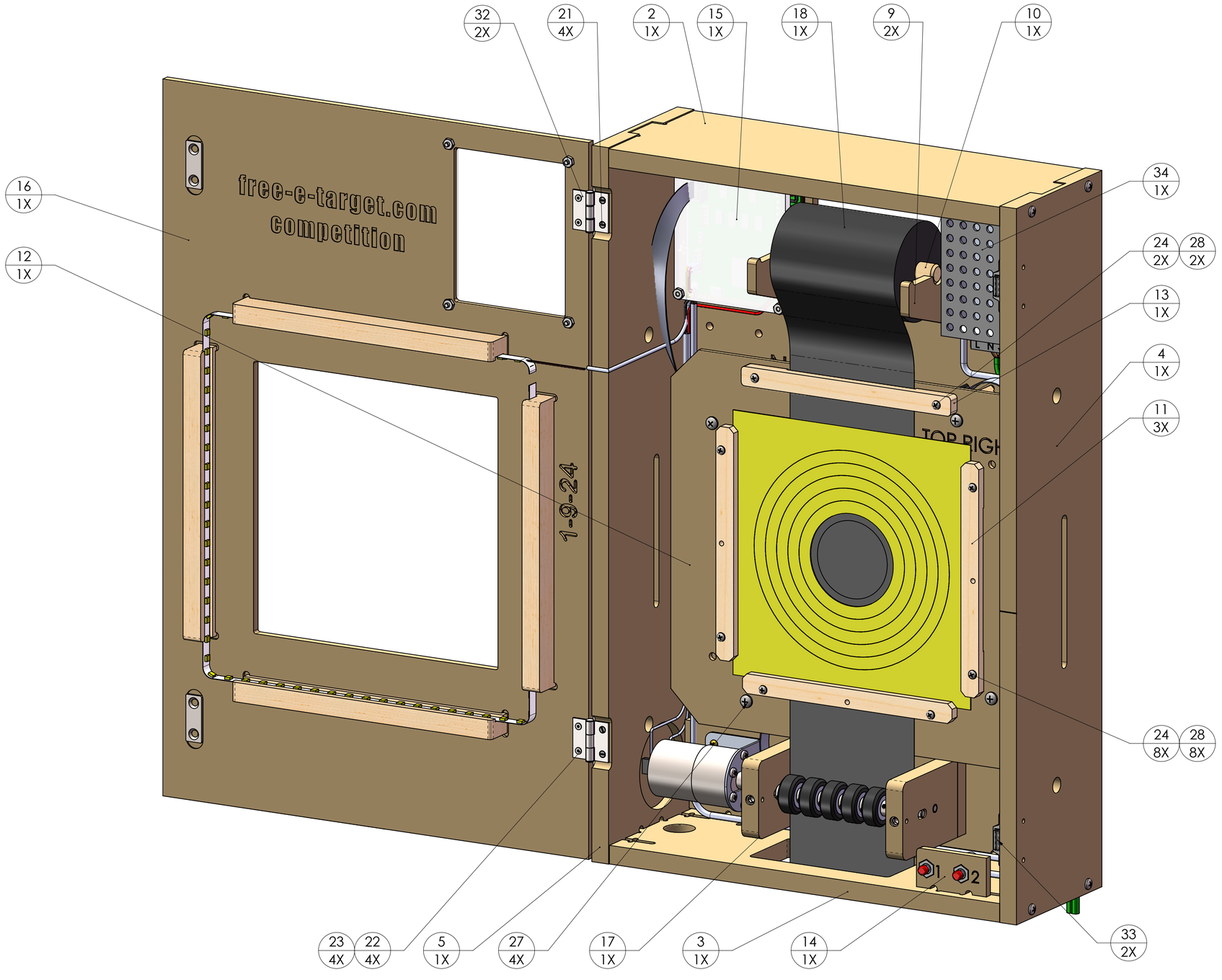
NOTES:

1. TO GAIN A BETTER UNDERSTANDING ON HOW TO ASSEMBLING THE freETarget COMPETITION KIT.
   VISIT Arme Vechi on YOUTUBE.com titled (freETarget COMPETITION KIT [EN].



ITEM NO.	QTY.	PART NUMBER	PART DESCRIPTION	MATERIAL	Cost	NOTE NO.
38	1	3000N SKU 8008047	10 METER ISSF TARGET	-	-	-
37	1	-	2 CONDUCTOR WIRE FOR LED	COPPER WIRE	$2.00	-
36	1		120V AC POWER CORD	-	$ 5.00	-
35	1		12V POWER WIRE	-	-	-
34	1	AL12V5AT	12 VOLT POWER SUPPLY 5A 60W	-	12.99	-
33	2	4096N11	Magnetic Latch	Plastic	$ 3.09	-
32	2	1597A12	HINGE 1" X 1/2"	---	$2.75	-
31	1		SENSOR CABLE ASSEMBLY		freETarget	-
30	4	---	No 8-32 HEX NUT	SS 18-8		-
29	22	---	No 6-32 HEX NUT	SS 18-8		-
28	32	---	No 4-40 HEX NUT	SS 18-8		-
27	4	---	NO.8-32 x1.375L, PAN HD	SS 18-8		-
26	22		NO.6-32 x 0.875L PAN HD	SS 18-8		-
25	4	---	NO. 4-40 x 1.250 L, PAN HD	SS 18-8		-
24	16	---	NO. 4-40 x .75L, PAN HEAD	SS 18-8	-	-
23	4	---	No 2-56 HEX NUT	SS 18-8		-
22	4	---	No 2-56 x 0.500 FLAT HEAD 82 DEG	SS 18-8		-
21	4	90006A079	#2 X 10mm WOOD SCREW	Steel		-
20	4	KY-038	TARGET SENSOR PC BOARD	-	freETarget	-
19	1	CURCUIT	MAIN CURCUIT BOARD ESS	-	230.00	-
18	1	B08842CCBF #157 Paper	WITNESS PAPER ROLL	CONSTRUCTION PAPER	14.99	-
17	1	FET-045	PAPER TRANSPORT ASSY	-	$ 95.00	-
16	1	FET-022	6mm FRONT PANEL ASSEMBLY	-	-	-
15	1	FET-020	CLEAR PCB COVER	1/4" POLYCARBONATE	$ 2.50	-
14	1	FET-019	MULTI FUNTION SWITCH ASSEMBLY	-		-
13	1	FET-017	WITNESS PAPER TOP GUIDE	Maple	$.50	-
12	1	FET-016	FACE PLATE	PLYWOOD	$ 3.00	-
11	3	FET-014	TARGET HOLDER	Maple	$ 1.00	-
10	1	FET-013	1/2" DOWEL	Pine	$ 1.00	-
9	2	FET-012	WITNESS PAPER MOUNT	PLYWOOD	$ 1.00	-
8	3	FET-011	CABLE GUIDE	PLYWOOD	$ 1.00	-
7	2	FET-010	SENSOR COVER	PVC Rigid	-	-
6	4	FET-009	SENSOR MOUNT	Maple	$ 1.00	-
5	1	FET-008	LEFT SIDE PANEL	PLYWOOD	$ 2.25	-
4	1	FET-007	RIGHT SIDE PANEL	PLYWOOD	$ 2.25	-
3	1	FET-006	BOTTOM PANEL	PLYWOOD	$ 1.50	-
2	1	FET-005	TOP PANEL	PLYWOOD	$ 1.50	-
1	1	FET-004	BACK PANEL	PLYWOOD	$3.00	-

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
INTERPRET GEOMETRIC TOLERANCING PER:
MATERIAL
-
FINISH

	NAME	DATE
DRAWN	J. SNAPP	1 JAN 2025
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

COMMENTS:

FET-000 | freETarget
NEXT ASSY | USED ON
APPLICATION

freETarget

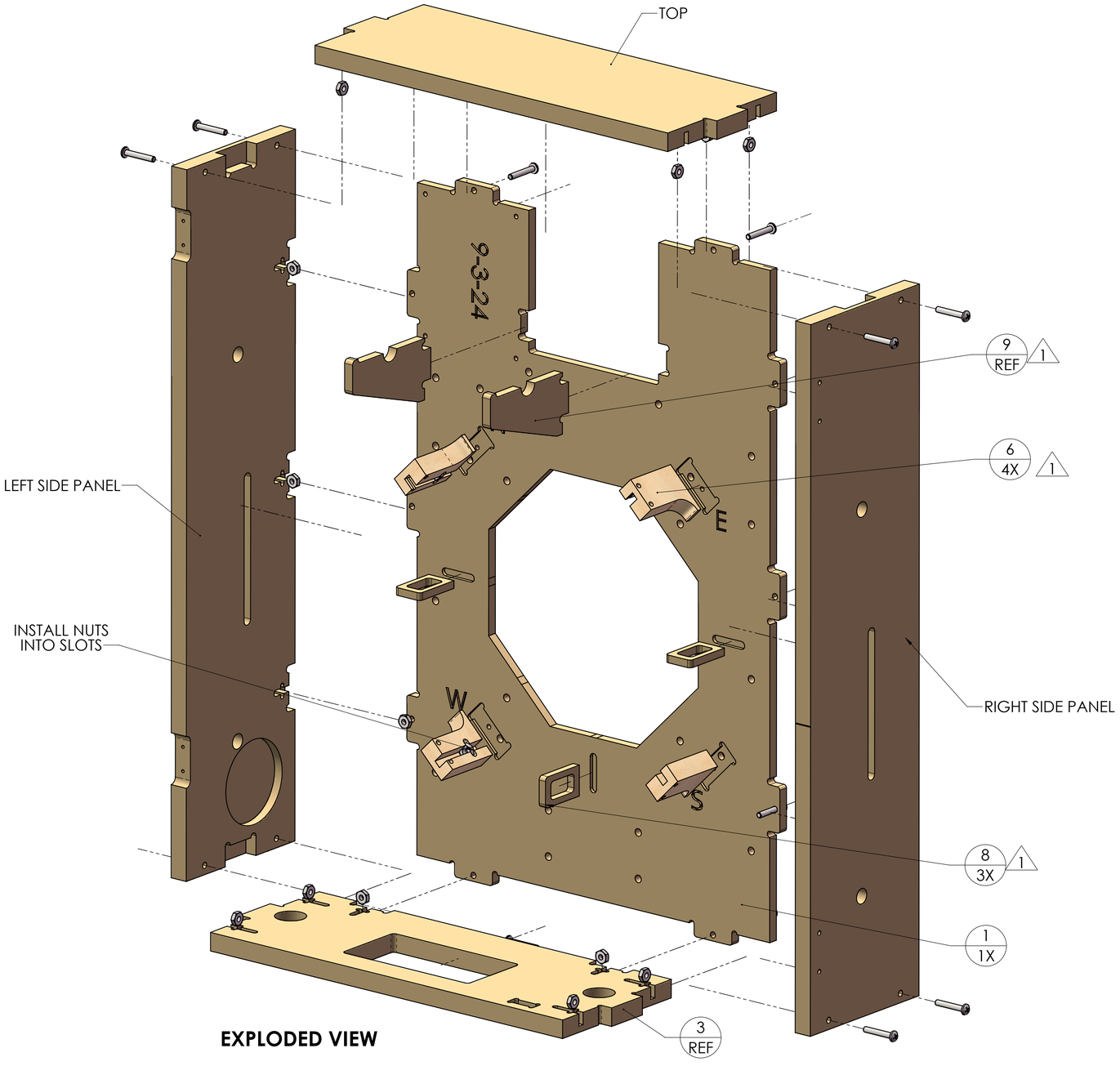
TITLE:
COMPETITION TARGET ASSEMBLY

SIZE	DWG. NO.	REV
D	FET-000	
SCALE: 1:4	7.12	SHEET 1 OF 15

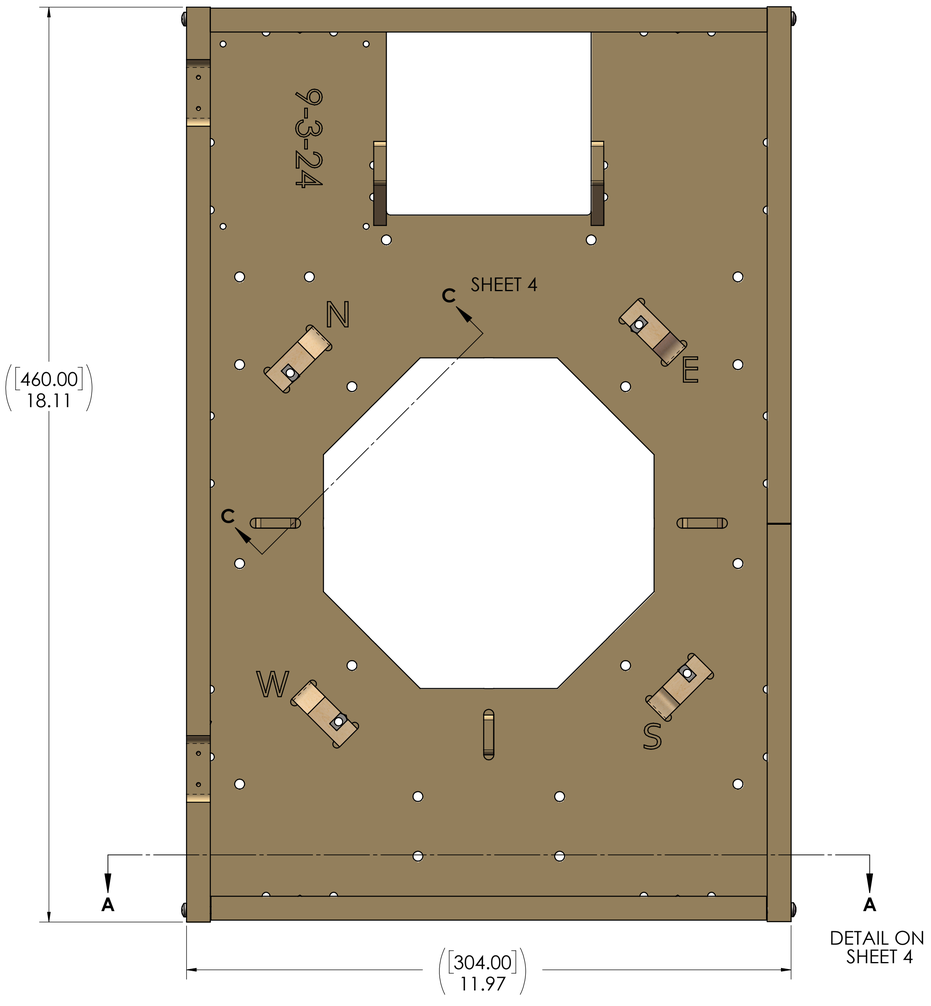
REV
FET-000
D

NOTES:

1. USE AN ANGLE SQUARE AGAINST EACH ITEM AS YOU GLUE ITEMS TO THE BACK PANEL



EXPLODED VIEW



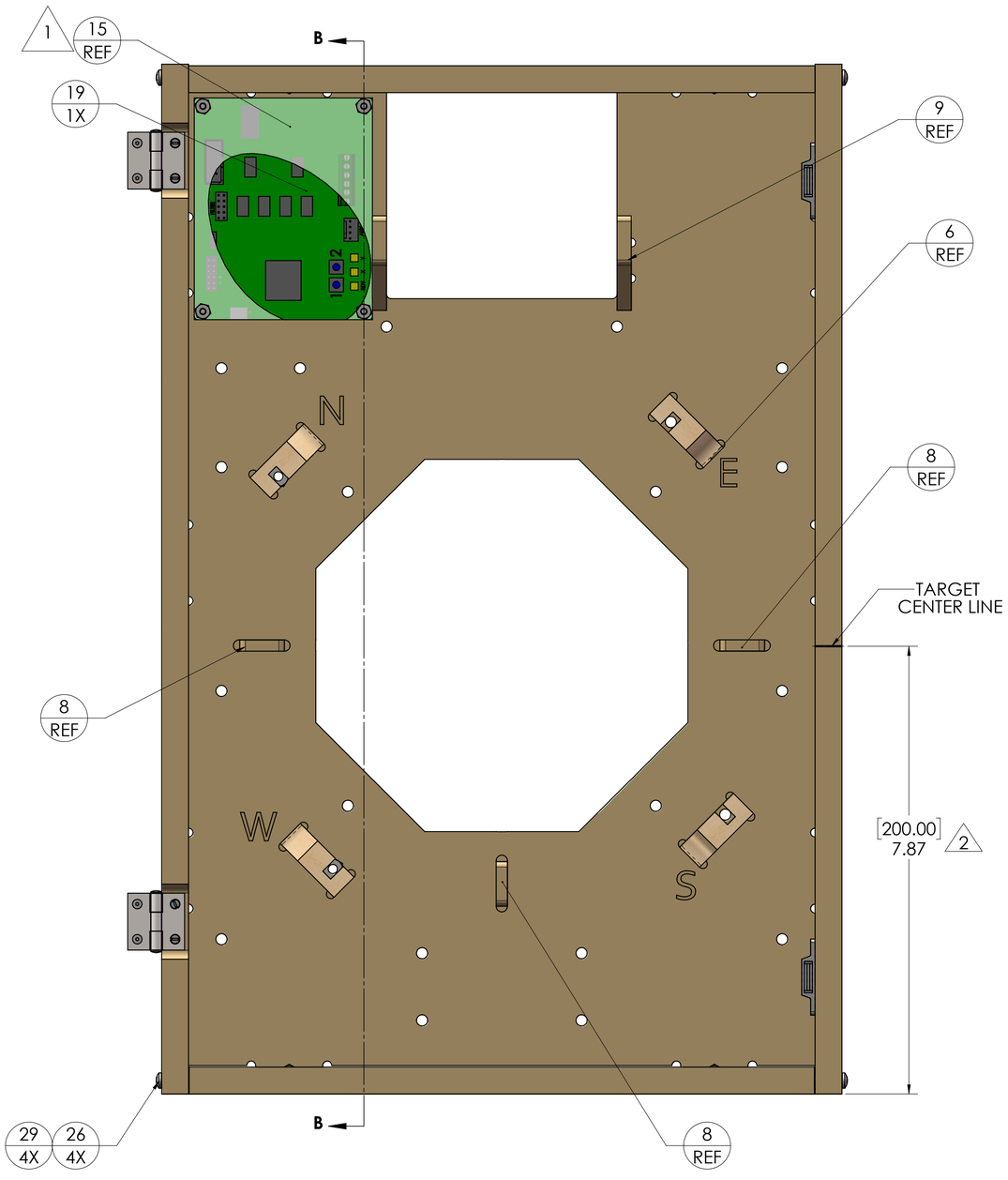
DETAIL ON
SHEET 4

SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:4	WEIGHT: 7.12	SHEET 2 OF 15

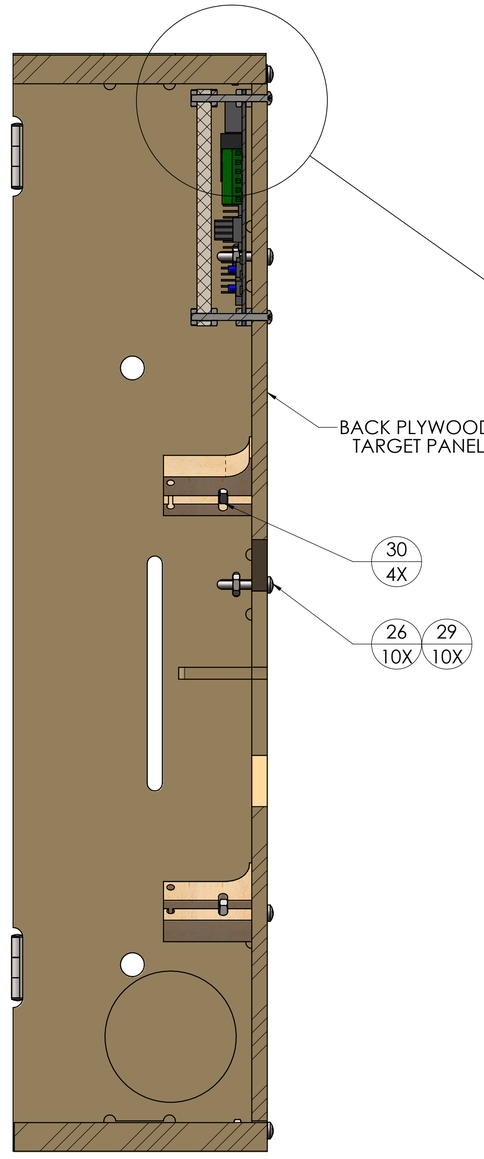
NOTES:

1. ITEM #15 FET-020 IS A POLYCARBONATE COVER DESIGNED FOR PROTECTING THE PC BOARD INSTALLED IN THE EVENT THE BUILDER CHOOSES NOT TO BUILD OR INSTALL A FRONT PANEL WITH LED LIGHT STRIP, THIS WILL SHIELD THE ELECTRONICS FROM STRAY PELLETS.

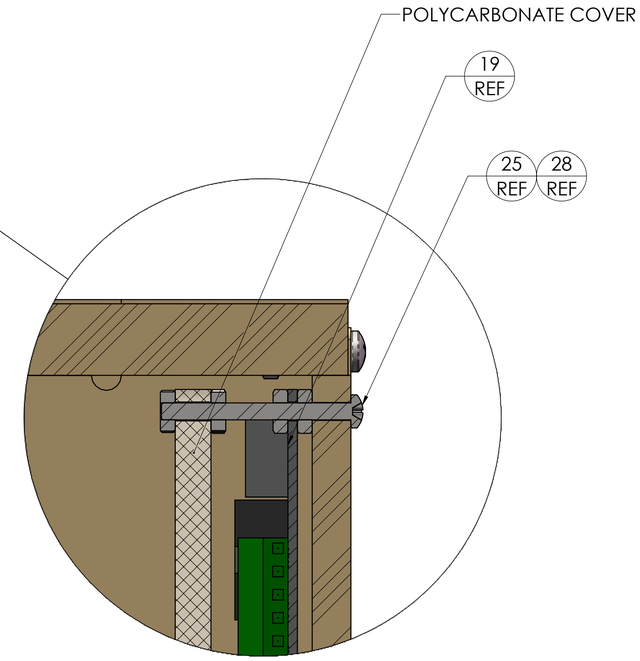
2. THE SMALL NOTCH CUT INTO THE EDGE OF THE RIGHT SIDE PANEL IS CORRECT DISTACNCE FROM THE BASE TO THE ℄ OF THE TARGET.



MOUNTING PC BOARD AND HARDWARE



SECTION B-B

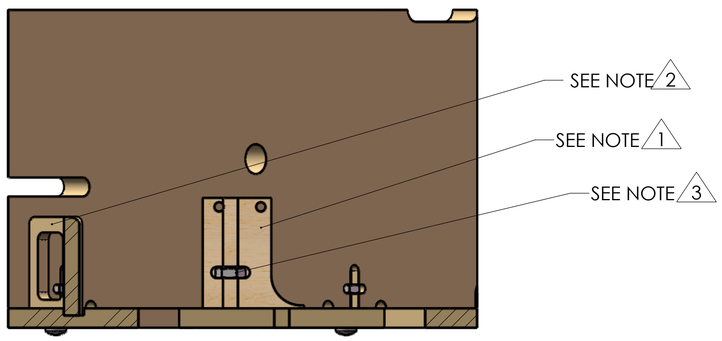


DETAIL D

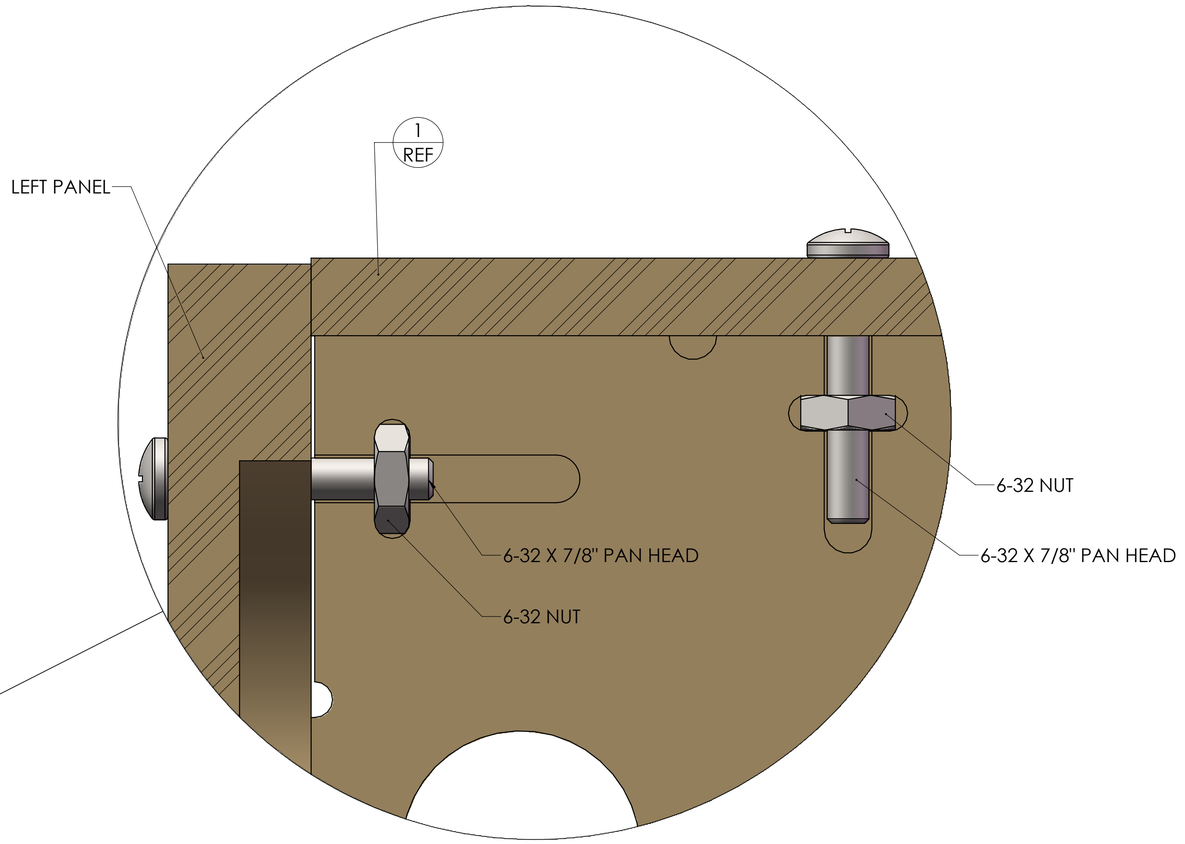
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:4	WEIGHT: 7.12	SHEET 3 OF 15

NOTES:

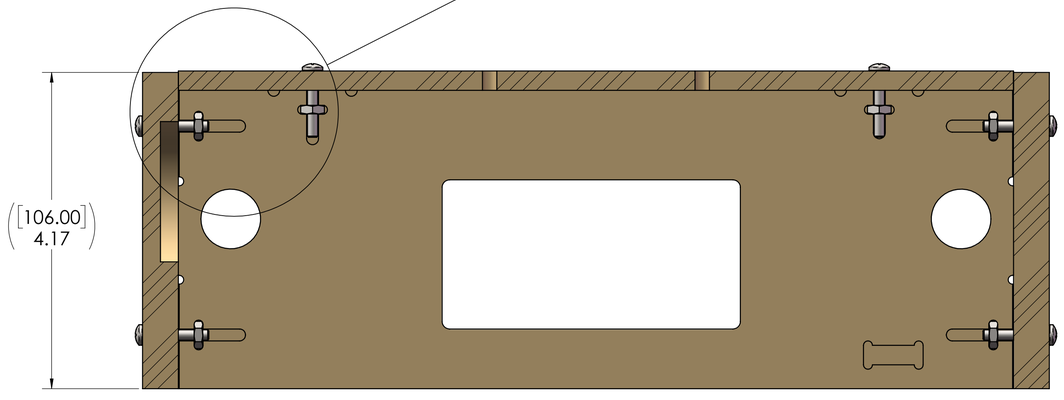
1. SENSOR MOUNTS ARE GLUED IN AS SHOWN . HOLES ARE PROVIDED SO BUILDER CAN USE ADDITIONAL SCREWS.
2. CABLE GUIDES ARE GLUED IN ONLY NO SCREW HOLES ARE PROVIDED.
3. INSTALL 4 8-32 NUTS INTO THE 4 SENSOR SUPPORTS.



SECTION C-C



DETAIL D

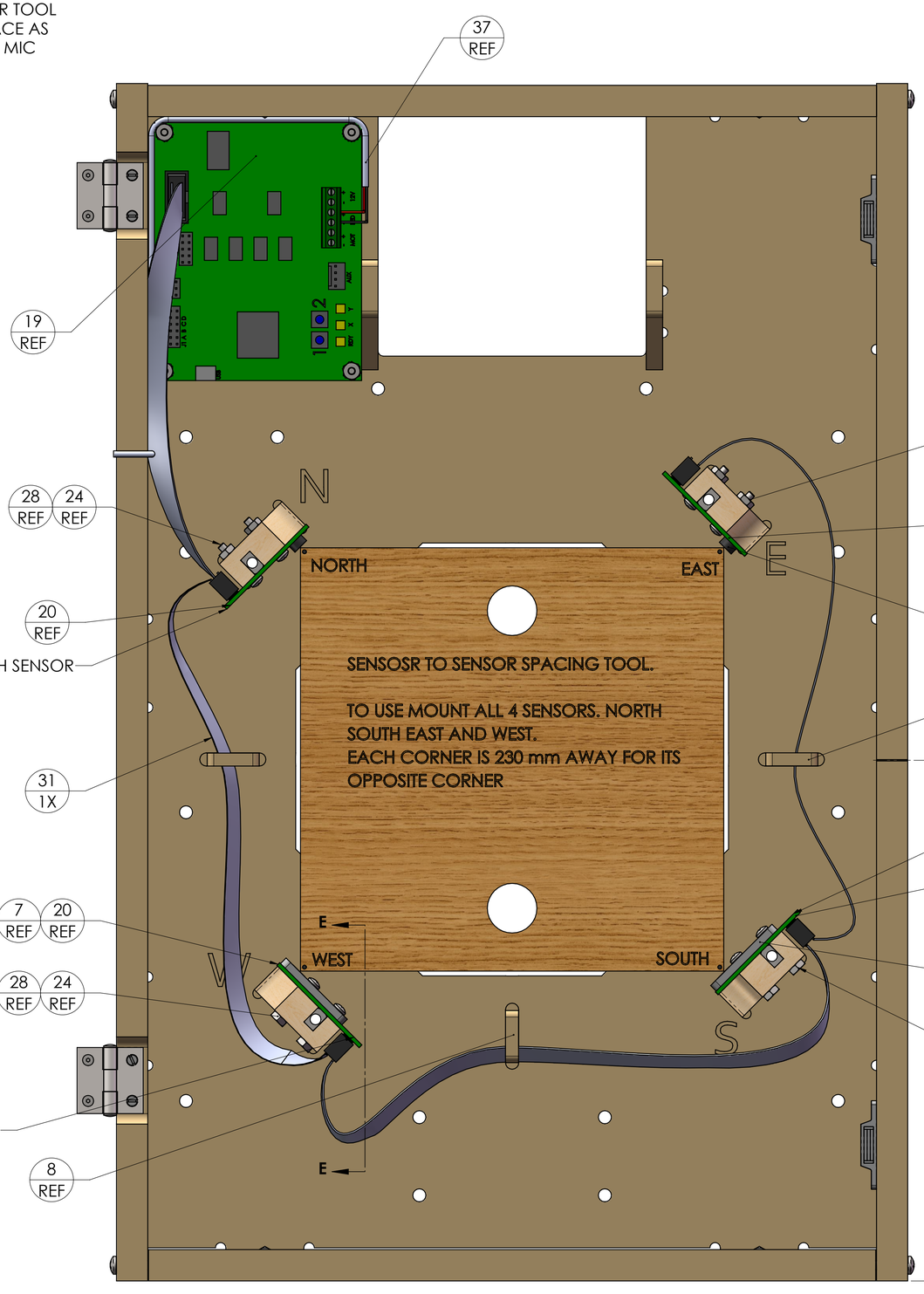


SECTION A-A

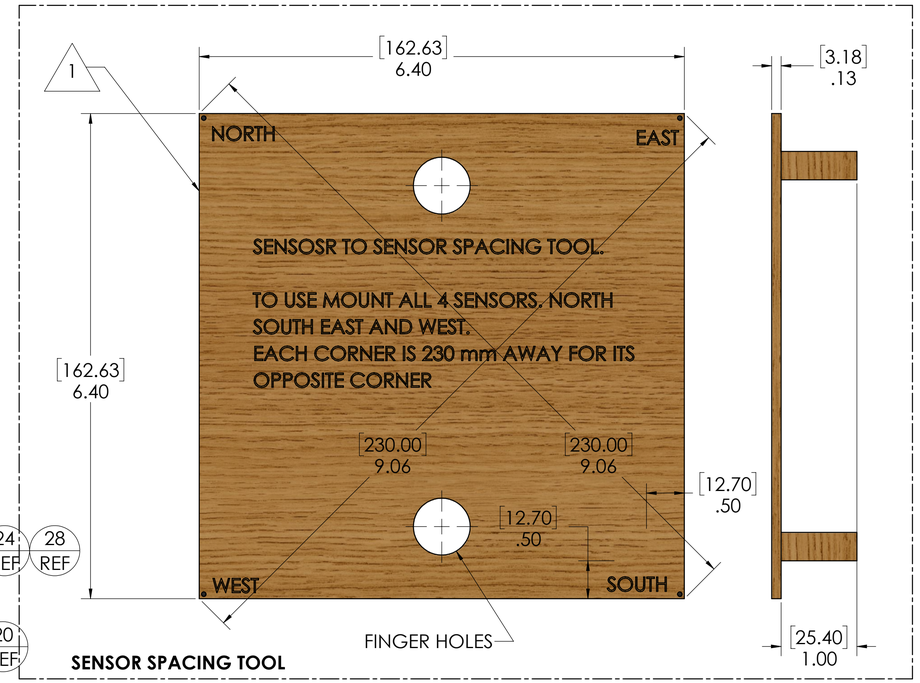
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:1	WEIGHT: 7.12	SHEET 4 OF 15

NOTES:

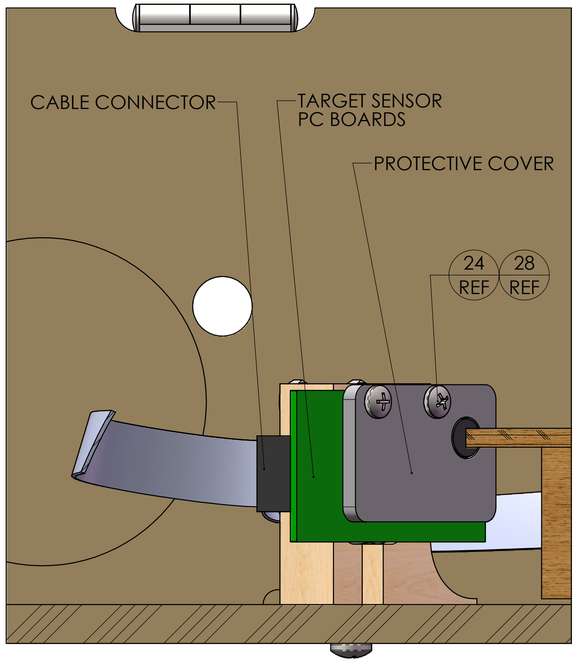
1. MAKE YOUR OWN SENSOR SPACER TOOL BY USING THE DRAWING AT RIGHT. PLACE AS SHOWN BELOW AND VARIFY THE EACH MIC IS SET TO THE CORRECT DISTANCE



SENSOR AND CABLE ASSEMBLY

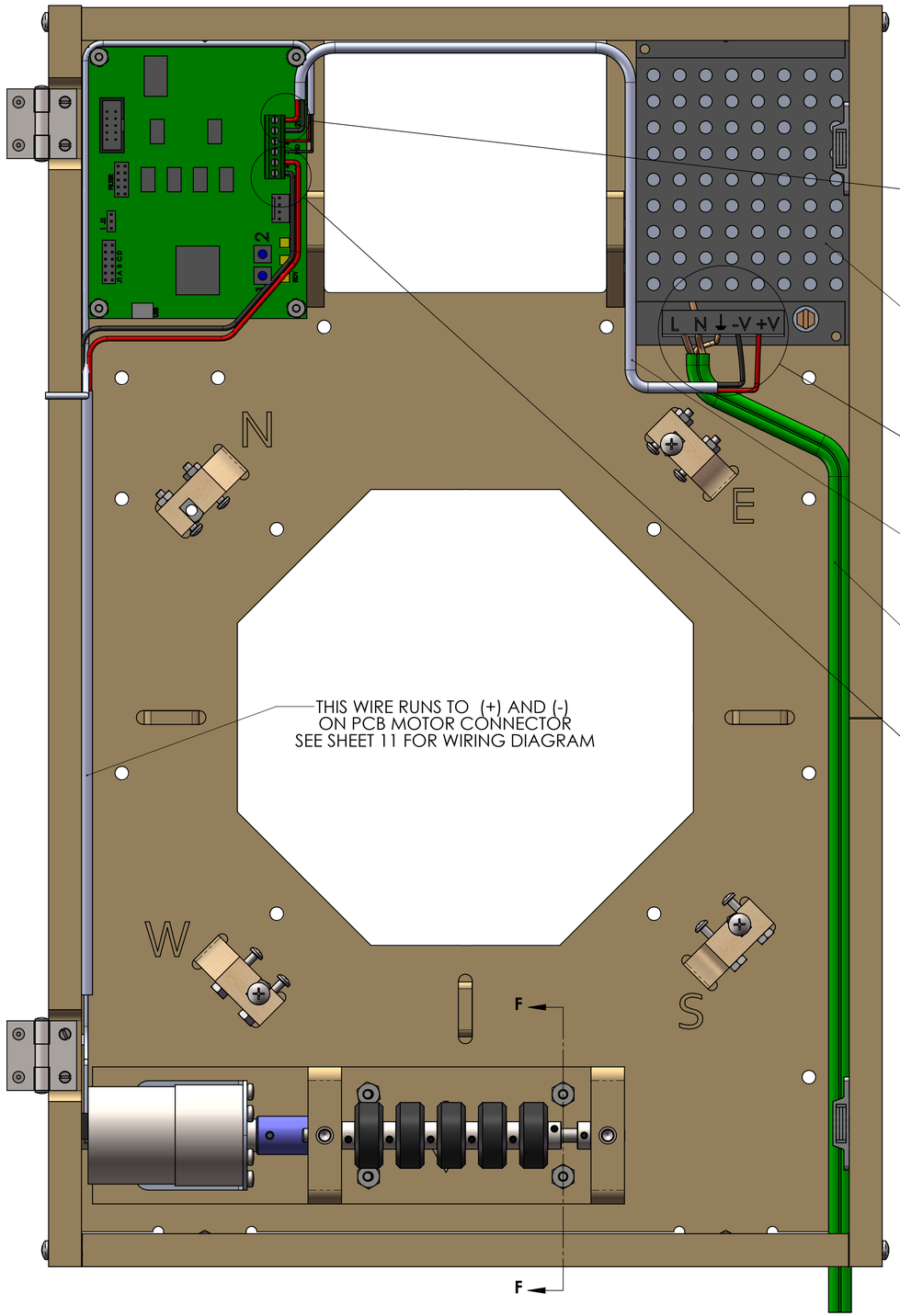


SENSOR SPACING TOOL

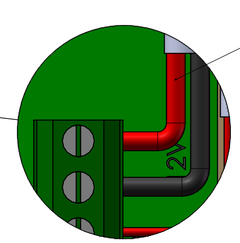


SECTION E-E

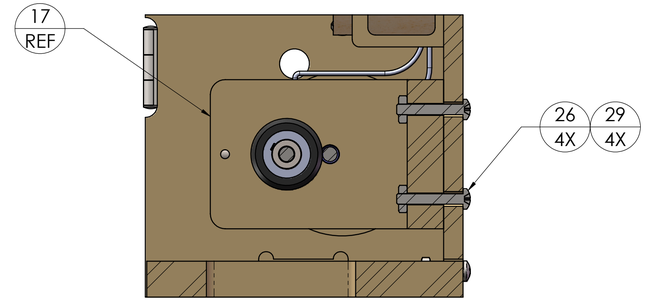
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
-	WEIGHT: 7.12	SHEET 5 OF 15



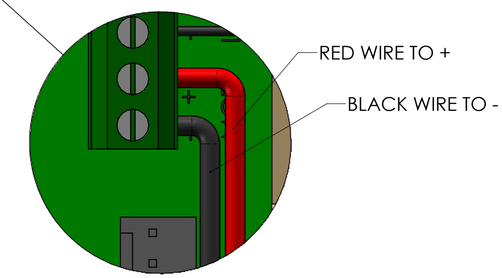
WIRING POWER SUPPLY CONNECTIONS TO PC BOARD WITNESS PAPER DRIVE



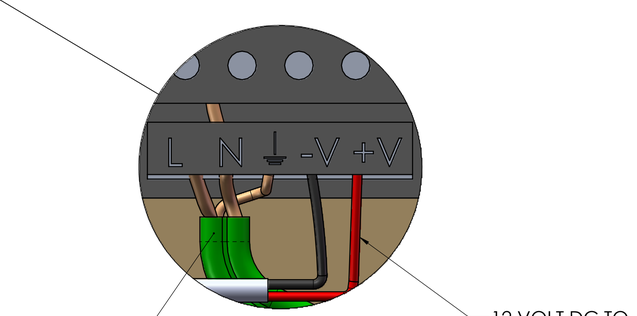
DETAIL G



SECTION F-F



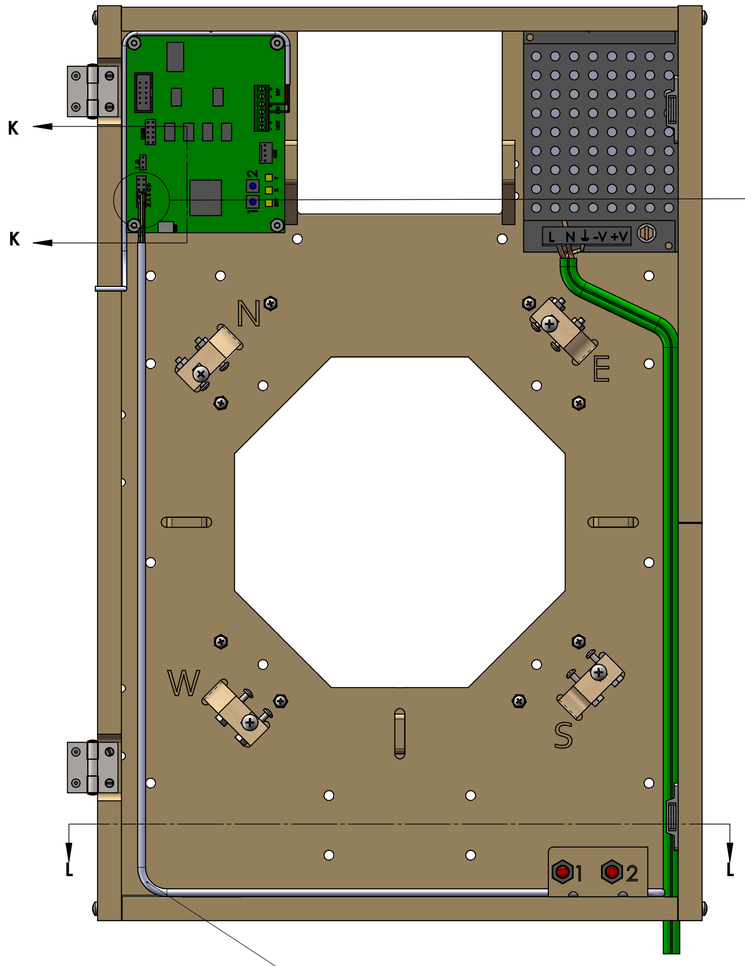
DETAIL H



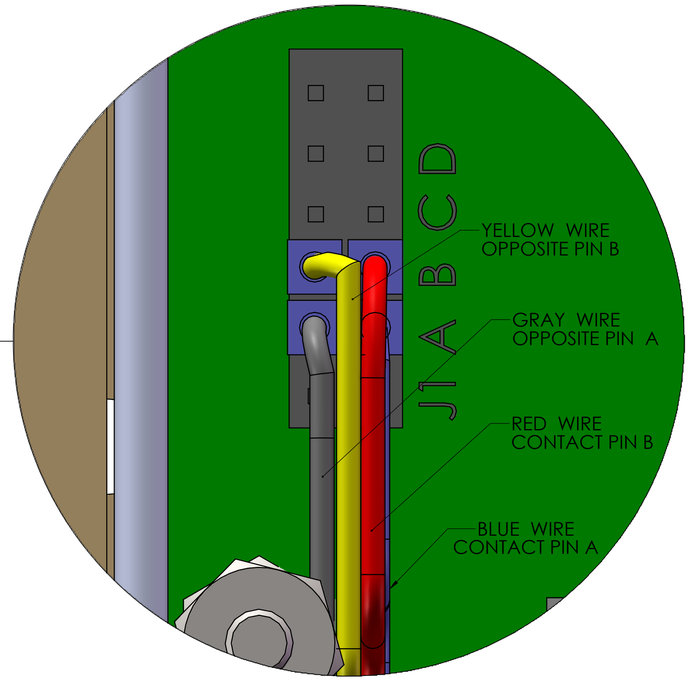
DETAIL J

SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
-	WEIGHT: 7.12	SHEET 6 OF 15

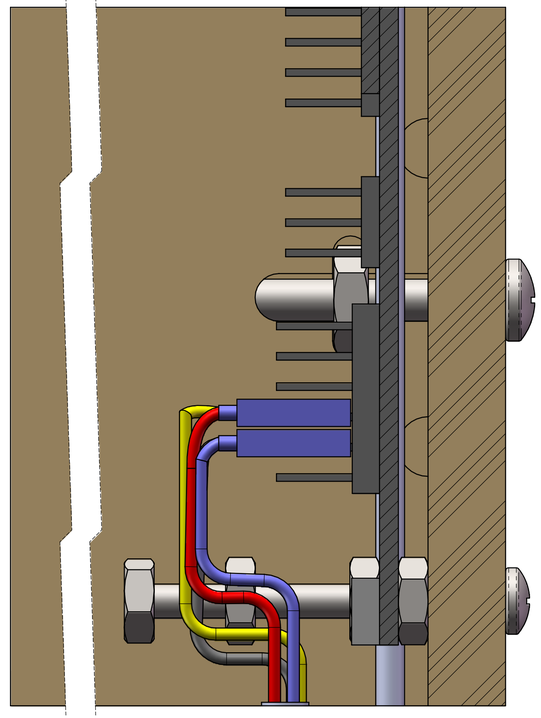
THIS SHEET SHOWS THE WIRING OF THE MULTIFUNCTION SWITCHES.
SEE SHEET 13 FOR CLEARER WIRING DIAGRAM.



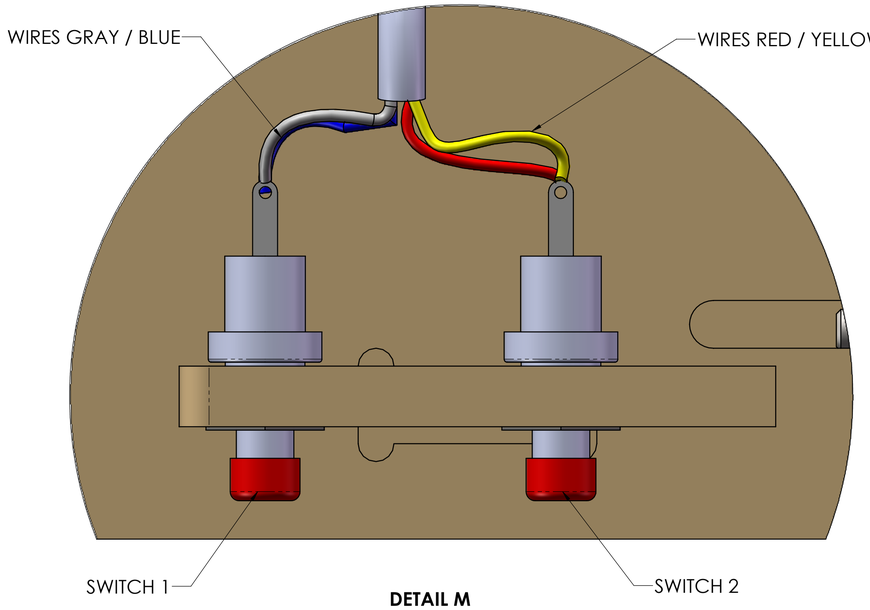
SECTION L-L



DETAIL N



SECTION K-K

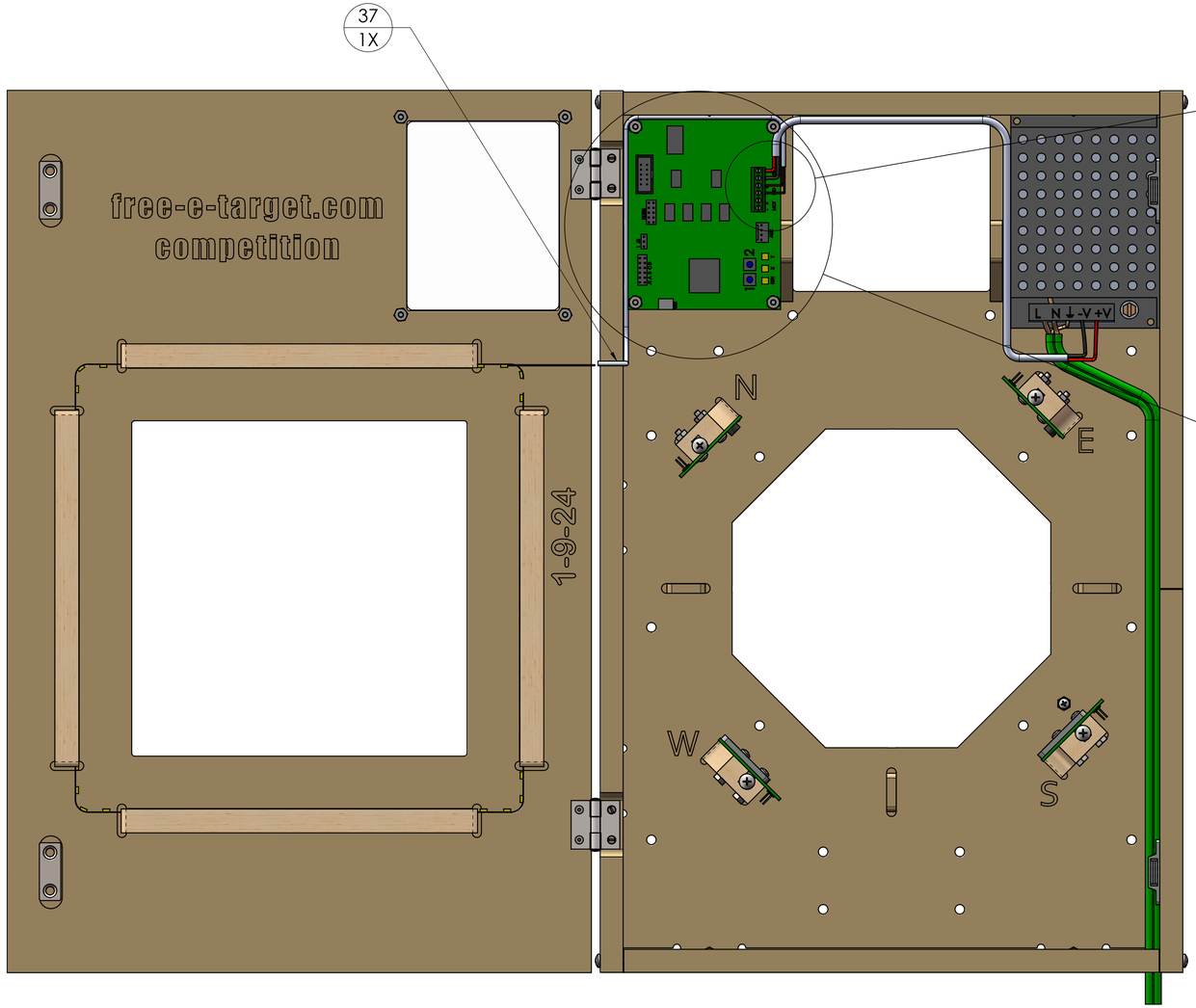


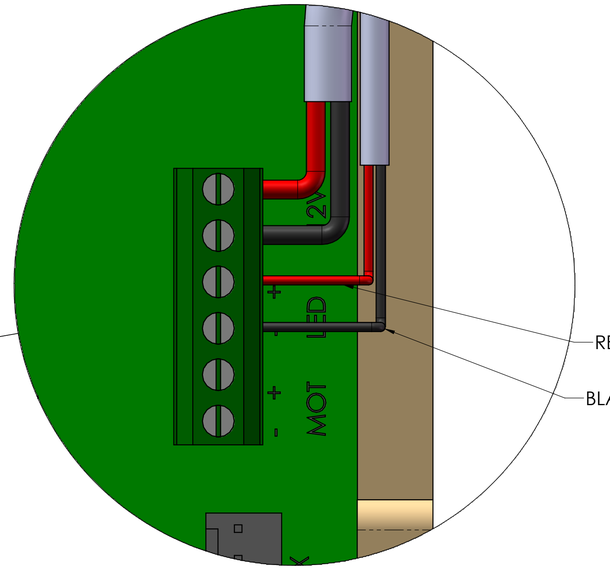
DETAIL M

SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
-	WEIGHT: 7.12	SHEET 7 OF 15

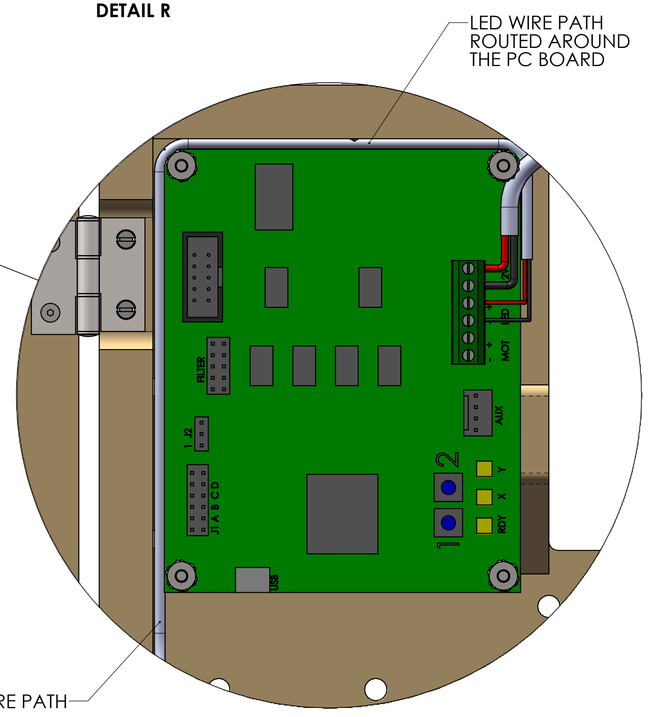
1. TO WIRE THE LED STRIP LOCATE A 2 CONDUCTOR WIRE. CONNECT THE RED WIRE TO (+) TERMINAL ON THE PC BOARD CONNECT THE BLACK WIRE TO (-) CONNECTOR ON THE PC BOARD. RUN THE WIRE IN ANY METHOD YOU CHOOSE. THE EXAMPLE SHOWN IS THIS DESIGNERS CHOICE, YOU RUNS YOU HOW EVER YOU WISH.

2. SOLDER THE SECOND OF THE WIRES TO THE (+) AND (-) SOLDER POINTS ON THE LED STRIP AND GIVE YOUR SELF ENOUGH WIRE SO NOT TO STRAIN IT WHEN OPENING THE FRONT PANEL. SEE SHEET 12 FOR CLEARER WIRING DIAGRAM.





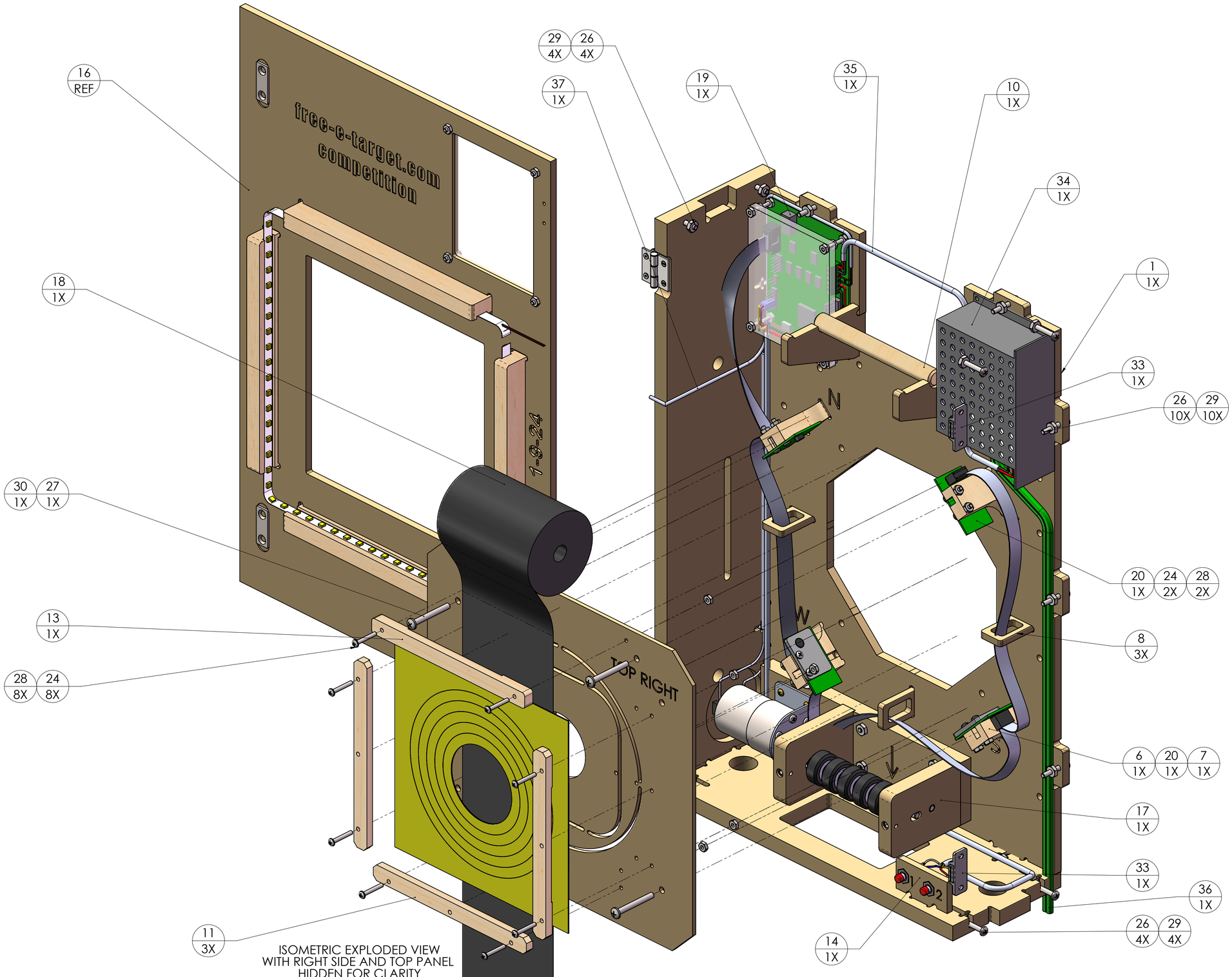
DETAIL R



DETAIL P

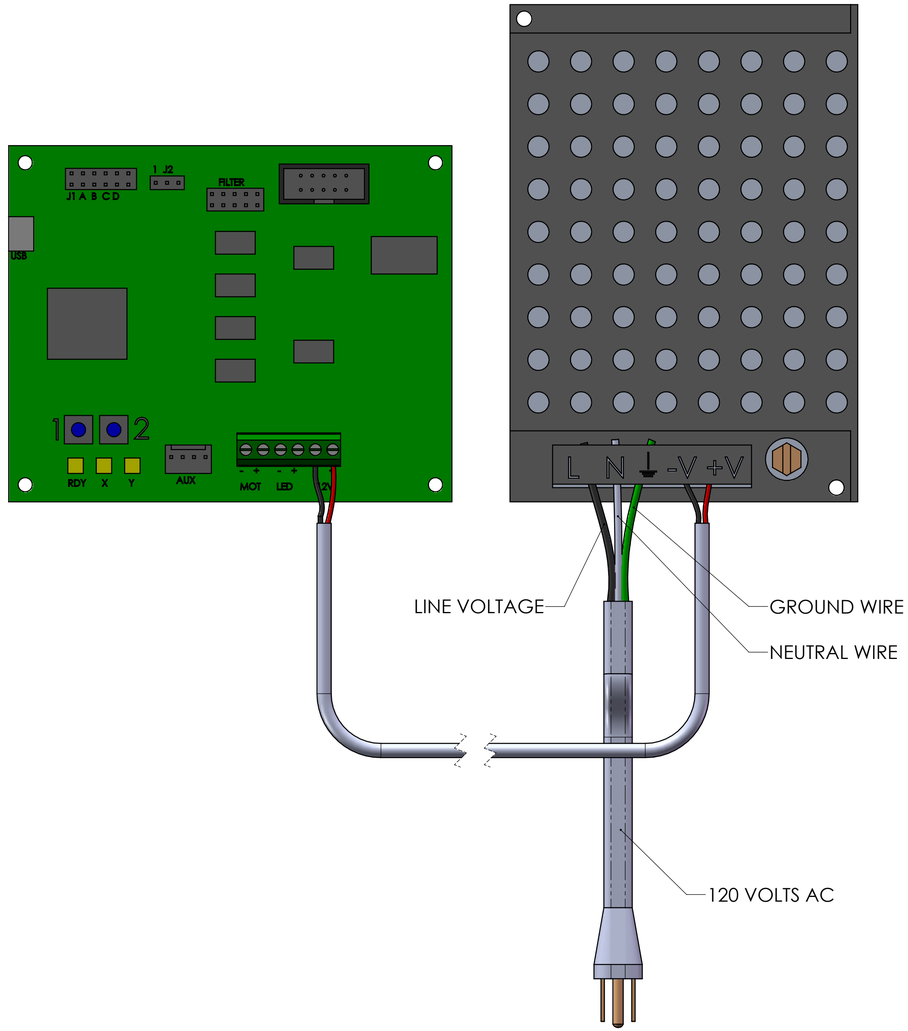
DRAWING OF WIRING THE LED

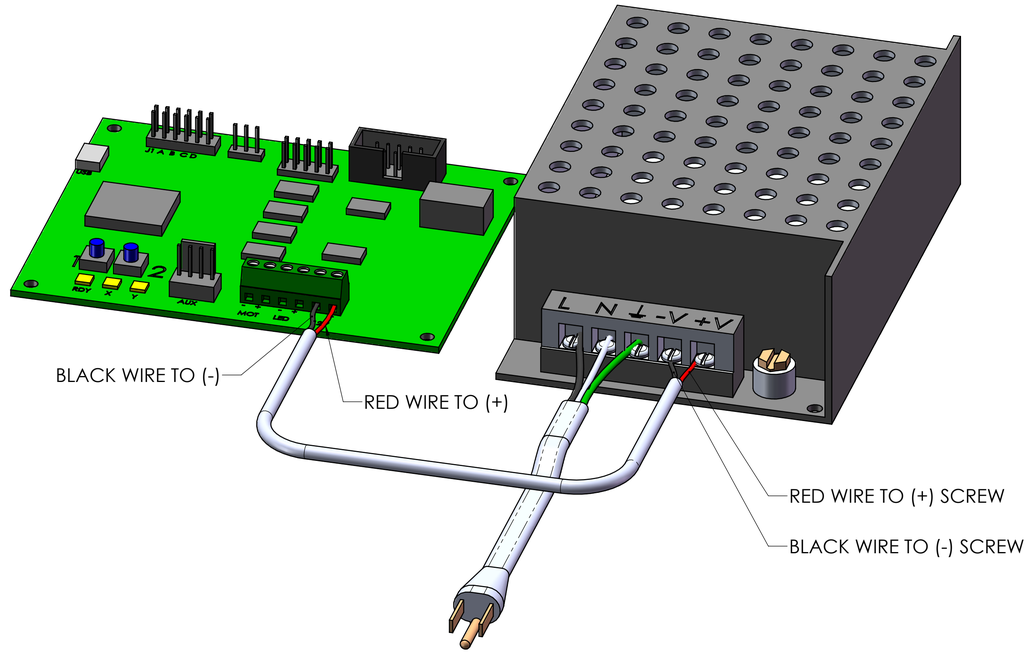
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:2	WEIGHT: 7.12	SHEET 8 OF 15



ISOMETRIC EXPLODED VIEW
WITH RIGHT SIDE AND TOP PANEL
HIDDEN FOR CLARITY

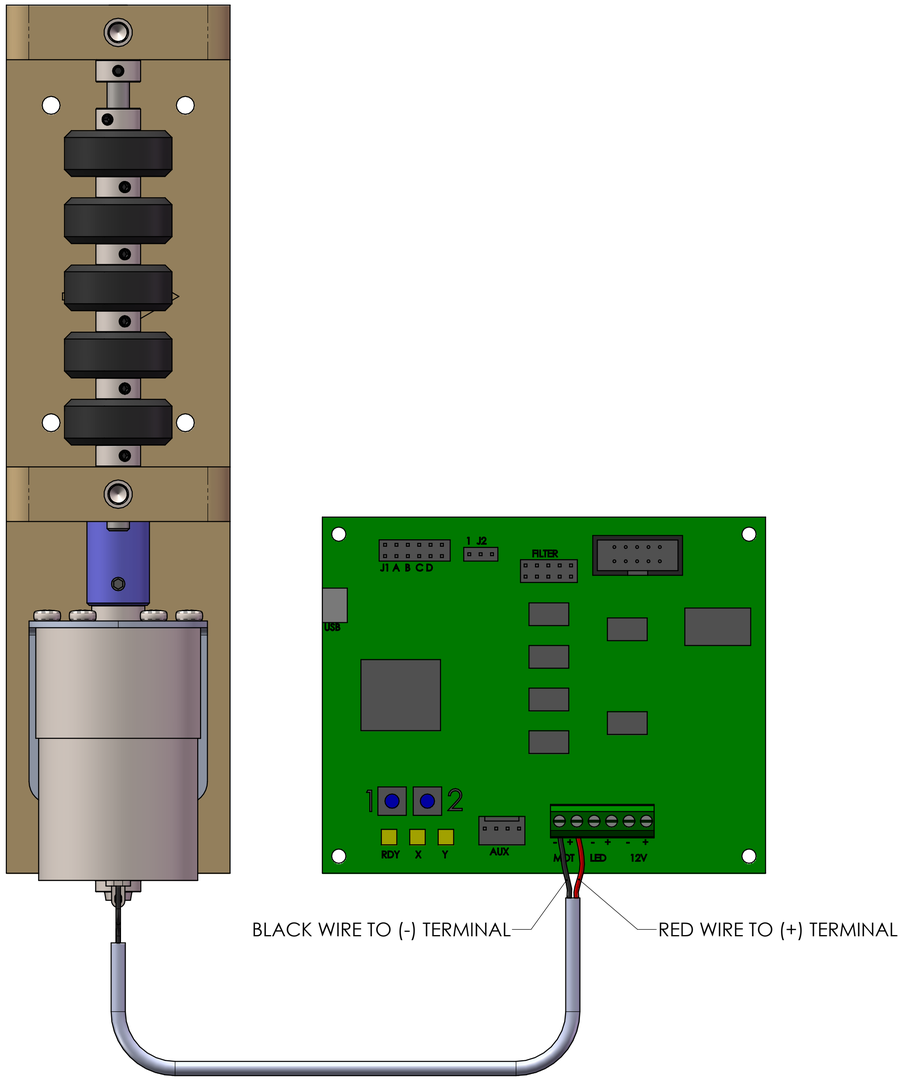
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:4	WEIGHT: 7.12	SHEET 9 OF 15

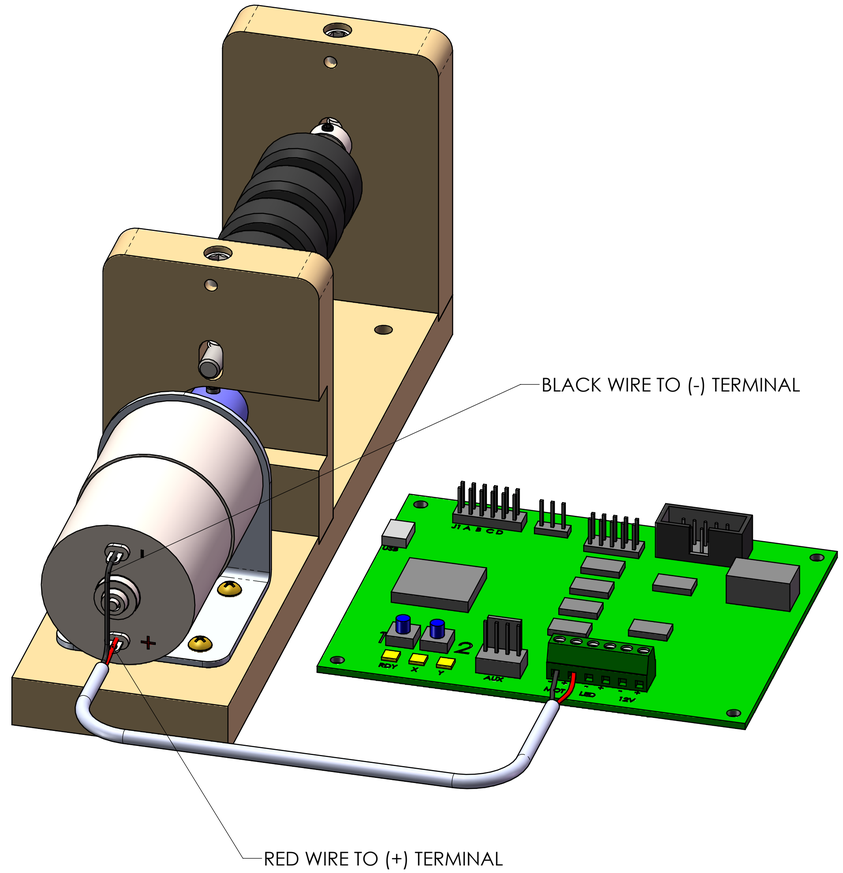




WIRING 12 VOLT POWER SUPPLY TO ESS PC BOARD

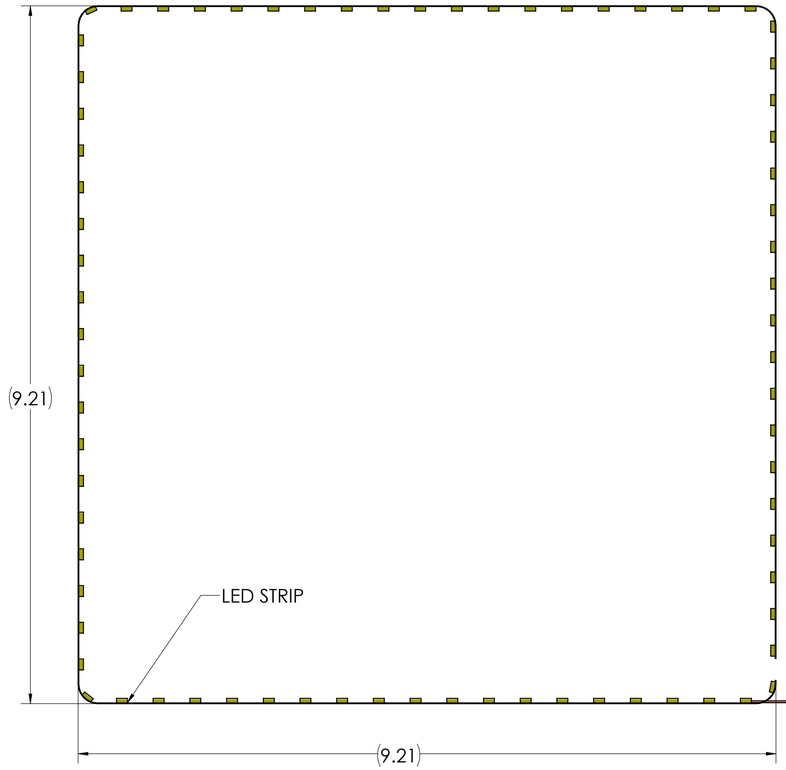
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:1	WEIGHT: 7.12	SHEET 10 OF 15

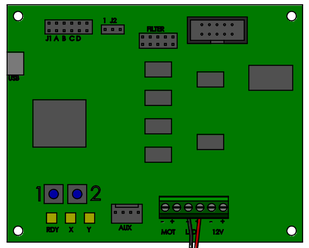




WIRING WITNESS PAPER DRIVE ASSEMBLY

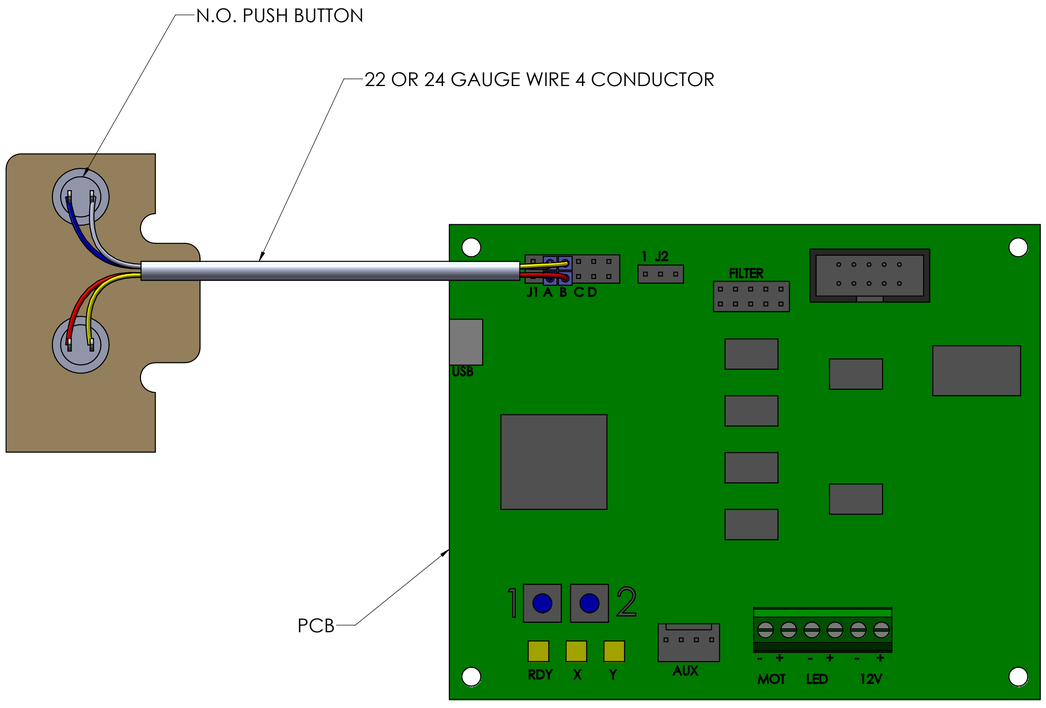
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:2	WEIGHT: 7.12	SHEET 11 OF 15

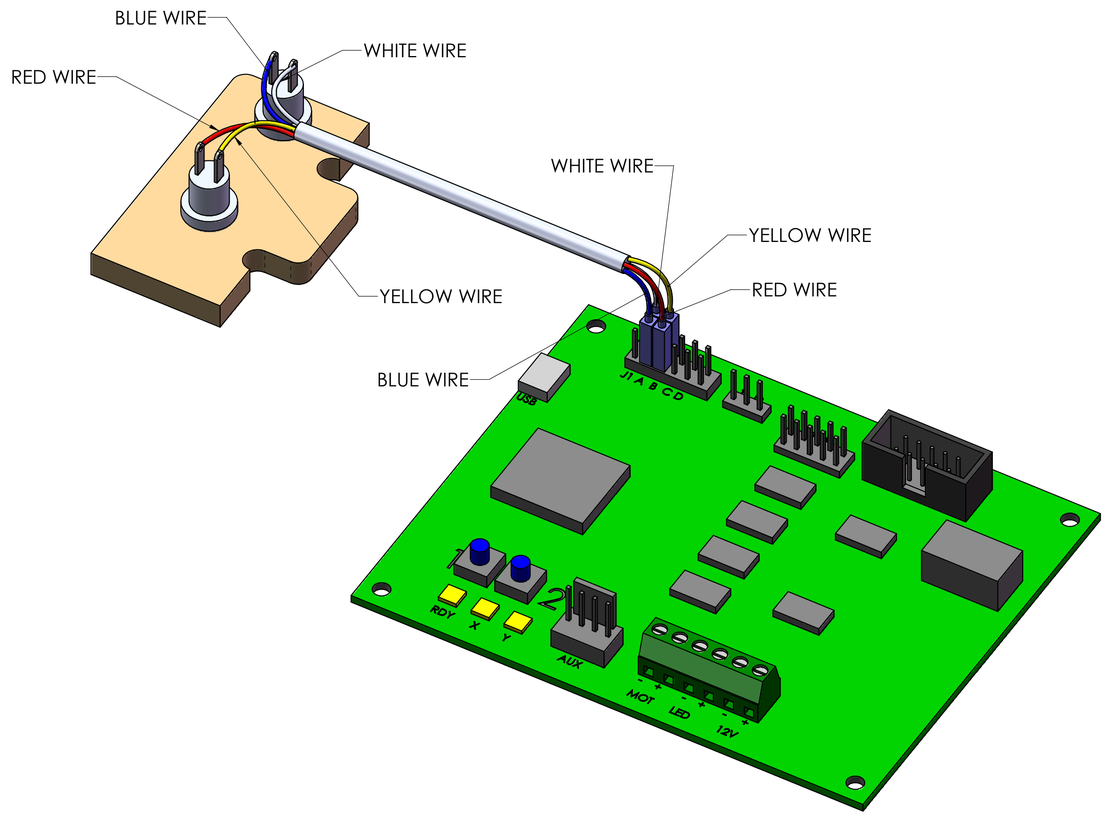




LED WIRING TO ESS PCB

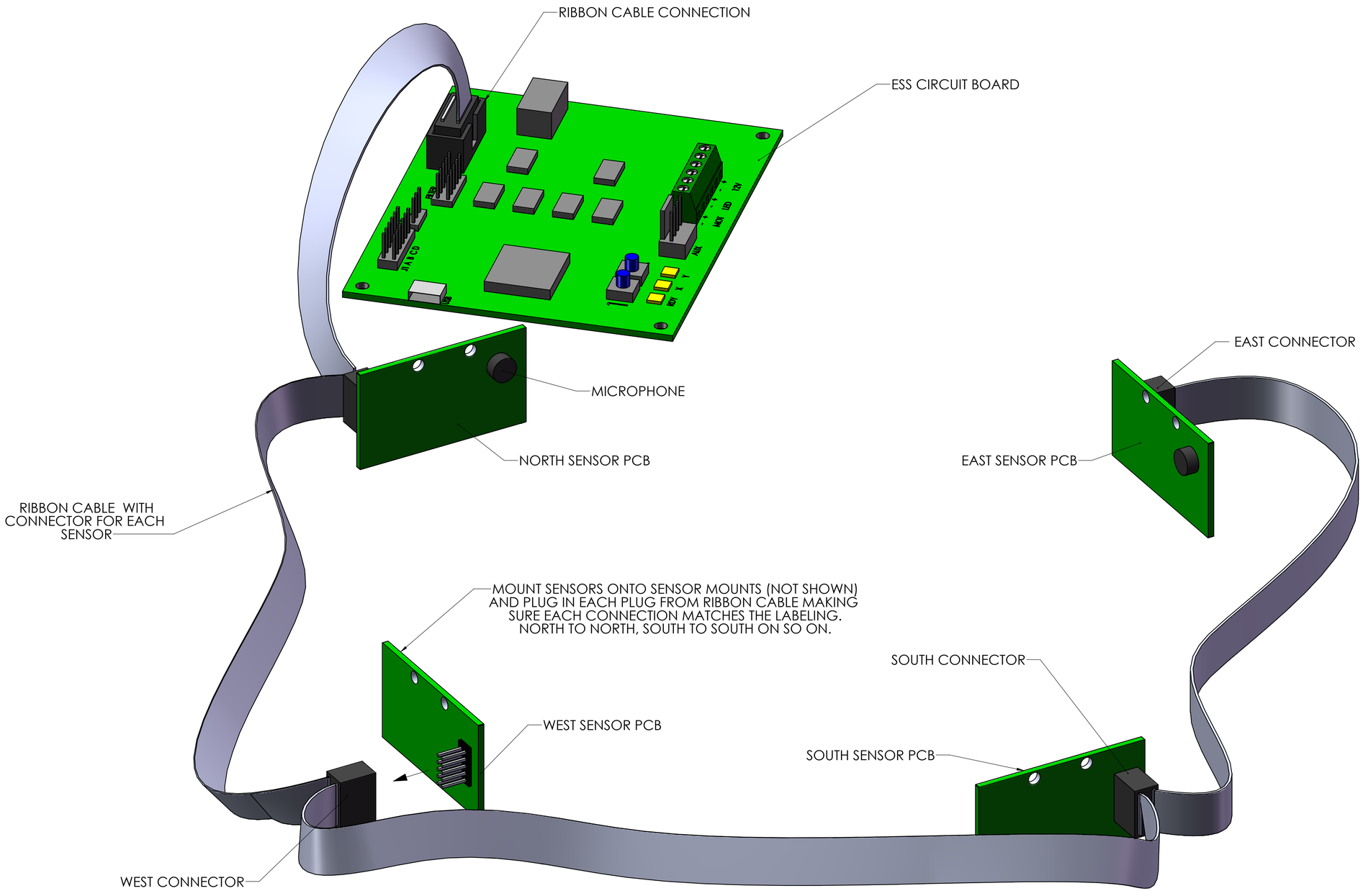
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:2	WEIGHT: 7.12	SHEET 12 OF 15



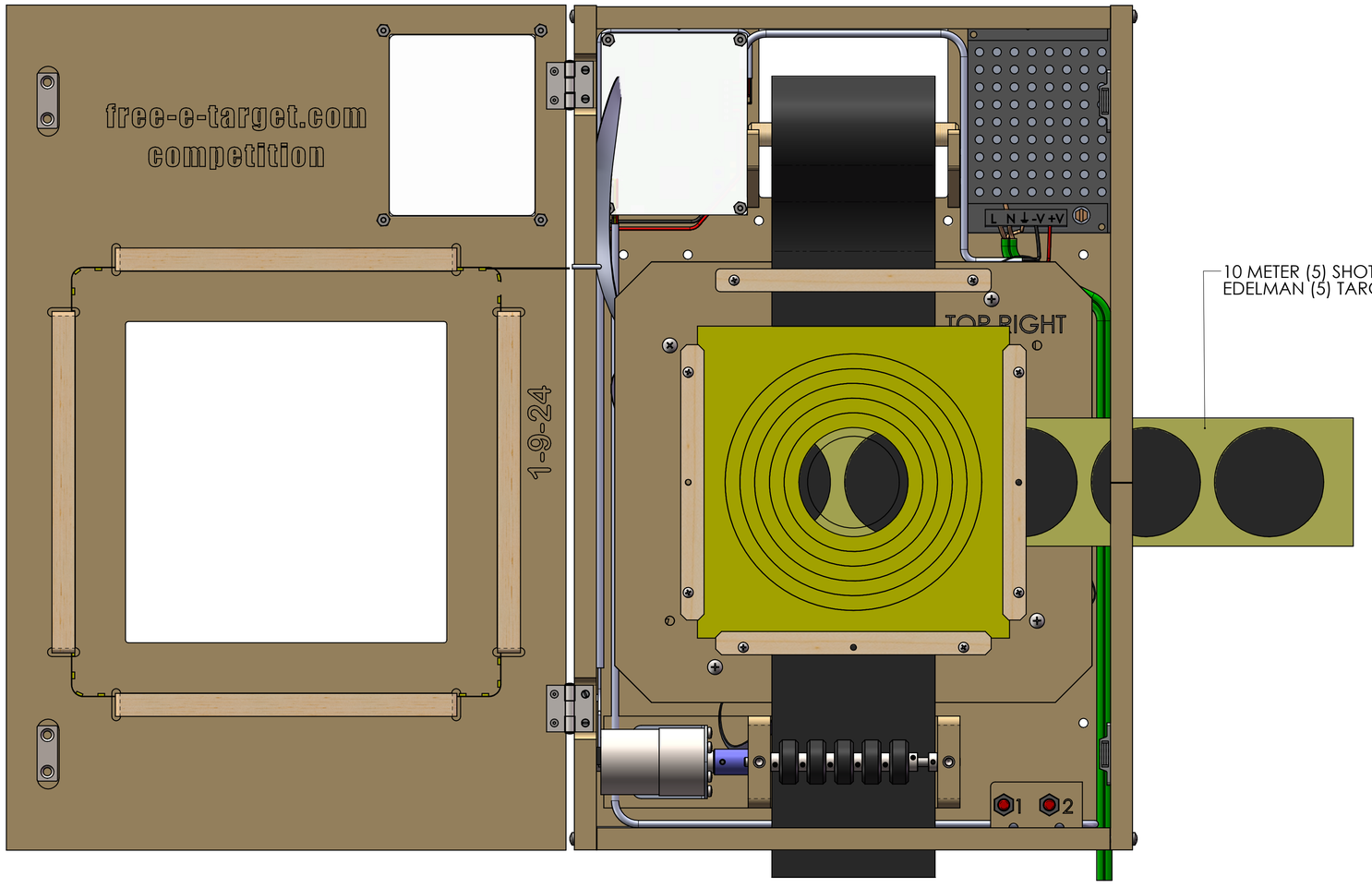


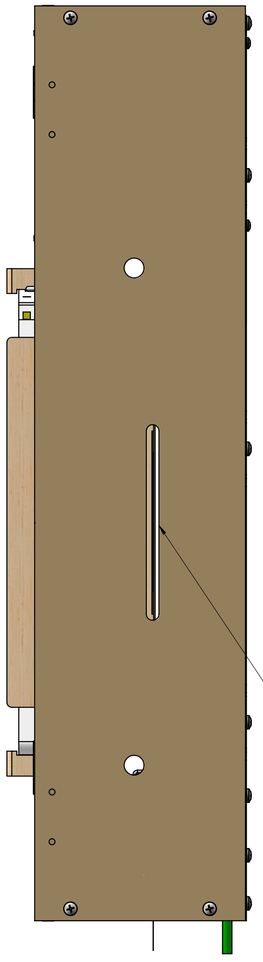
WIRING MULTI FUNCTION SWITCHES TO PCB

SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:1	WEIGHT: 7.12	SHEET 13 OF 15



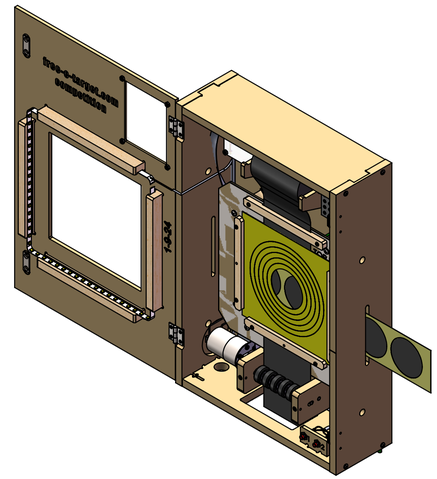
SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
-	WEIGHT: 7.12	SHEET 14 OF 15





10 METER (5) SHOT TARGETS STRIP
EDELMAN (5) TARGET STRIP

SLOT CUT INTO BOTH BOTH SIDES FOR THE COMPETITION HOUSING TO ACCEPT THE EDELMAN (5) TARGET STRIP.



OPTION 2 DESIGN

PURCHASE 10 METER (5) TARGET STRIP

SIZE	DWG. NO.	REV
D	FET-025 FREE E TARGET ASSY	
SCALE: 1:4	WEIGHT: 7.12	SHEET 15 OF 15