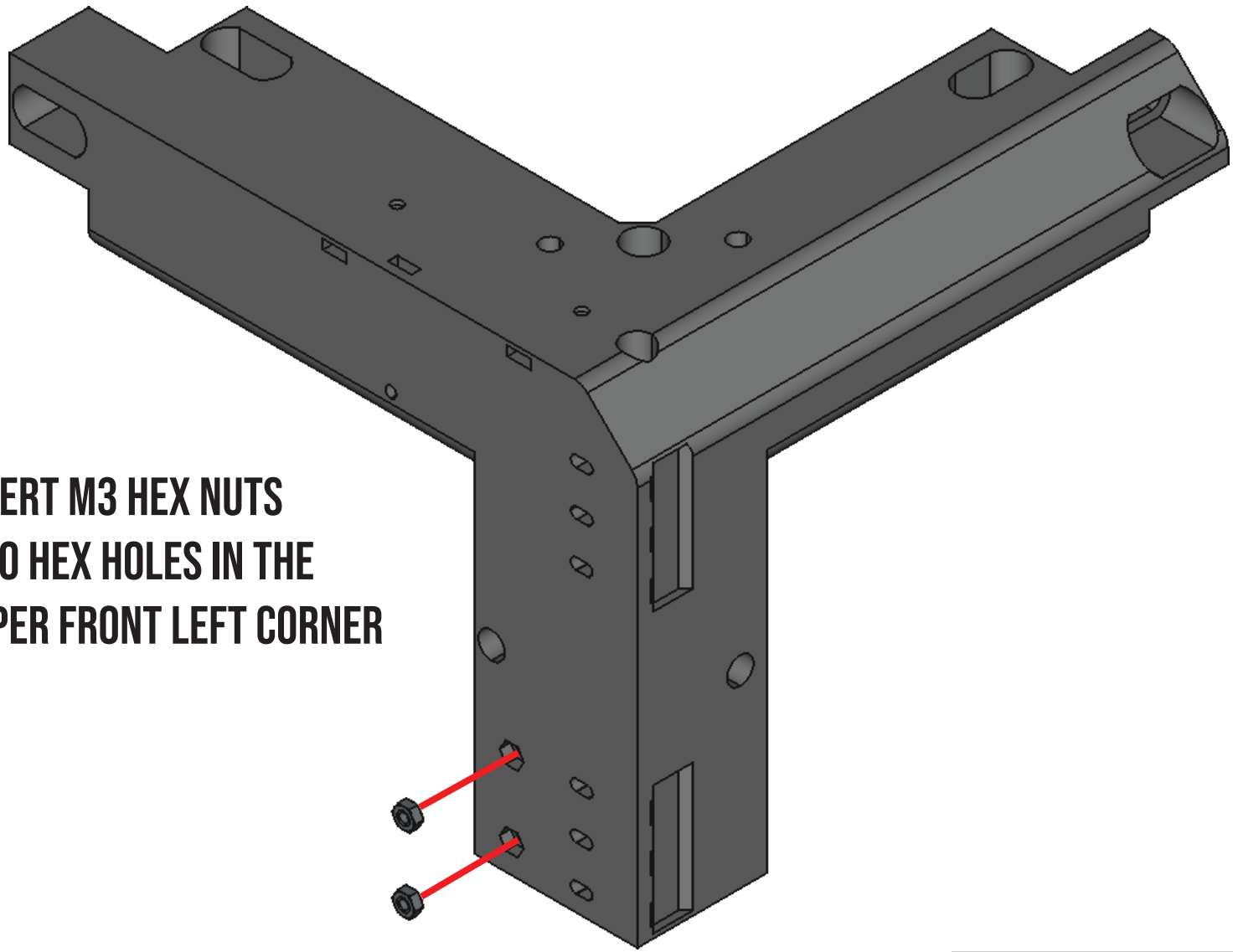
X2



REAR CONNECTOR

M5 HEX NUT

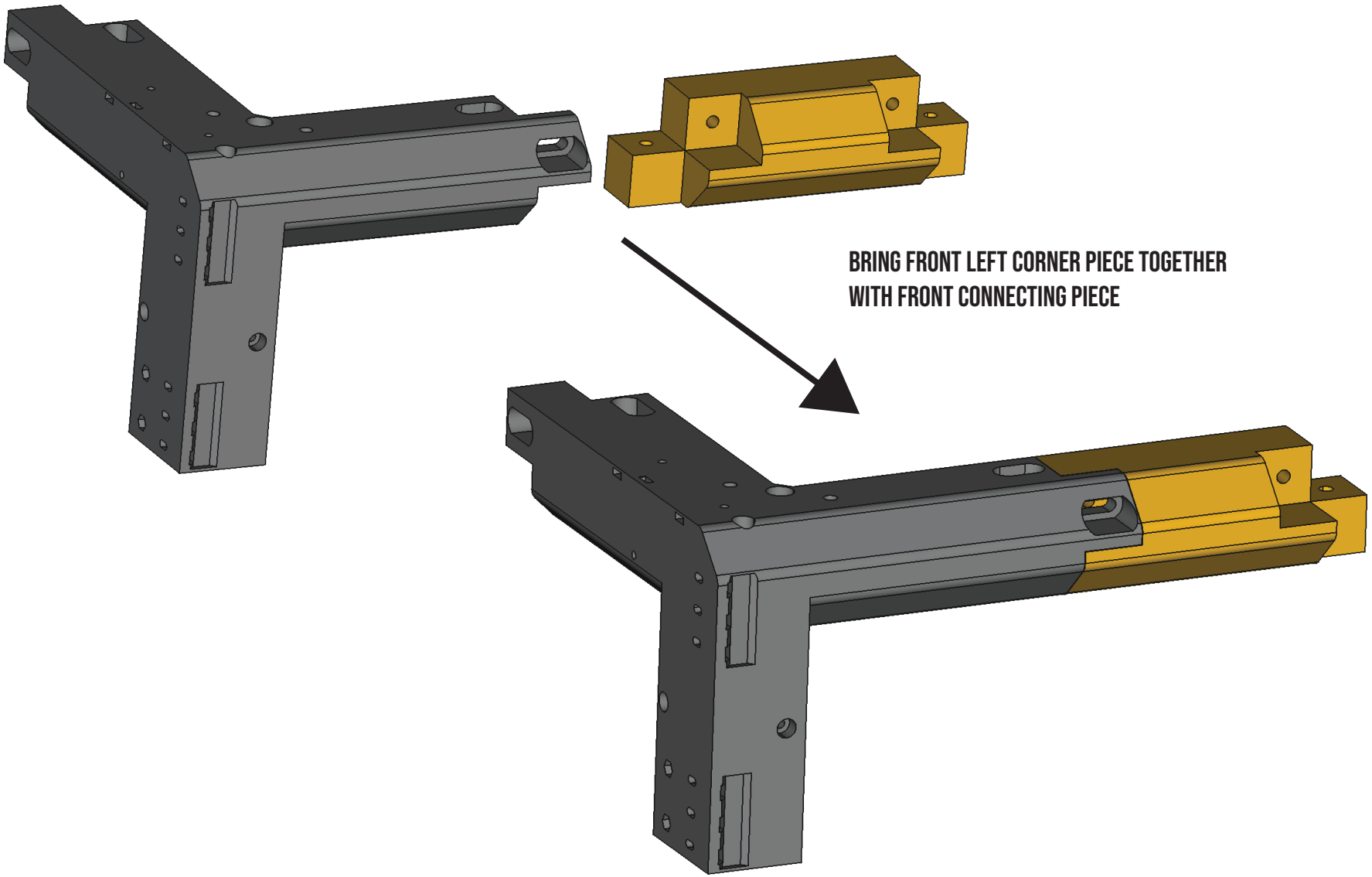
TOP FRAME ASSEMBLY



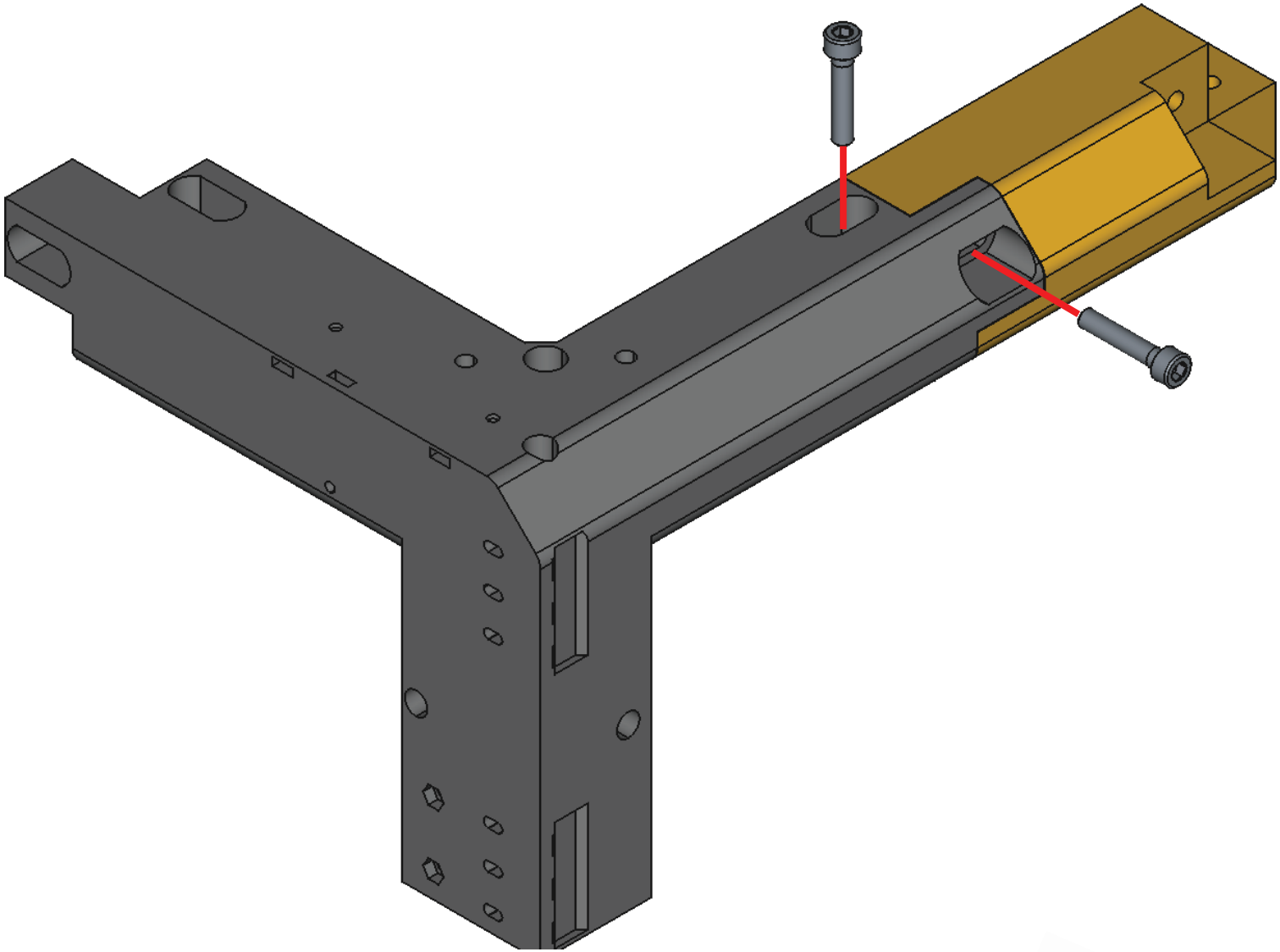
INSERT M3 HEX NUTS
INTO HEX HOLES IN THE
UPPER FRONT LEFT CORNER

M3 HEX NUT

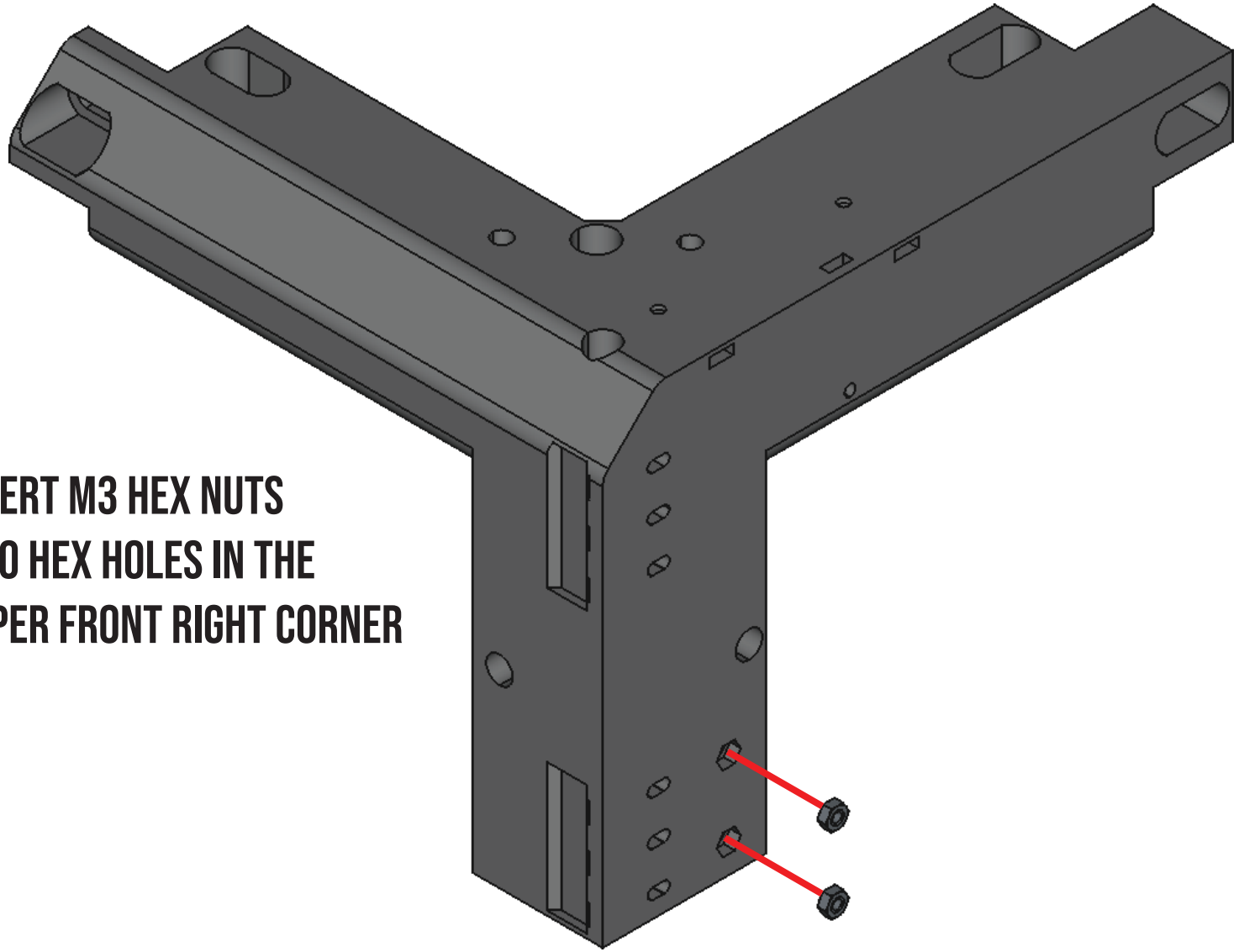
TOP FRAME ASSEMBLY



TOP FRAME ASSEMBLY



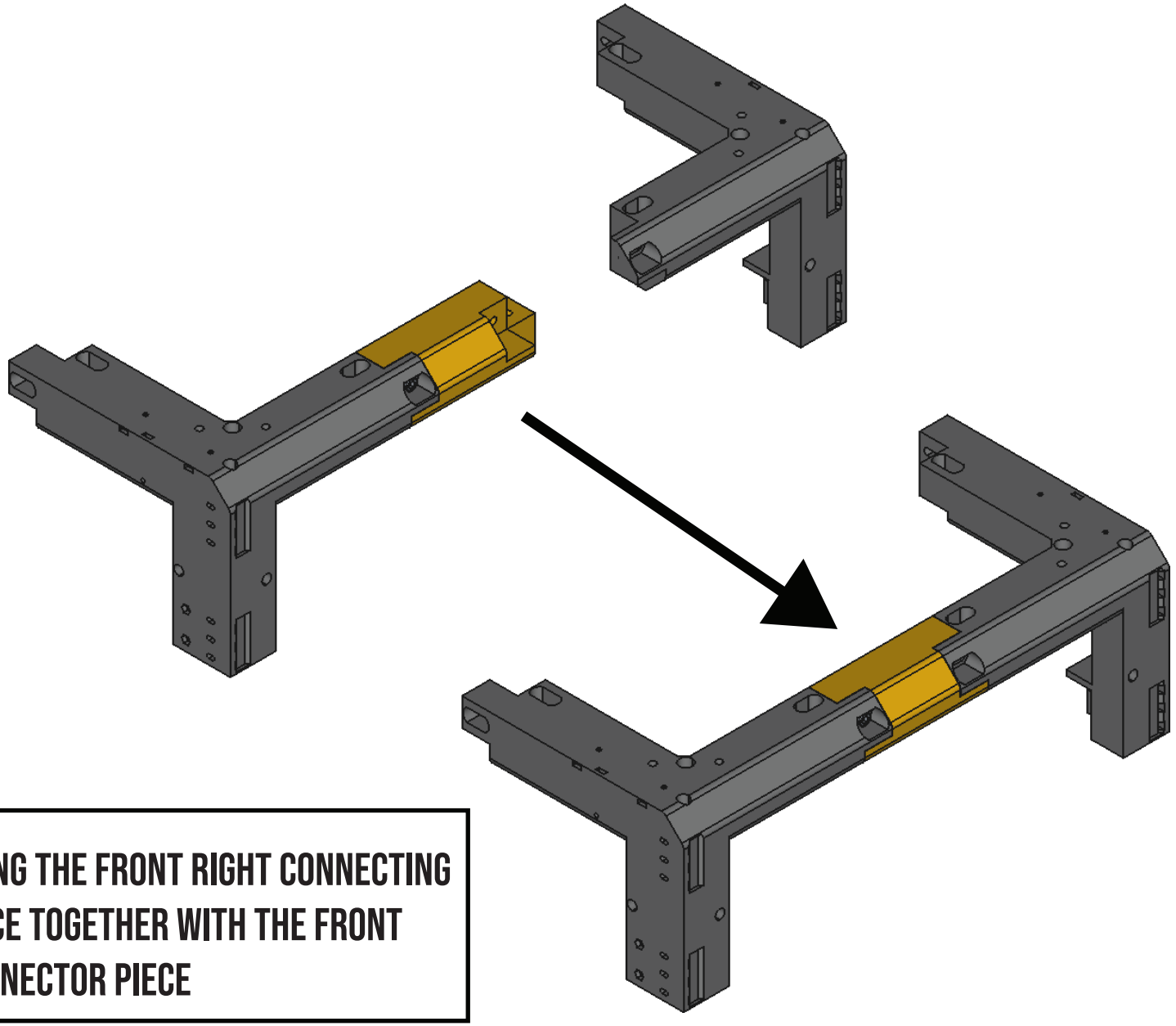
TOP FRAME ASSEMBLY



INSERT M3 HEX NUTS
INTO HEX HOLES IN THE
UPPER FRONT RIGHT CORNER

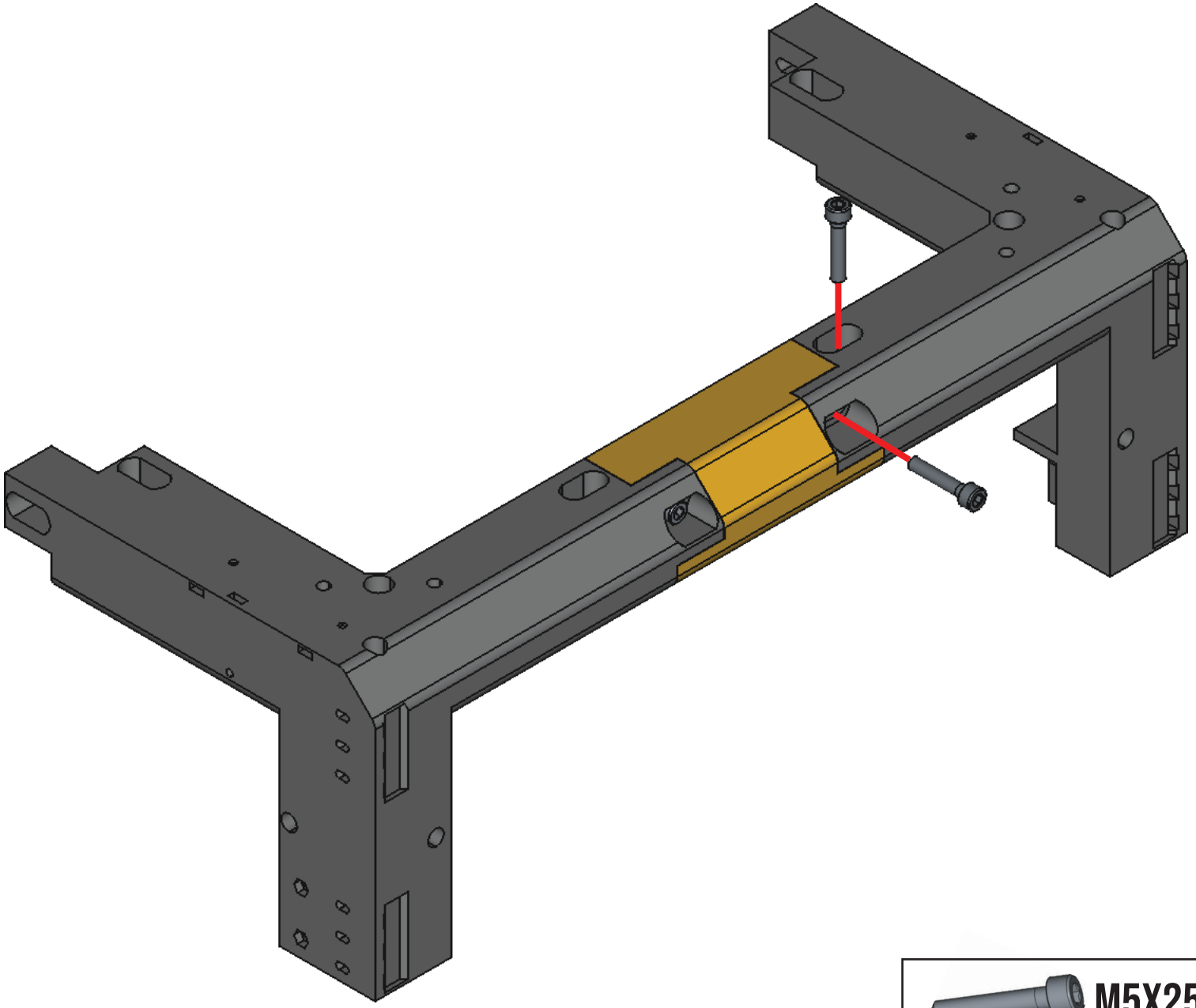
M3 HEX NUT

TOP FRAME ASSEMBLY

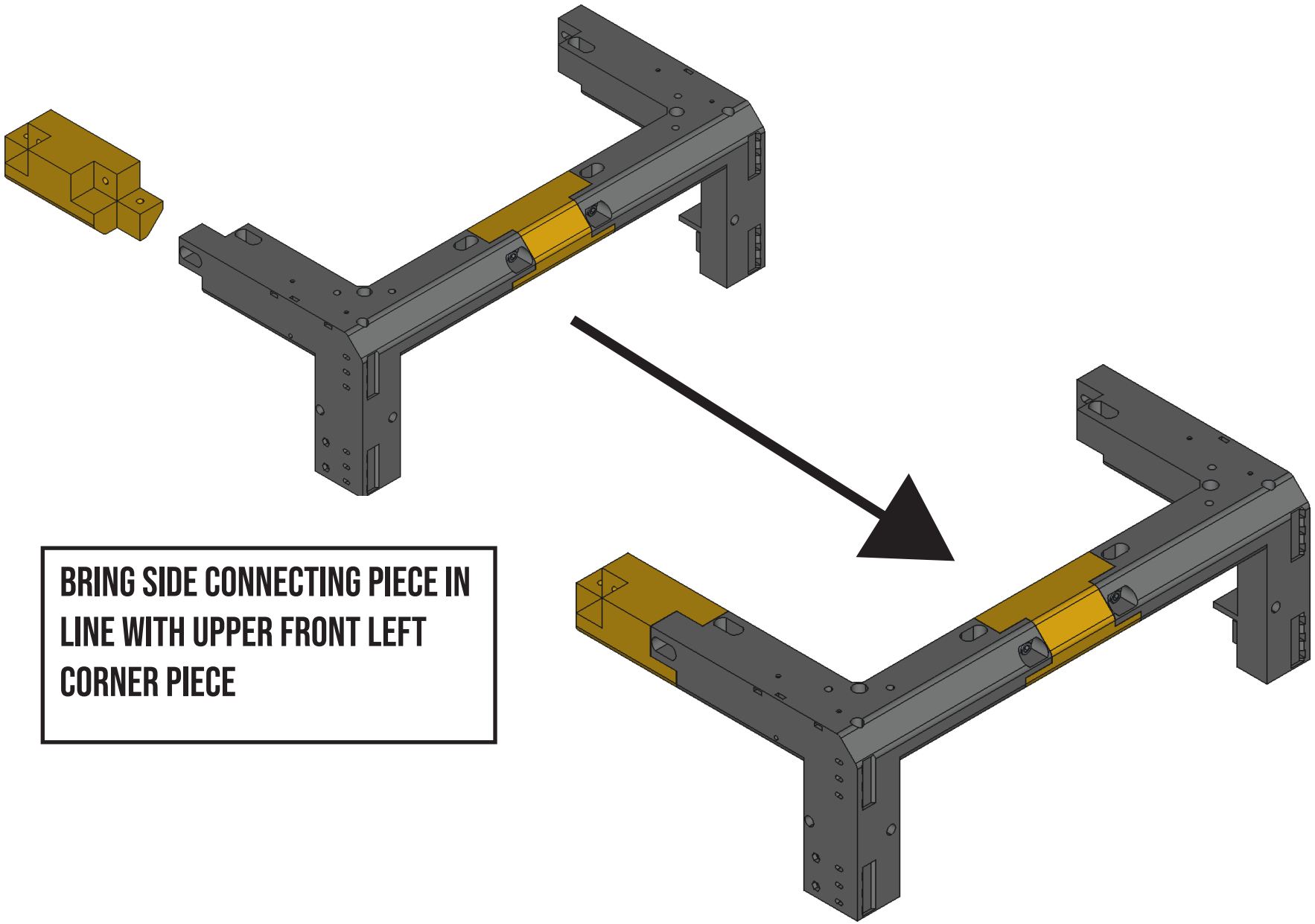


BRING THE FRONT RIGHT CONNECTING PIECE TOGETHER WITH THE FRONT CONNECTOR PIECE

TOP FRAME ASSEMBLY

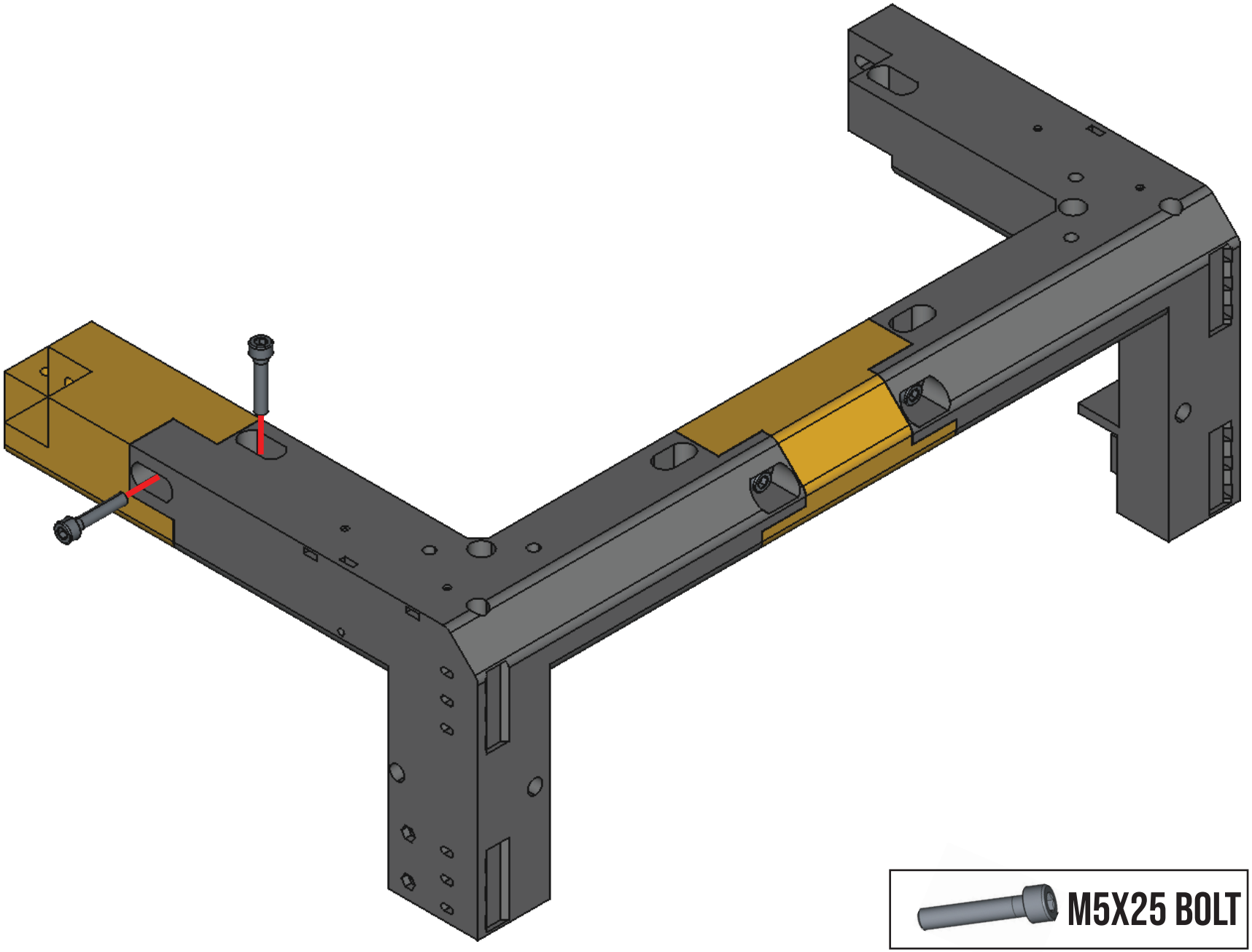


TOP FRAME ASSEMBLY

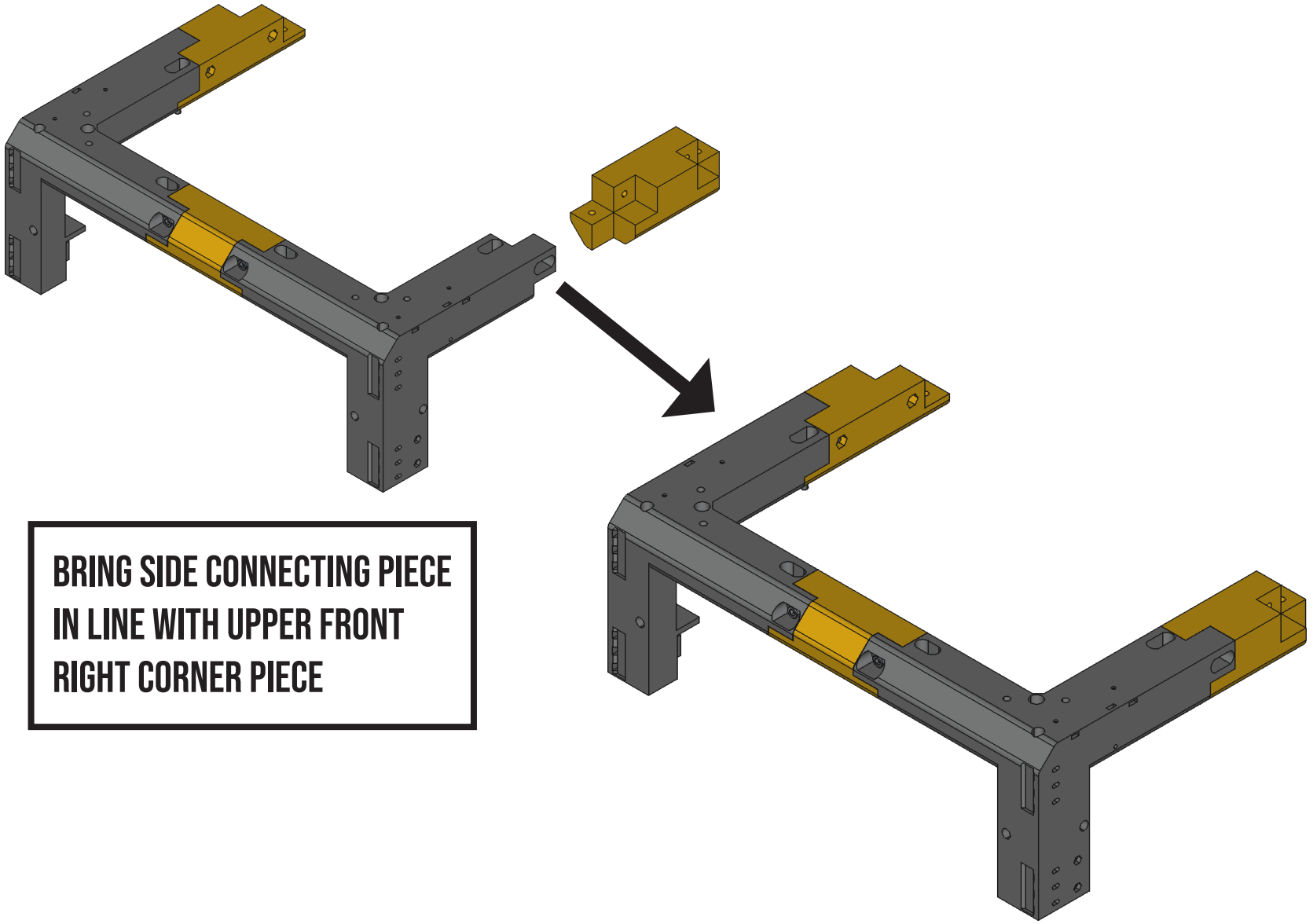


BRING SIDE CONNECTING PIECE IN LINE WITH UPPER FRONT LEFT CORNER PIECE

TOP FRAME ASSEMBLY

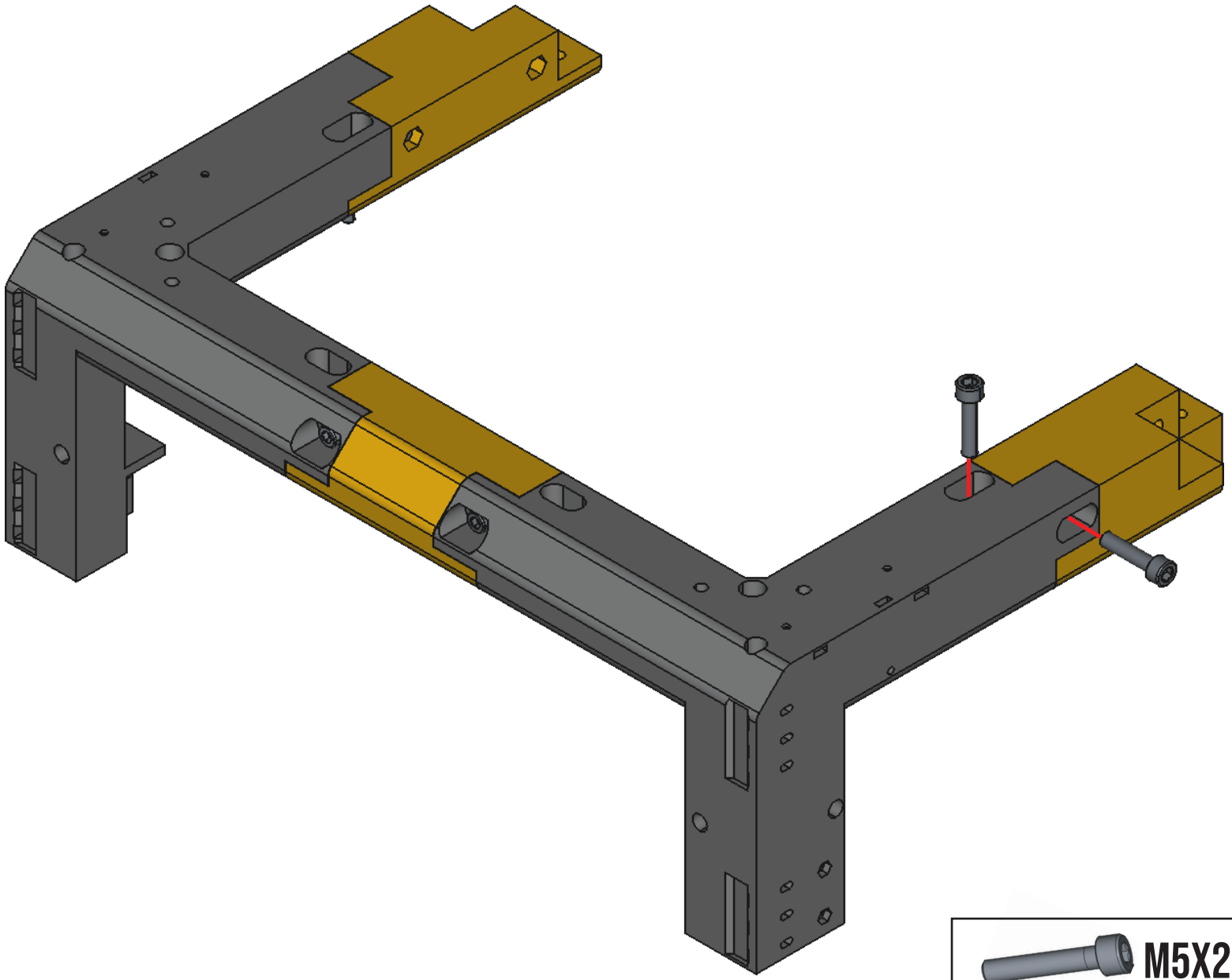


TOP FRAME ASSEMBLY

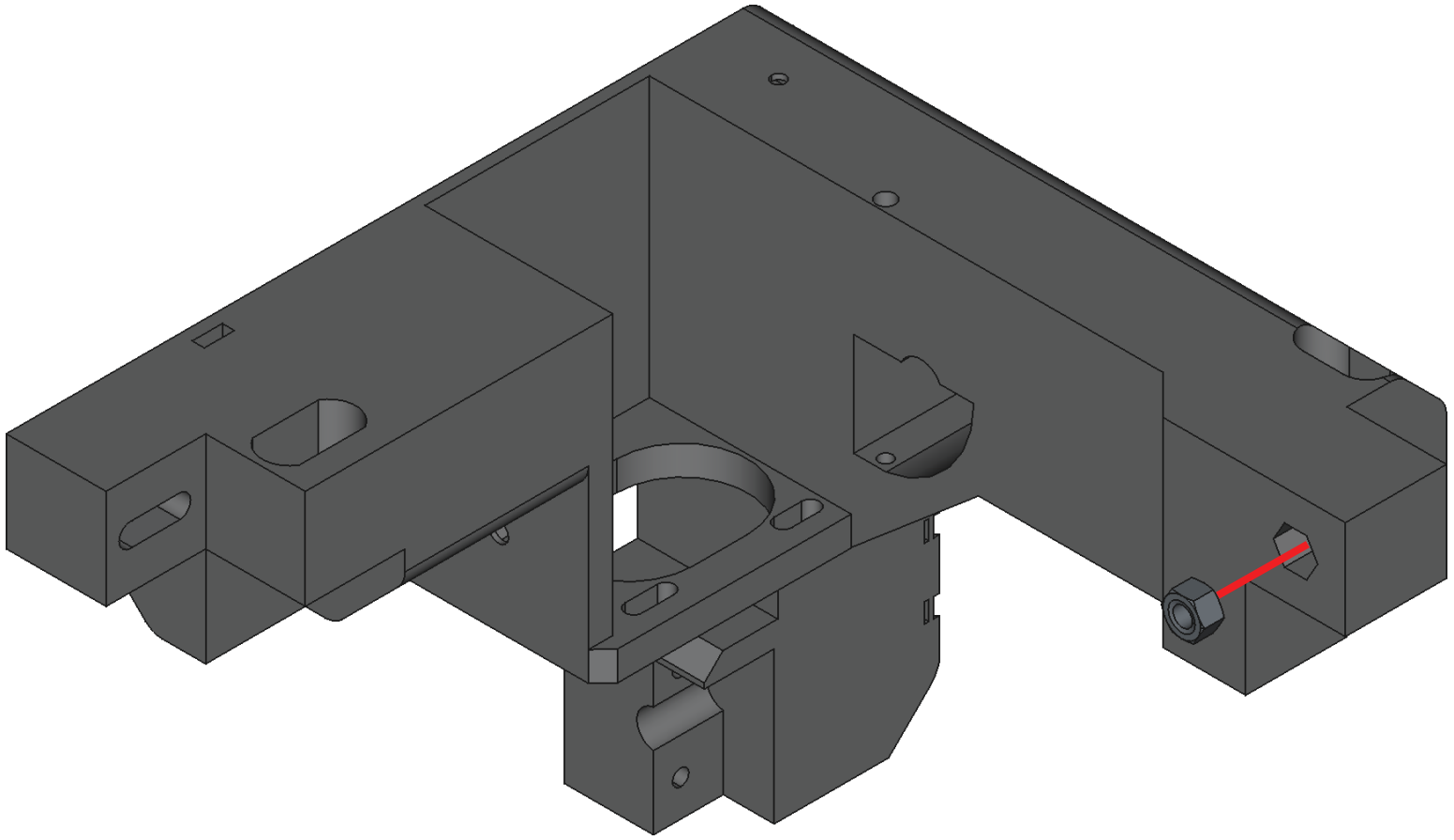


BRING SIDE CONNECTING PIECE IN LINE WITH UPPER FRONT RIGHT CORNER PIECE

TOP FRAME ASSEMBLY



TOP FRAME ASSEMBLY

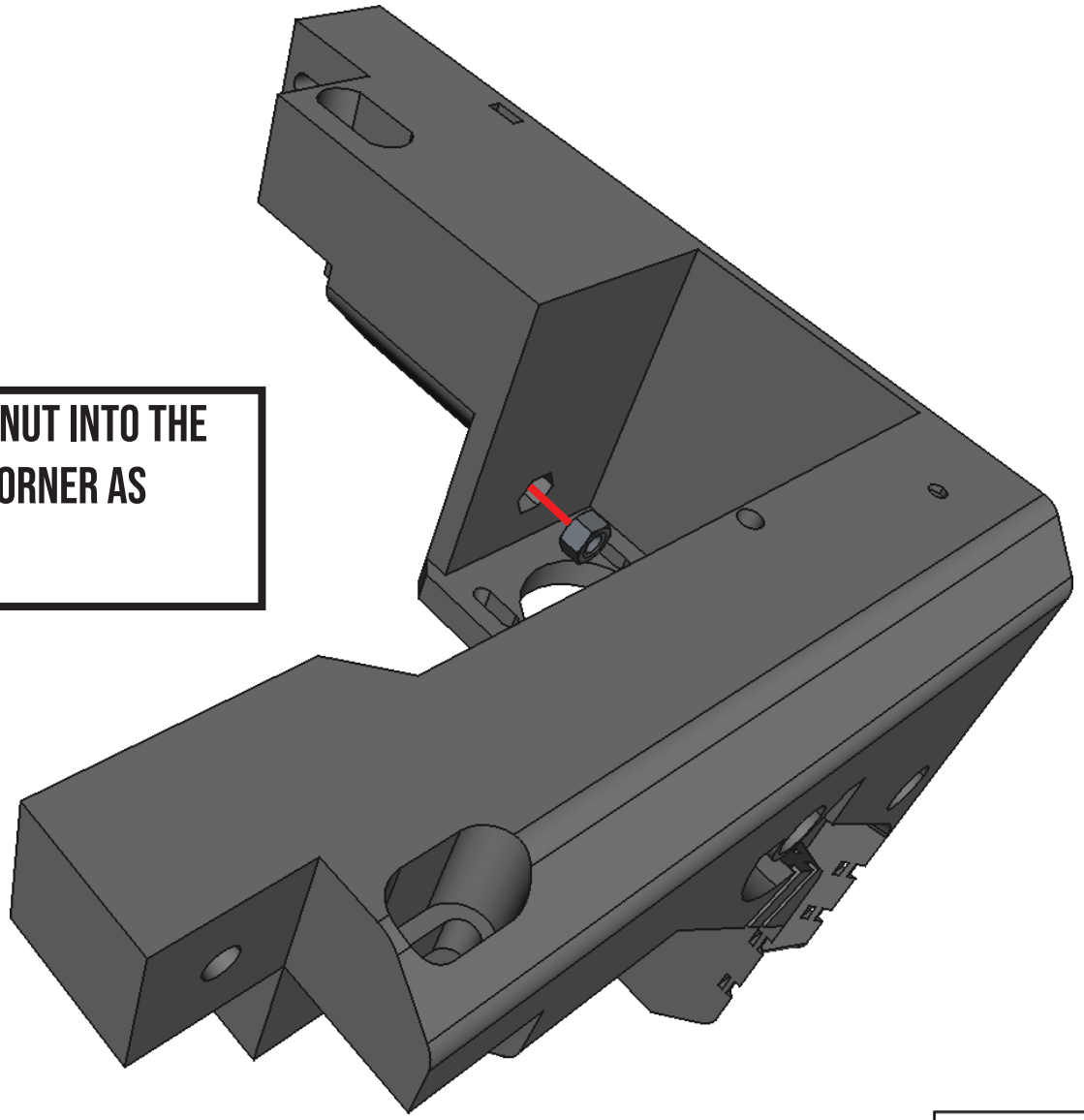


PUT THE M5 HEX NUT INTO THE TOP REAR LEFT CORNER AS SHOWN

M5 HEX NUT

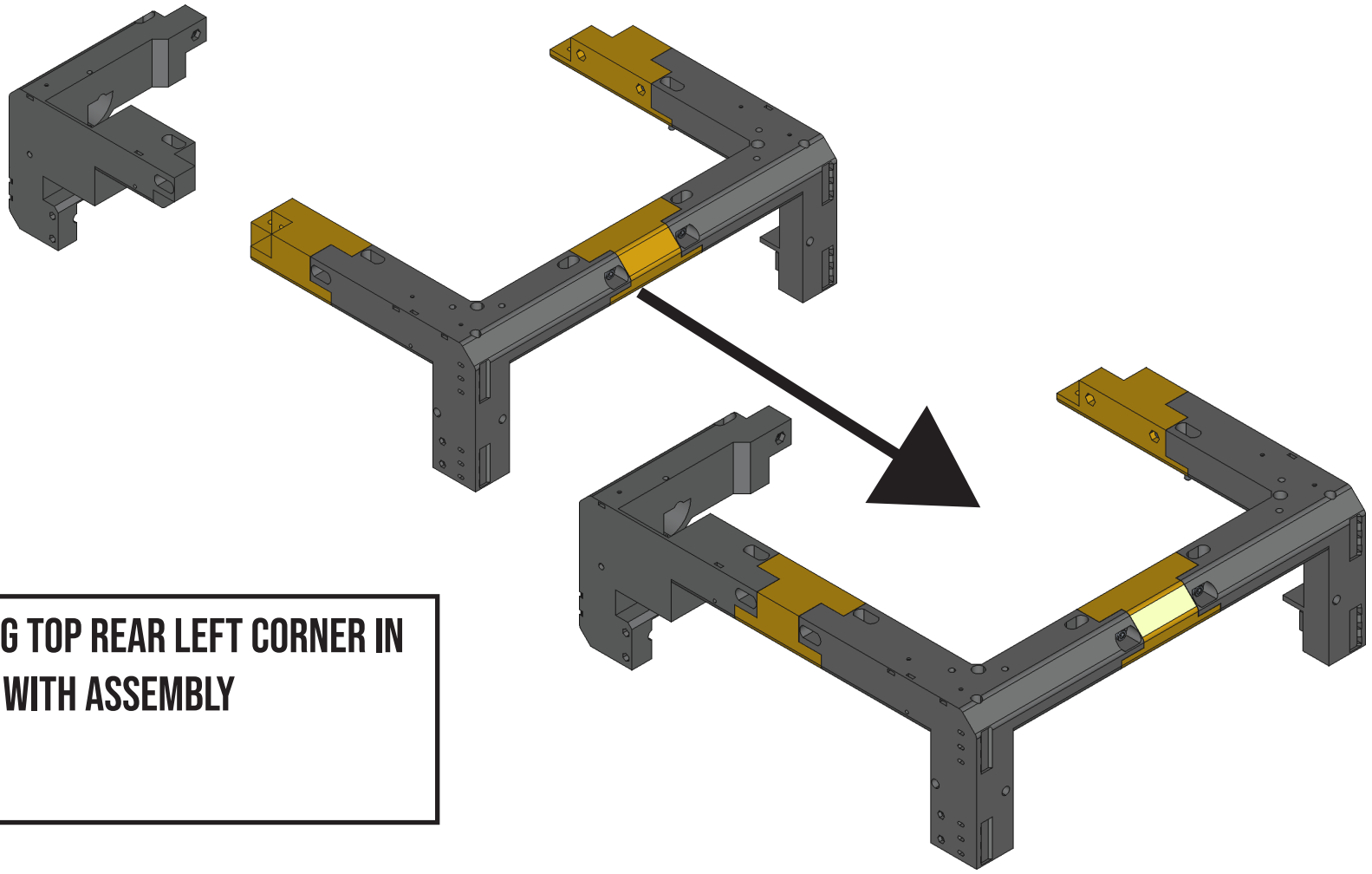
TOP FRAME ASSEMBLY

PUT THE M5 HEX NUT INTO THE TOP REAR LEFT CORNER AS SHOWN



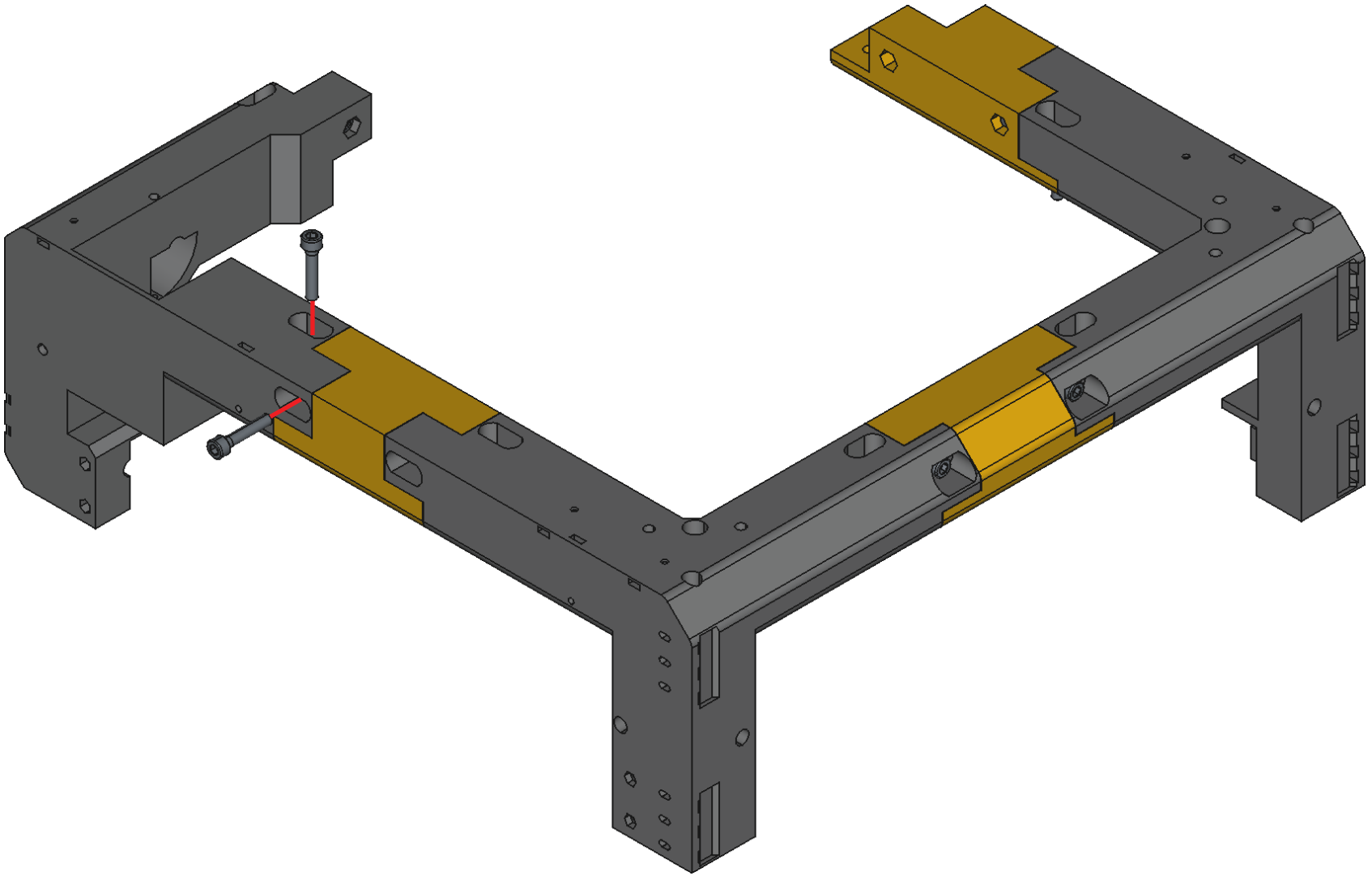
M5 HEX NUT

TOP FRAME ASSEMBLY

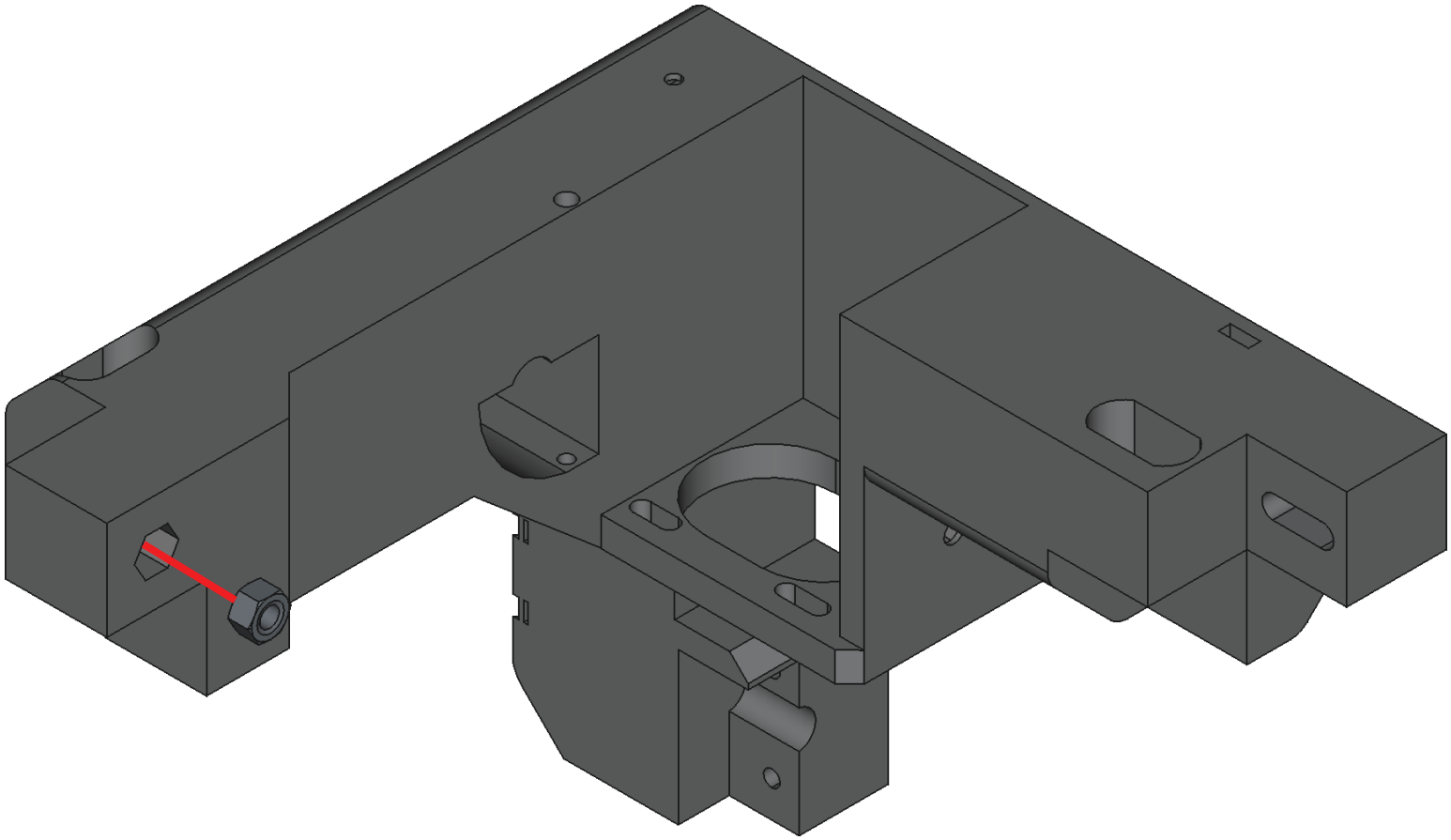


BRING TOP REAR LEFT CORNER IN LINE WITH ASSEMBLY

TOP FRAME ASSEMBLY



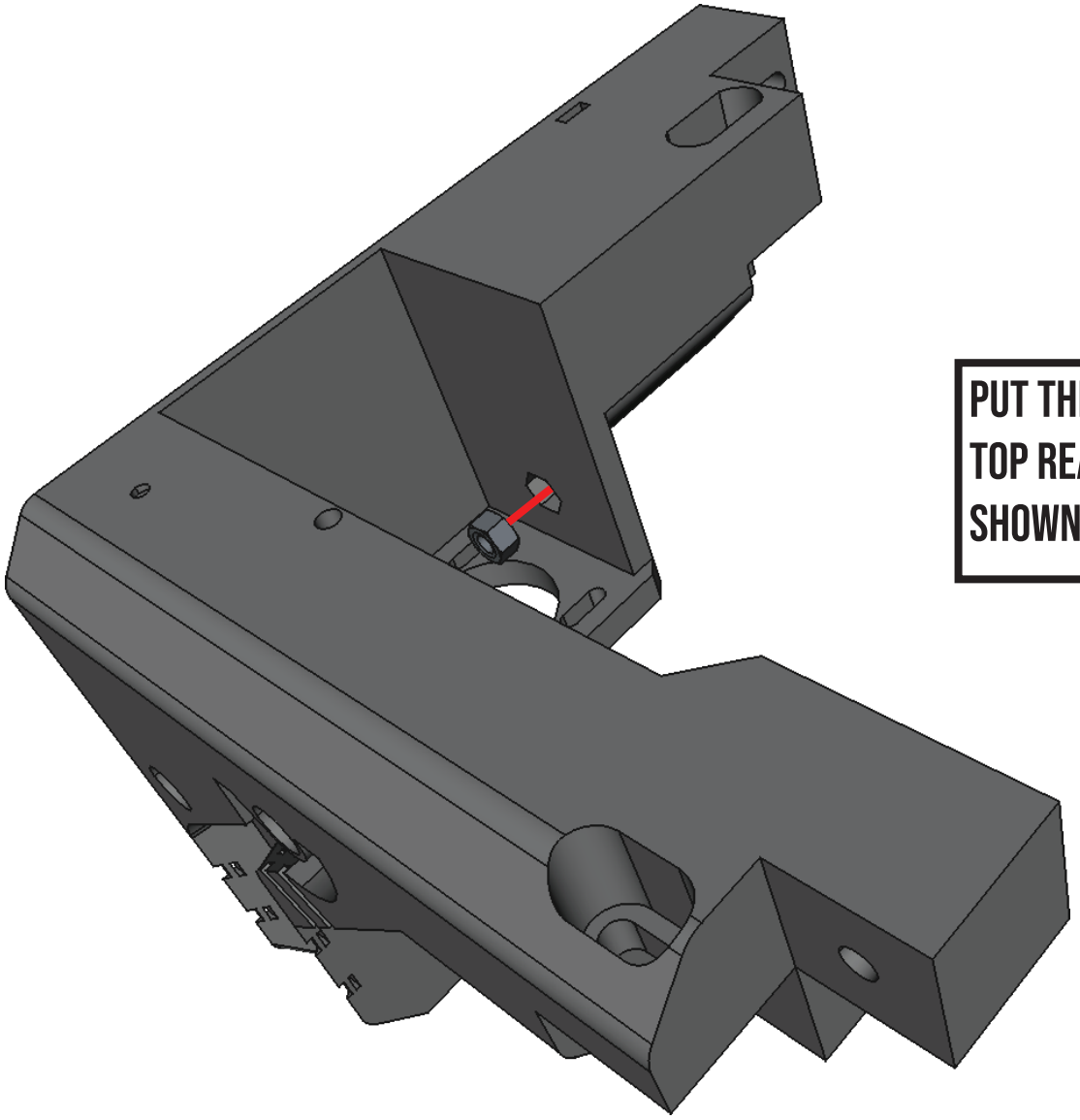
TOP FRAME ASSEMBLY



PUT THE M5 HEX NUT INTO THE TOP REAR RIGHT CORNER AS SHOWN

 M5 HEX NUT

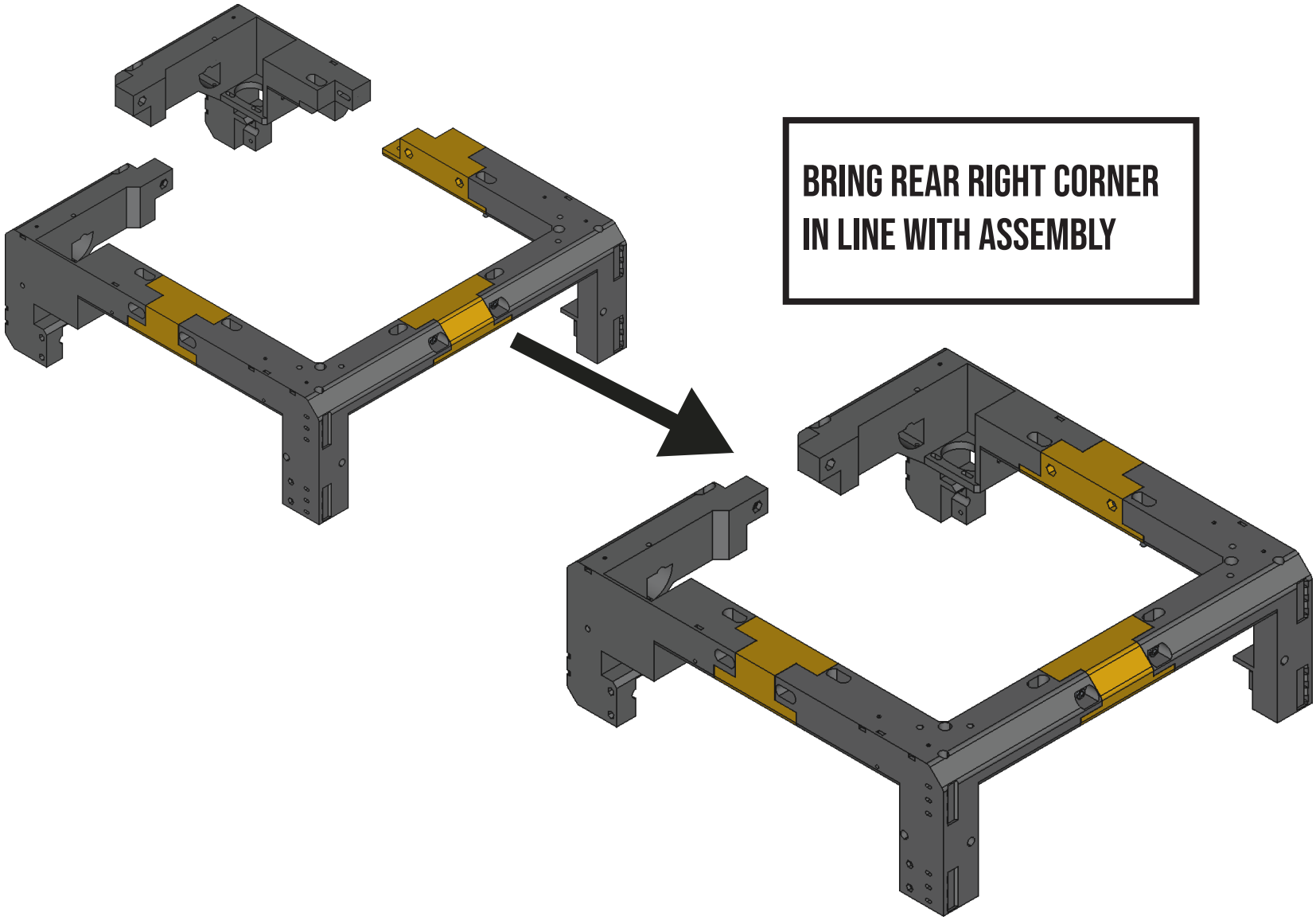
TOP FRAME ASSEMBLY



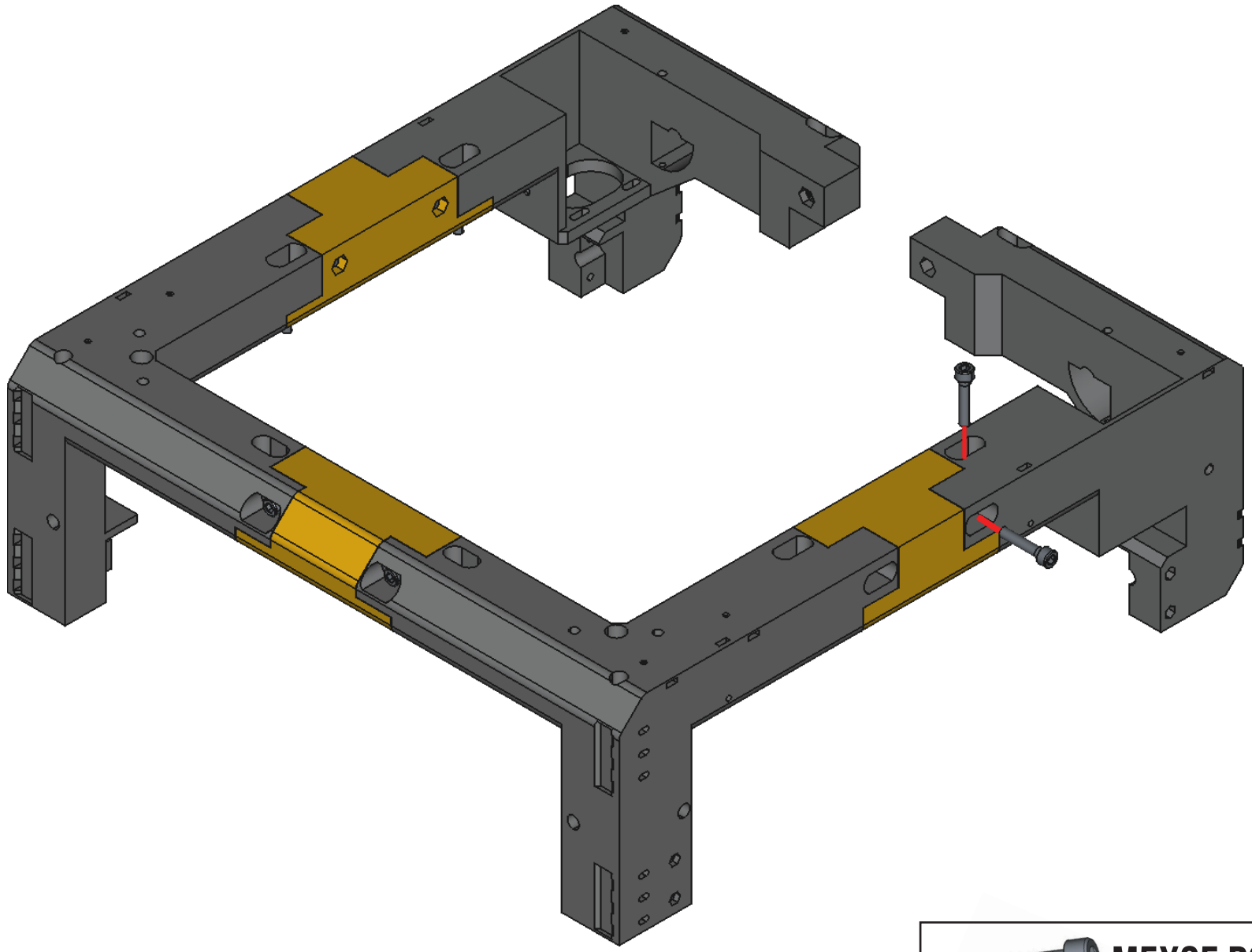
PUT THE M5 HEX NUT INTO THE TOP REAR RIGHT CORNER AS SHOWN

M5 HEX NUT

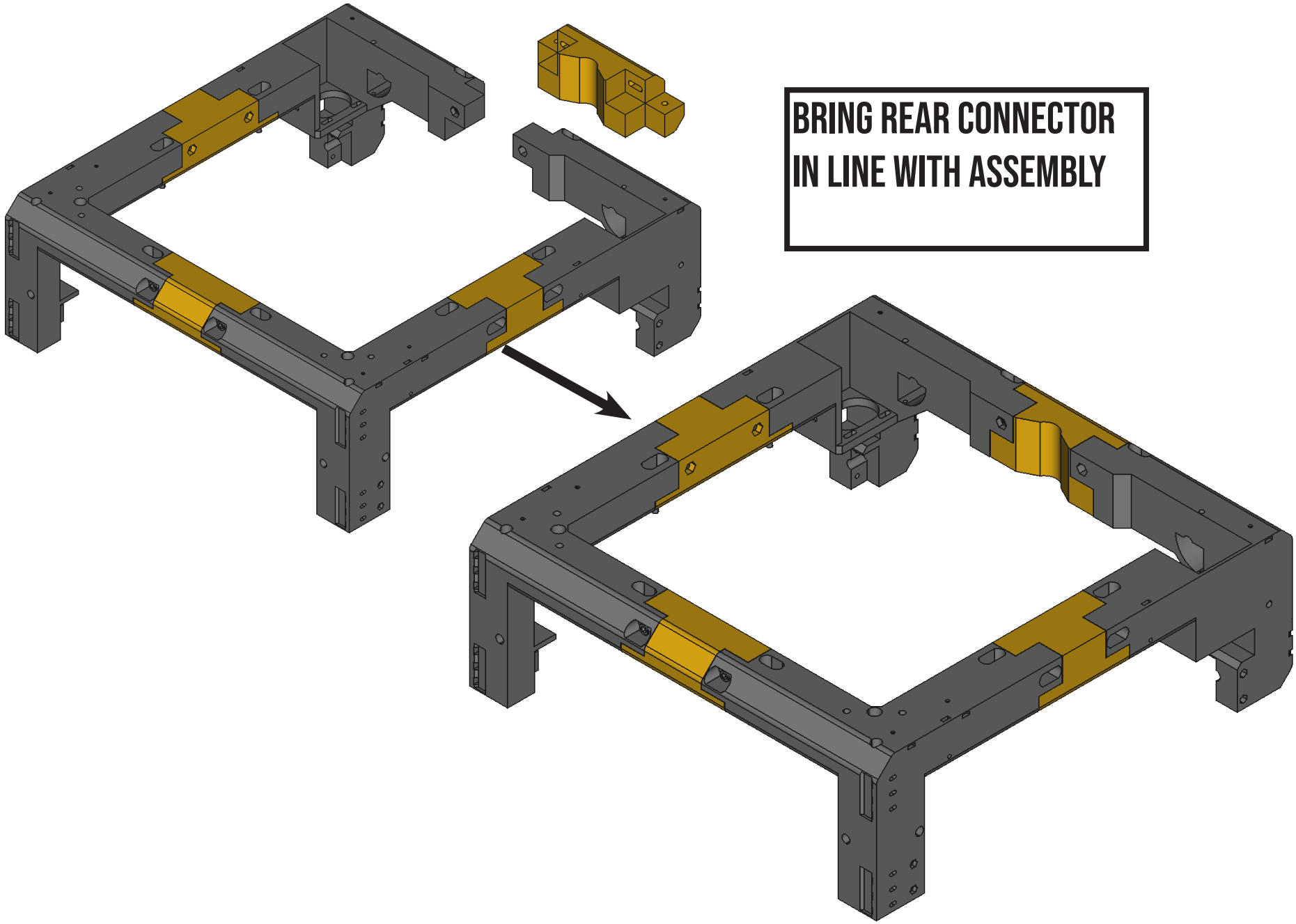
TOP FRAME ASSEMBLY



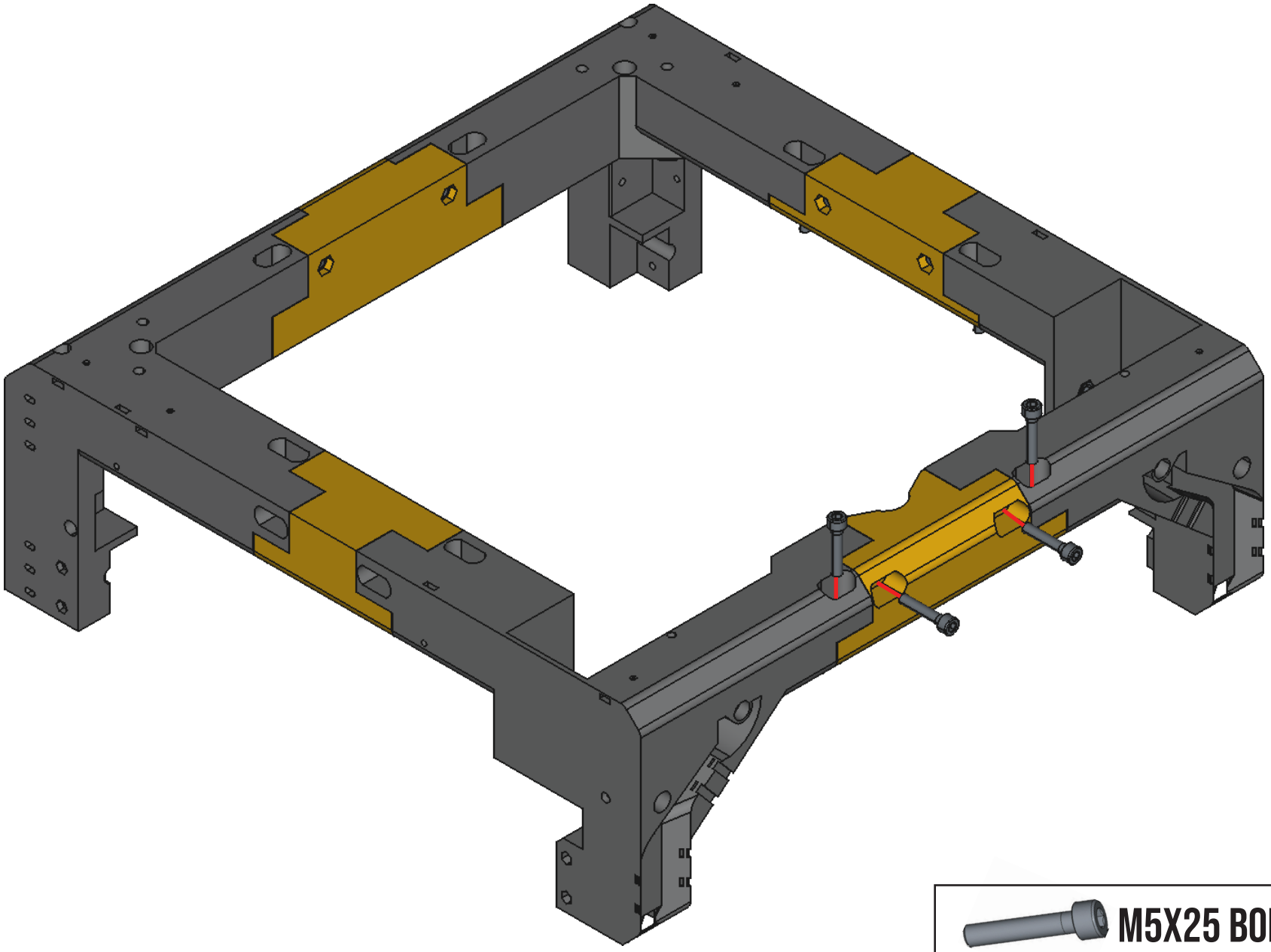
TOP FRAME ASSEMBLY



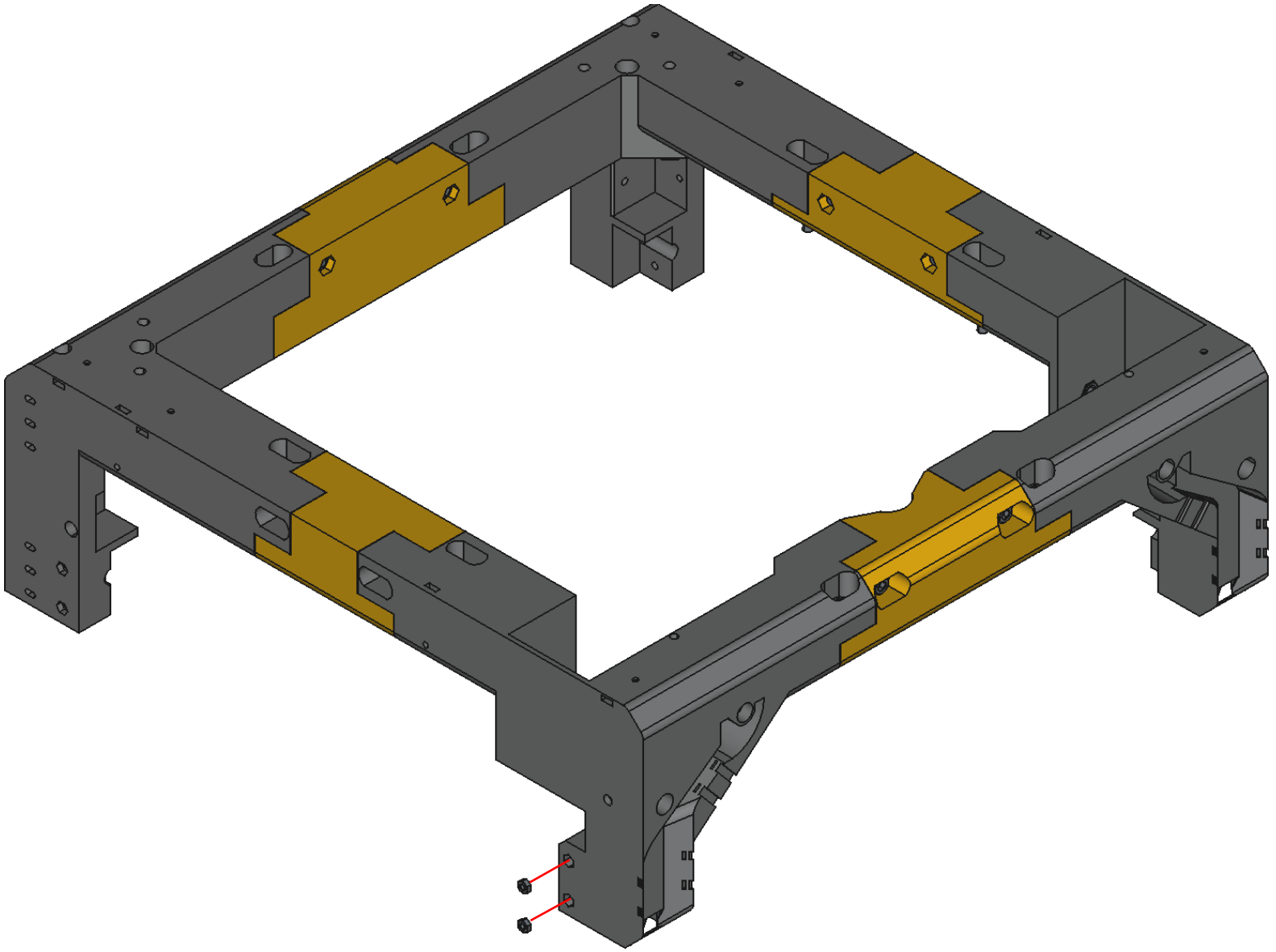
TOP FRAME ASSEMBLY



TOP FRAME ASSEMBLY

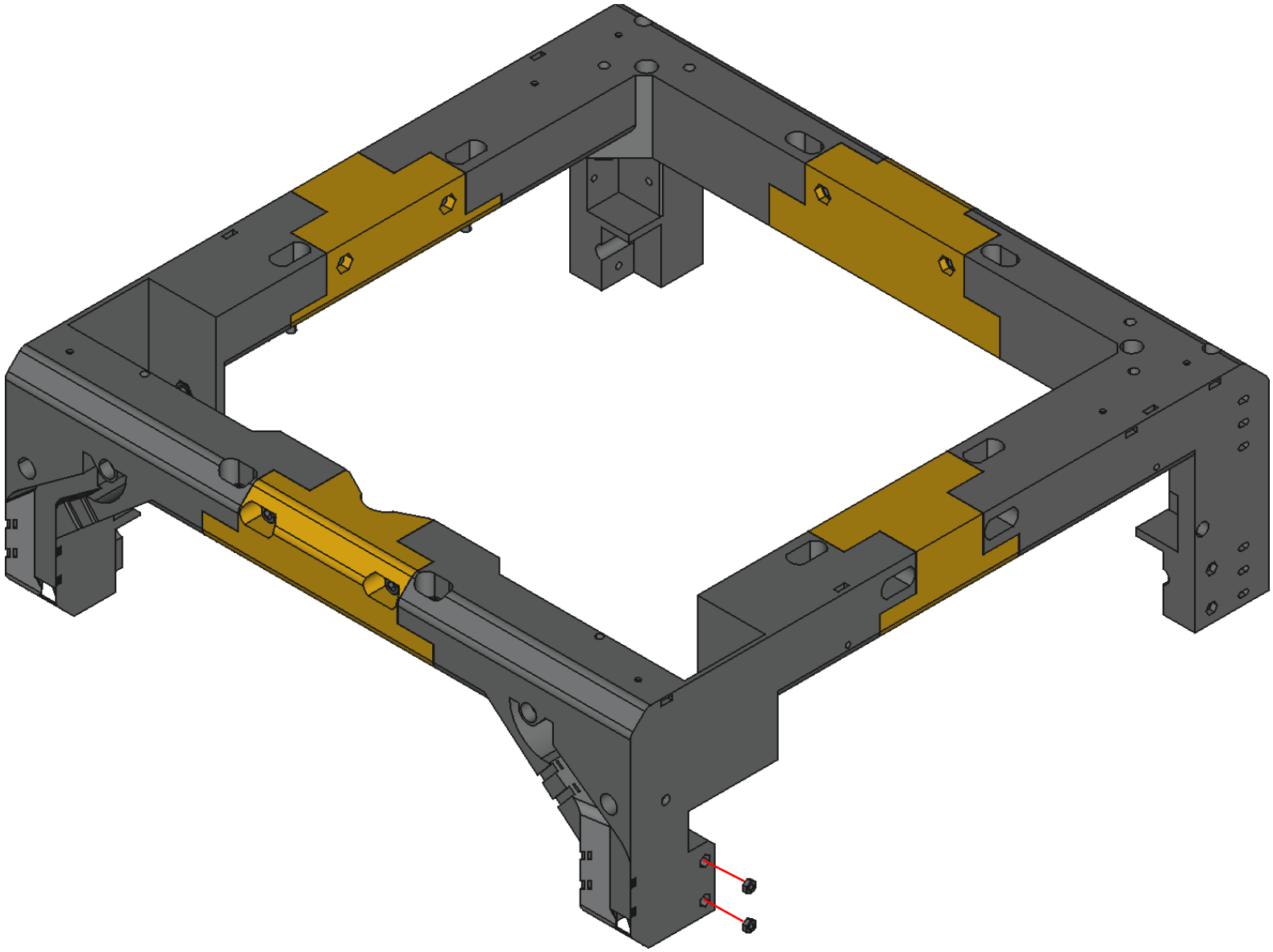


TOP FRAME ASSEMBLY



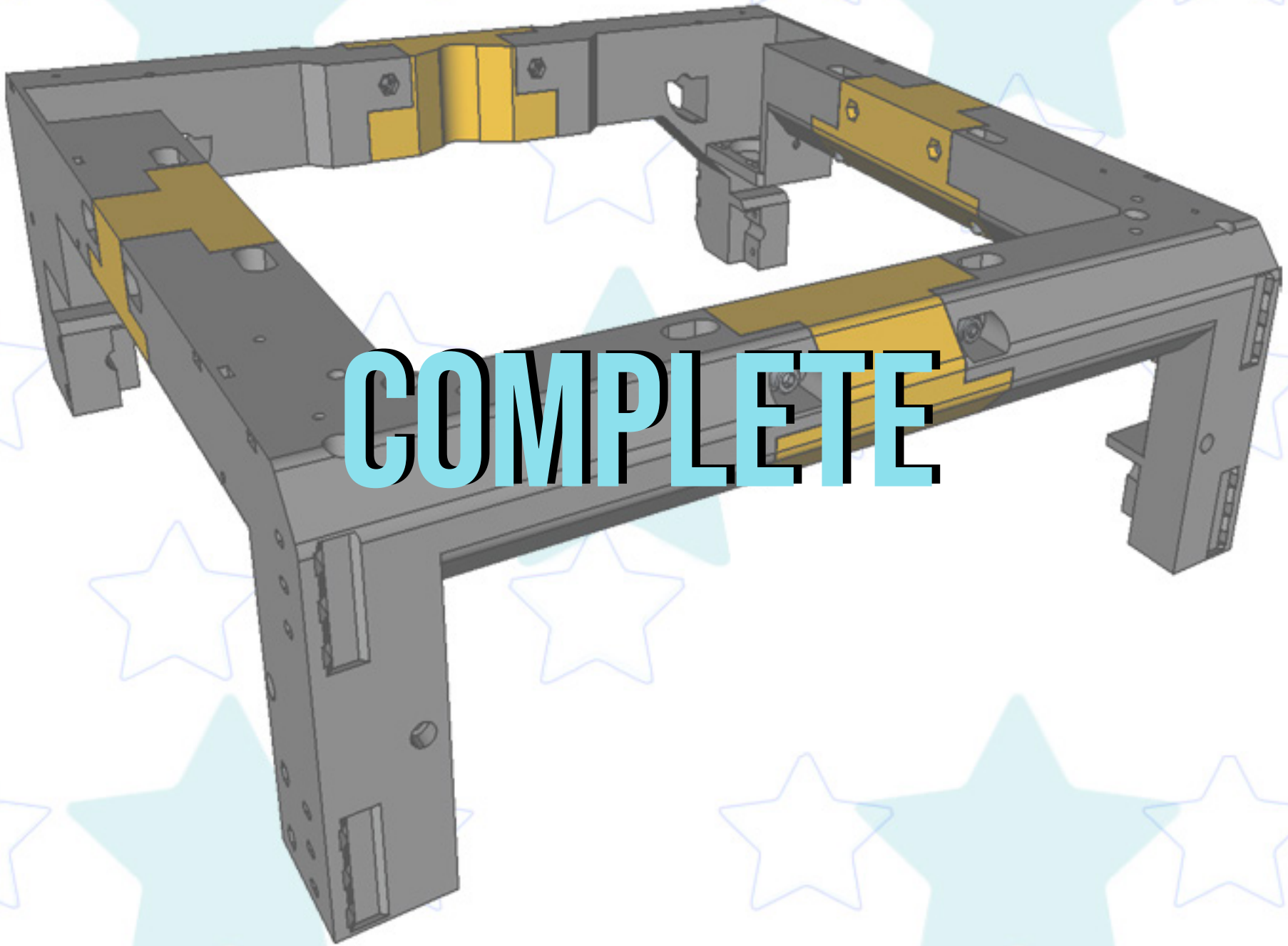
M3 HEX NUT

TOP FRAME ASSEMBLY



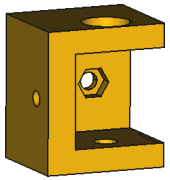
M3 HEX NUT

TOP FRAME ASSEMBLY



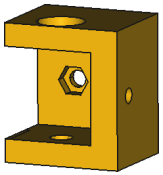
COMPLETE

X/Y GANTRY & MOTION COMPONENTS



X1

RIGHT IDLER CARTRIDGE

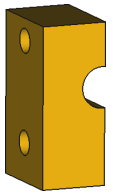


X1

LEFT IDLER CARTRIDGE

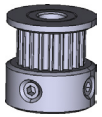
X16

F695 BEARING



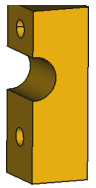
X2

FRONT ROD HOLDER



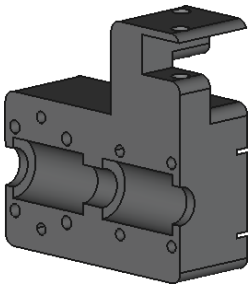
X2

GT2 MOTOR PULLEY
(20 TEETH)



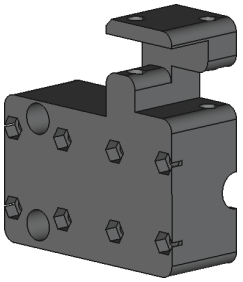
X2

BACK ROD HOLDER



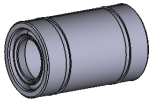
X1

Y-CARRIAGE LEFT



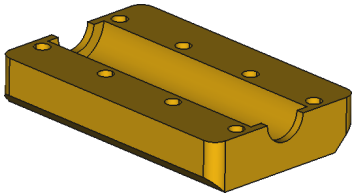
X1

Y-CARRIAGE RIGHT



X6

LM8UU LINEAR BEARING

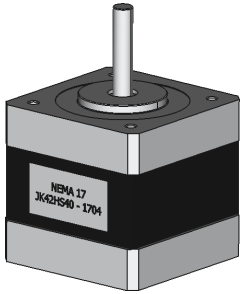


X2

Y CARRIAGE CLAMP

X14

M5 WASHER (OR PRECISION SHIM)

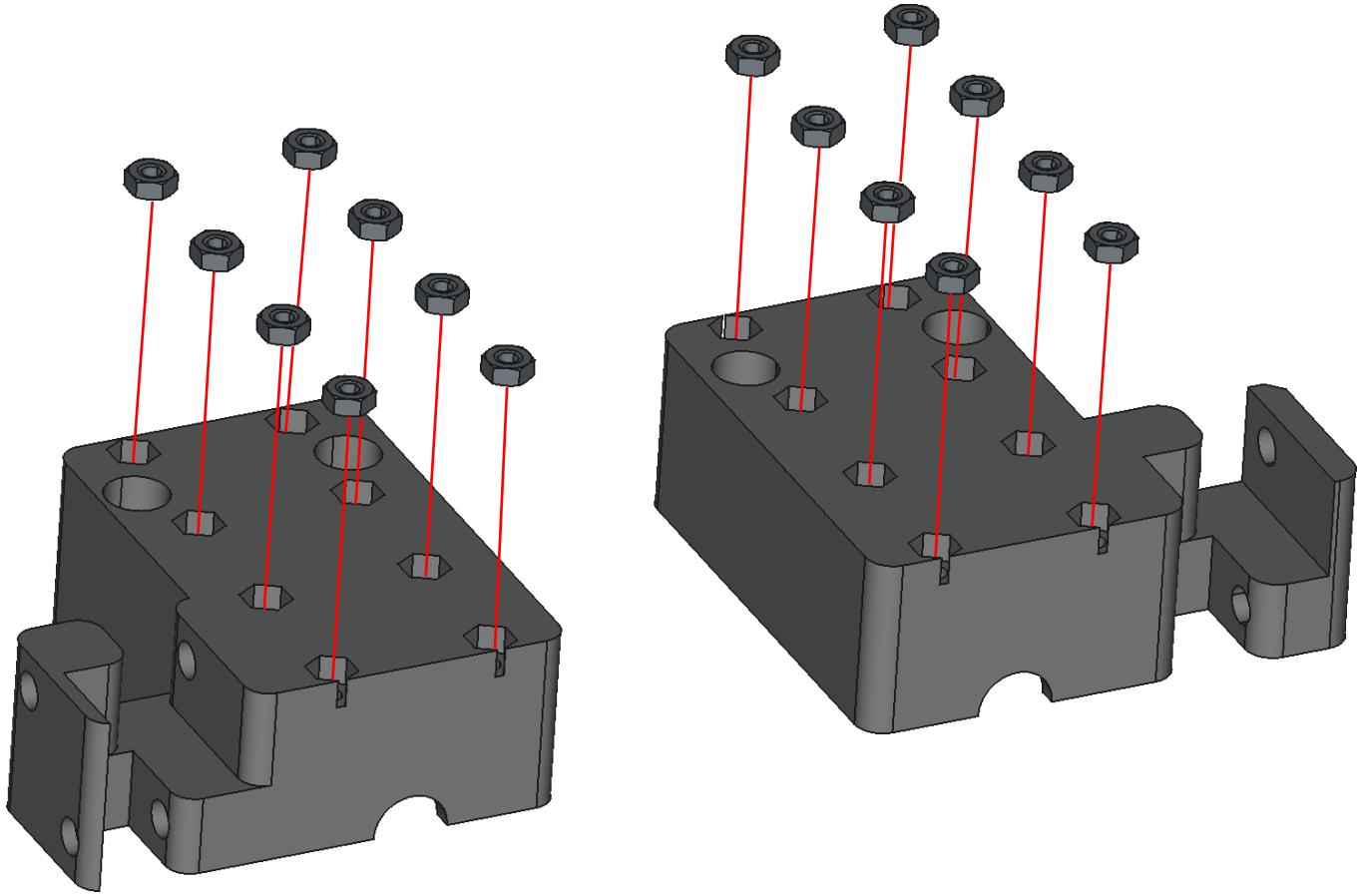


NEMA 17 STEPPER

X4

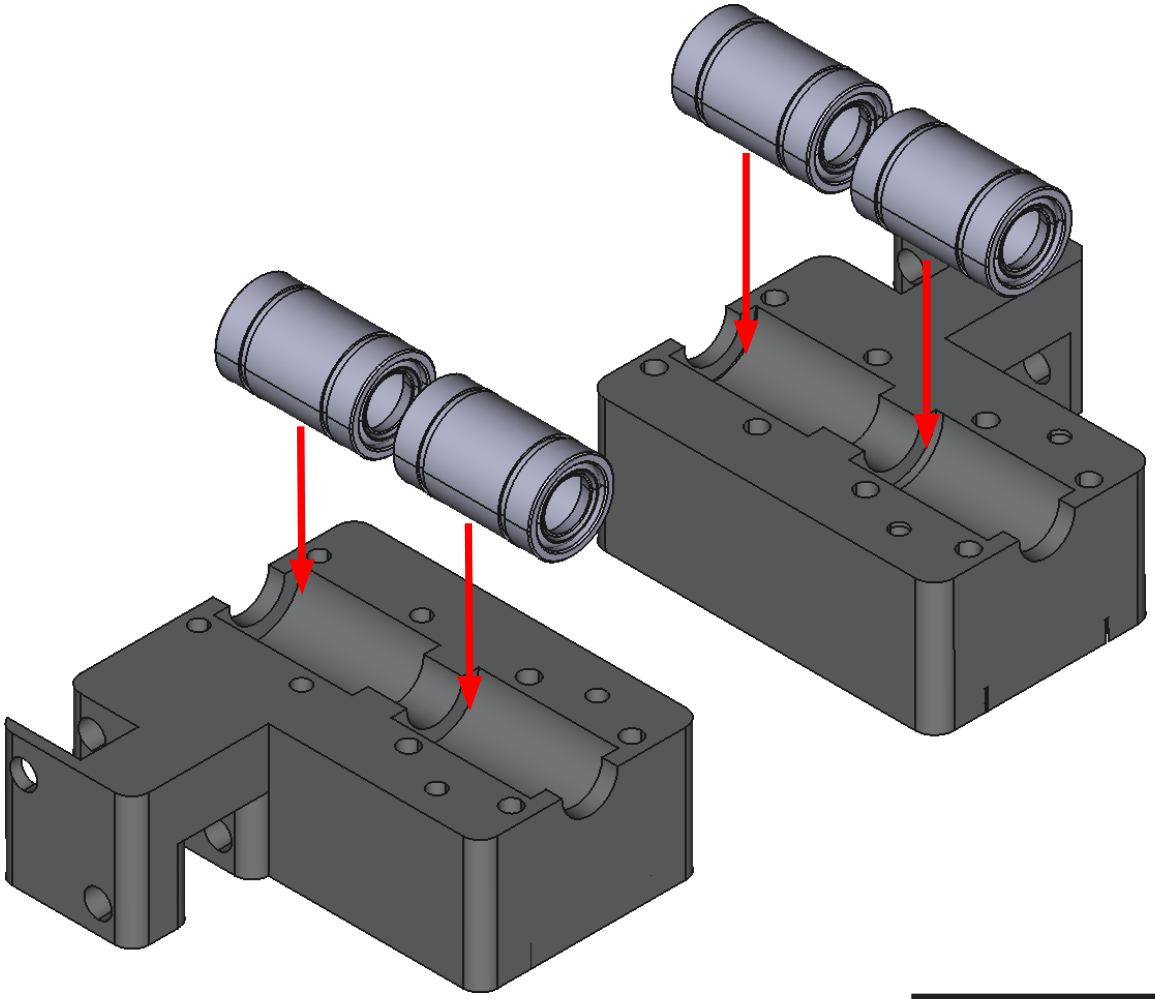
320MM LONG LINEAR ROD WITH 8 MM DIAMETER

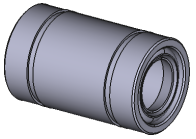
X/Y GANTRY & MOTION COMPONENTS



M3 HEX NUT

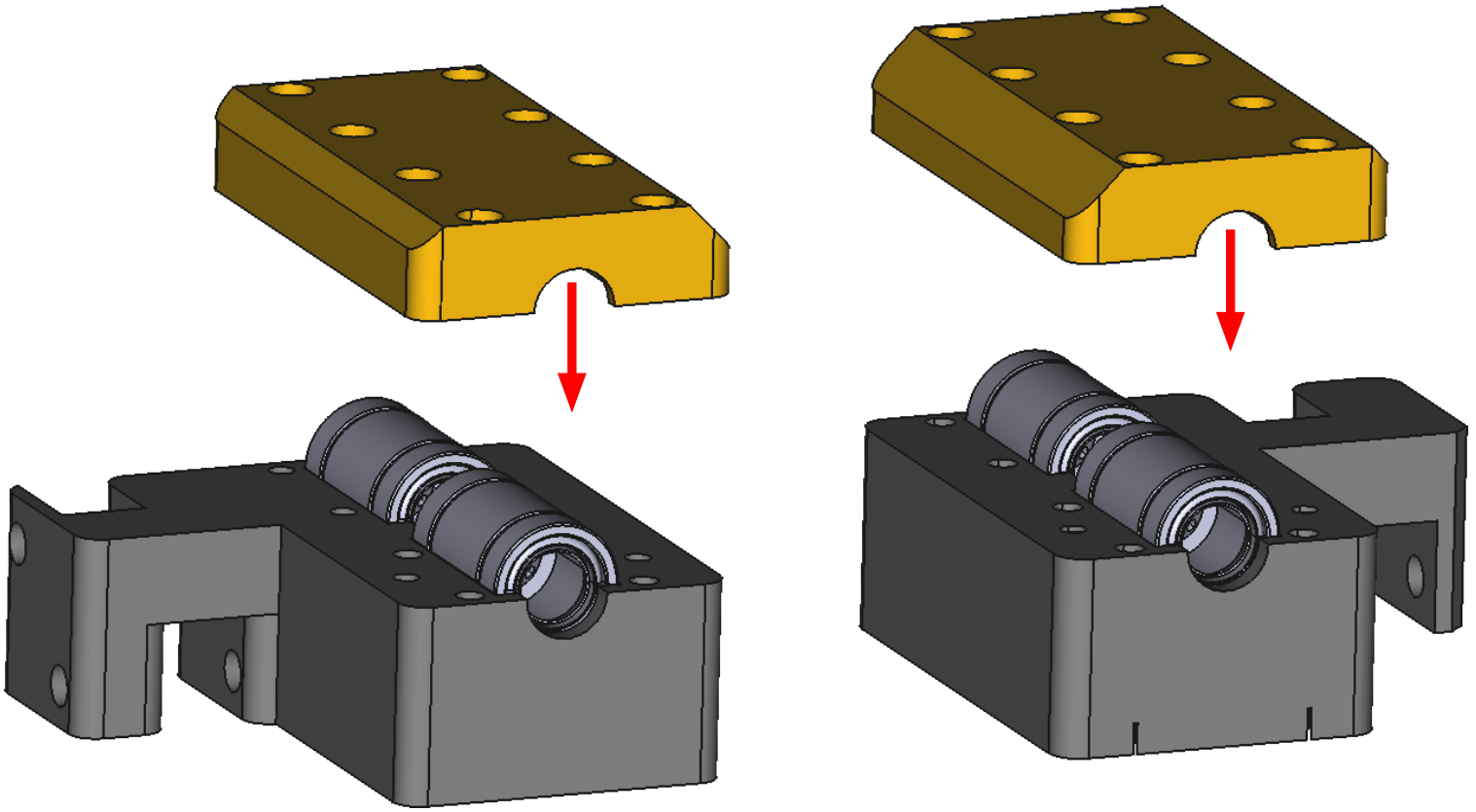
X/Y GANTRY & MOTION COMPONENTS



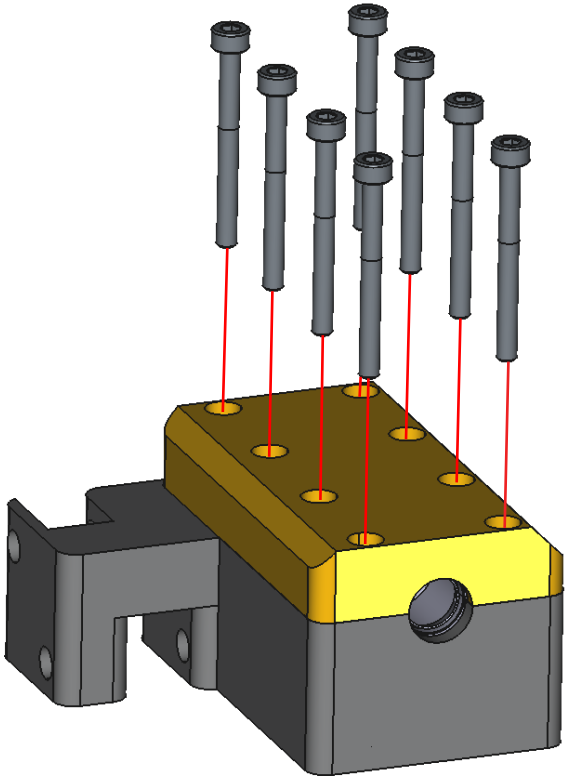


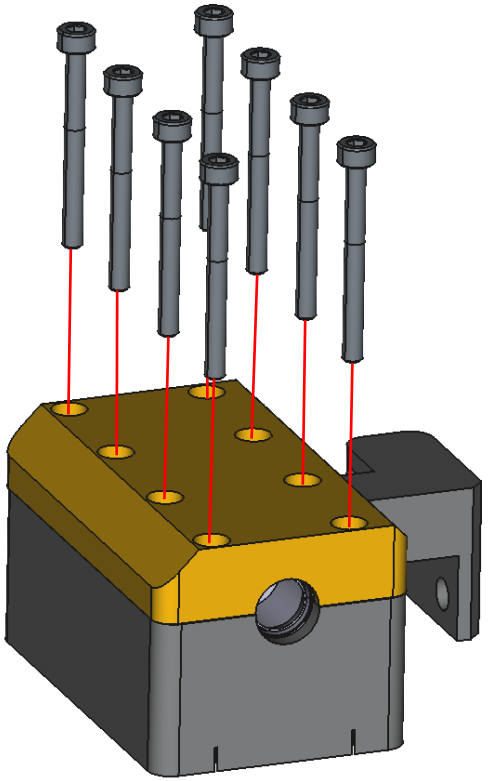
LM8UU BEARING

X/Y GANTRY & MOTION COMPONENTS



X/Y GANTRY & MOTION COMPONENTS

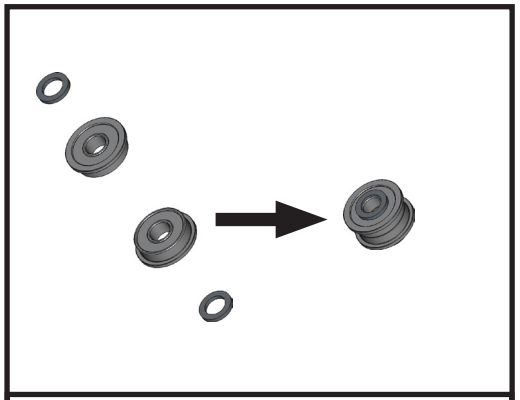




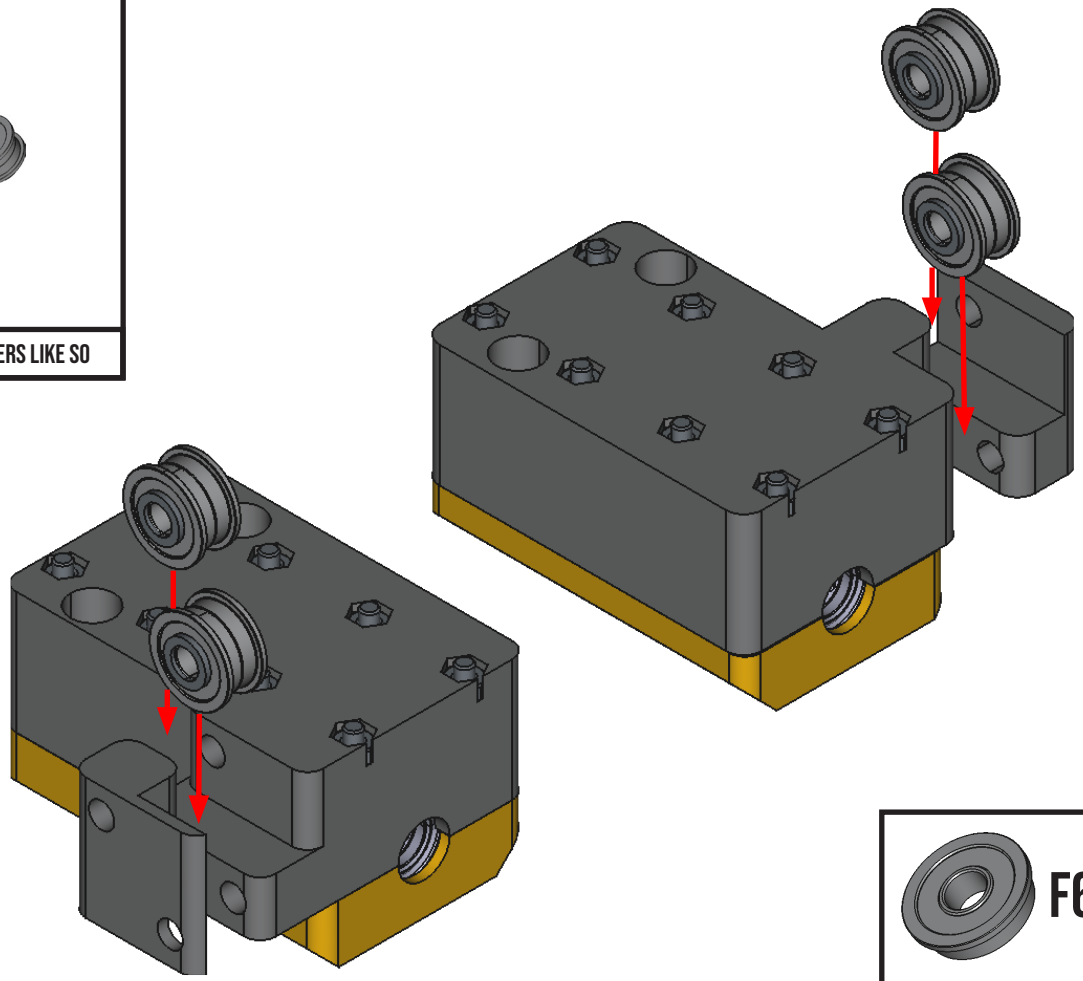
THE REASON FOR THE LARGE AMOUNT OF SCREWS IS JUST SO THAT THE LOAD IS ADJUSTABLE IN DIFFERENT PLACES ON THE BEARINGS.

M3X30 BOLT

X/Y GANTRY & MOTION COMPONENTS



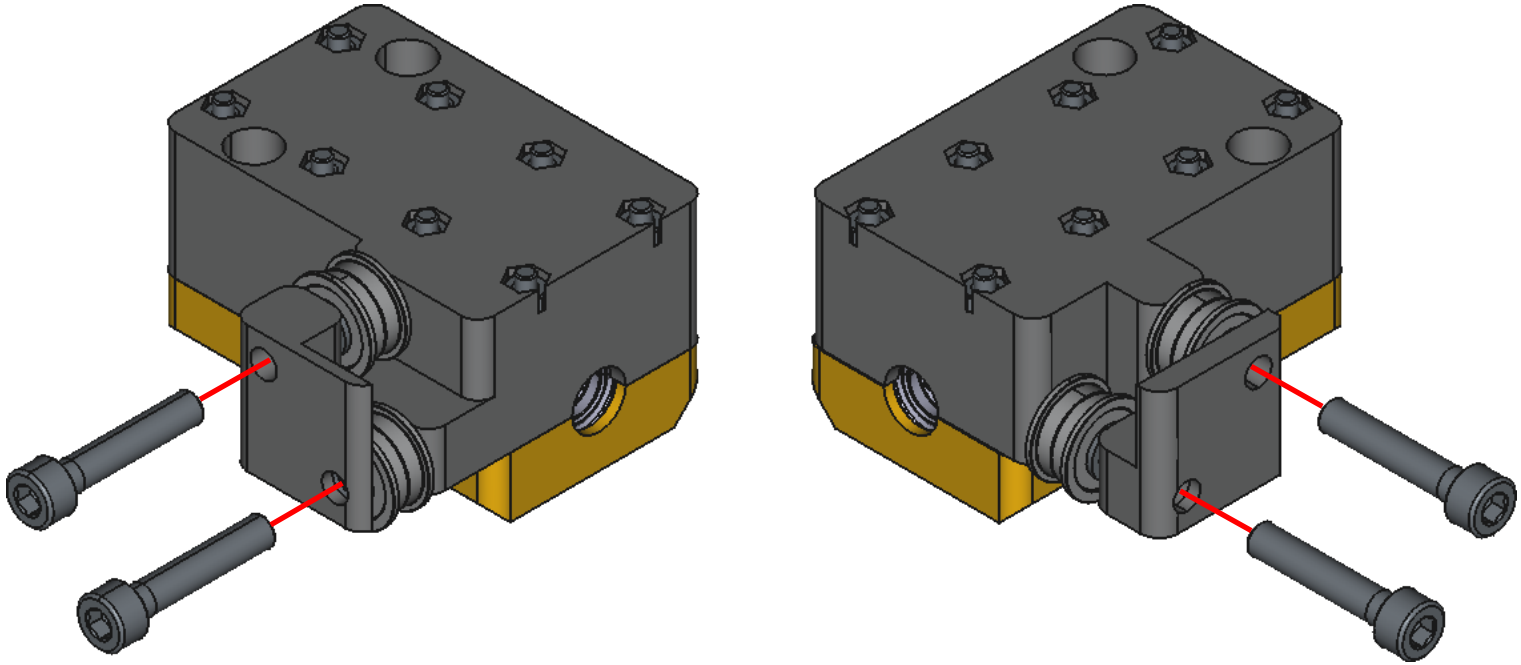
BRING WASHERS/SHIMS TOGETHER WITH IDLERS LIKE SO

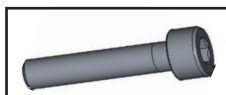


F695 BEARING

M5 WASHSER/SHIM

X/Y GANTRY & MOTION COMPONENTS





M5X25 BOLT