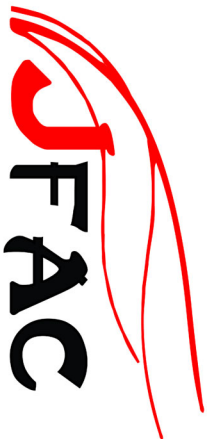




SCHEMATIC DIAGRAM



TRAINING CENTER

PROJECT NAME : VEC SKILLS COMPETITION 2024

PROJECT NO : AWP-EDU-01-PT-PLC-VOC

USER : MECHATRONIC AND ROBOTICS (VEC)

USER : JFAC TRAINING CENTER

REVISED DATE : 11 NOVEMBER 2024



Changes for the Better
FACTORY AUTOMATION

ฉบับอนุมัติใช้ในการแข่งขัน ประจำปี 2567 (ระดํบภาค)

DRAWING NAME : COVER PAGE			REVISION		
PAGE NO :	1	PROJECT NO :	AWP-EDU-01-PT-PLC-VOC	REV _1 :	11 November 2024
PAGE SIZE :	A3	DRAWING NO :	VEC SKILLS COMPETITION 2024	REV _2 :	
SCALE :	1:1	DRAWING STD :	JFAC PATTERN	REV _3 :	
QUALITY :	1	WIRING STD :	JFAC PATTERN	REV _4 :	
CONCEPT BY :		SOMPPOCH V.	PROJECT NAME :		VEC SKILLS COMPETITION 2024
DESIGN BY :		SOMPPOCH V.	PLAN NAME :		--
DRAWING BY :		WASANSAK C.	USER NAME :		MECHATRONIC AND ROBOTICS (VEC)
APPROVE BY :		SOMPPOCH V.	OWNER NAME :		JFAC TRAINING CENTER
CS CHECK BY :		SOMPPOCH V.	S&M MAKER NAME :		JFAC TRAINING CENTER

Sheet No.	Designation	Revision/Modification							As Built
		Approval	Revision 1	Revision 2	Revision 3	Revision 4	Revision 5	Revision 6	
01	COVER PAGE								0
02	CONTENT								0
03	THE COMPOSITION OF PANEL								0
04	THE COMPOSITION OF MECHANIC								0
05	LAYOUT MAIN PANEL								0
06	LAYOUT TERMINAL PANEL								0
07	LAYOUT TERMINAL PANEL MECHANIC								0
08	SYSTEM INTERFACE LAYOUT								0
09	(3000) AC 220V 1PH POWER CIRCUIT								0
10	(6000) CONTROL CIRCUIT DC HARD WIRING								0
11	(8000) PLC INPUT CONTROL CIRCUIT								0
12	(9000) PLC OUTPUT CONTROL CIRCUIT								0
13									0
14									0
15									0
16									0
17									0
18									0
19									0
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24									0
25									0
26									0
27									0
28									0
29									0
30									0

	Designation	Revision/Modification							As Built
		Approval	Revision 1	Revision 2	Revision 3	Revision 4	Revision 5	Revision 6	
31									0
32									0
33									0
34									0
35									0
36									0
37									0
38									
39									
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JFAC

TRAINING CENTER

DRAWING NAME : CONTENT

PAGE NO : 2

PROJECT NO : AWP-EDU-01-PT-PLC-VOC

REV _1 : 11 November 2024

PAGE SIZE : A3

DRAWING NO : VEC SKILLS COMPETITION 2024

REV _2 :

SCALE : 1:1

DRAWING STD : JFAC PATTERN

REV _3 :

QUALITY : 1

WIRING STD : JFAC PATTERN

REV _4 :

CONCEPT BY : SOMPOCH V.

DESIGN BY : SOMPOCH V.

DRAWING BY : WASANSAK C.

APPROVE BY : SOMPOCH V.

CS CHECK BY : SOMPOCH V.

PROJECT NAME : VEC SKILLS COMPETITION 2024

PLAN NAME : --

USER NAME : MECHATRONIC AND ROBOTICS (VEC)

OWNER NAME : JFAC TRAINING CENTER

SIG&MAKER NAME : JFAC TRAINING CENTER

THE COMPOSITION OF PANEL

NO	SYMBOL	DESCRIPTION	BRAND	MODEL	QTY	REMARK
1	CB1	MOLDED CASE CIRCUIT BREAKER 10AT/30AF	HITACHI	S-30S 2P-10A	1.00	
2	CV1	SWITCHING POWER SUPPLY 220VAC/24VDC	DELTA	DRP024V060W1AA	1.00	
3	PLC1	PLC COMPACT TYPE 16IN/16OUT	MTSUBISHI	FX5U-32MR/ES	1.00	
4	CR1	CIRCUIT RELAY @ 24VDC + SOCKET RELAY	OMRON	MY2N D2 + PYF08A-E	1.00	
5	CR2	CIRCUIT RELAY @ 24VDC + SOCKET RELAY	IDEC	RU2S-C-D24 + SM2S-05DF	1.00	
6	CR3	CIRCUIT RELAY @ 24VDC + SOCKET RELAY	IDEC	RU2S-C-D24 + SM2S-05DF	1.00	
7	SS01	SELECTOR SWITCH "MODE MAN AUTO"	IDEC	YW1S-2E11	1.00	
8	PB01	PUSH BUTTON SWITCH MOMENTARY(BLUE)"CYCLE START"	IDEC	YW1B-M1E10S	1.00	
9	PB02	PUSH BUTTON SWITCH MOMENTARY(BLUE)"AUTO START"	IDEC	YW1B-M1E10S	1.00	
10	EMG01	EMERGENCY STOP SWITCH "EMERGENCY STOP"	IDEC	YW1B-V4E01R	1.00	
11	PL01	PILOT LAMP @24VAC (RED) "CYLINDER 1 STATUS"	IDEC	YW1P-2EQ4R	1.00	
12	PL02	PILOT LAMP @24VAC (RED) "CYLINDER 2 STATUS"	IDEC	YW1P-2EQ4R	1.00	
13	PL03	PILOT LAMP @24VAC (RED) "VACUUM STATUS"	IDEC	YW1P-2EQ4R	1.00	
14	TB1	TERMINAL BLOCK	IDEC	BNH1SLW	3.00	
15	TB2	TERMINAL BLOCK	IDEC	BNH15MW	4.00	
16	TB3	TERMINAL BLOCK	IDEC	BNH15MW	20.00	
17	F1	FUSE TERMINAL BLOCK (2A)	SHINOHAWA	RT18-32-1P	1.00	
18		STOPPER TERMINAL	IDEC	BNL6	14.00	
19		END PLATE	IDEC	BNE15W	4.00	
19		DUST COVER TERMINAL	IDEC	BNC230	3.00	
20		JUMPPER	IDEC	BNJ26FWB	2.00	

				
DRAWING NAME : THE COMPOSITION OF PANEL		REVISION		
PAGE NO : 3	PROJECT NO : AWP-EDU-01-PT-PLC-VOC	REV_1 : 11 November 2024	CONCEPT BY : SOMPOCH V.	PROJECT NAME : VEC SKILLS COMPETITION 2024
PAGE SIZE : A3	DRAWING NO : VEC SKILLS COMPETITION 2024	REV_2 :	DRAWING BY : WASANSACK C.	USER NAME : MECHATRONIC AND ROBOTICS (VEC)
SCALE : 1:1	DRAWING STD : JFAC PATTERN	REV_3 :	APPROVE BY : SOMPOCH V.	OWNER NAME : JFAC TRAINING CENTER
QUALITY : 1	WIRING STD : JFAC PATTERN	REV_4 :	CS CHECK BY : SOMPOCH V	SIG&MAKER NAME : JFAC TRAINING CENTER

THE COMPOSITION OF MECHANIC

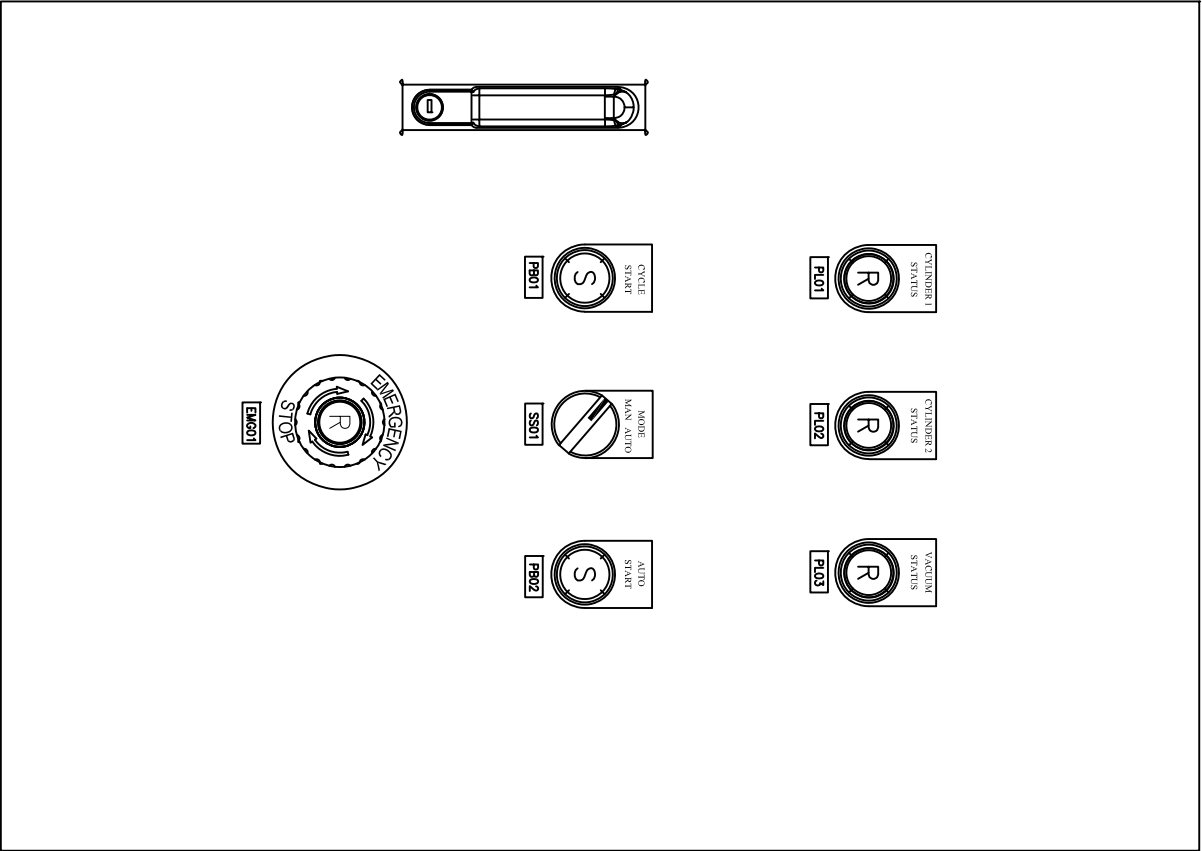
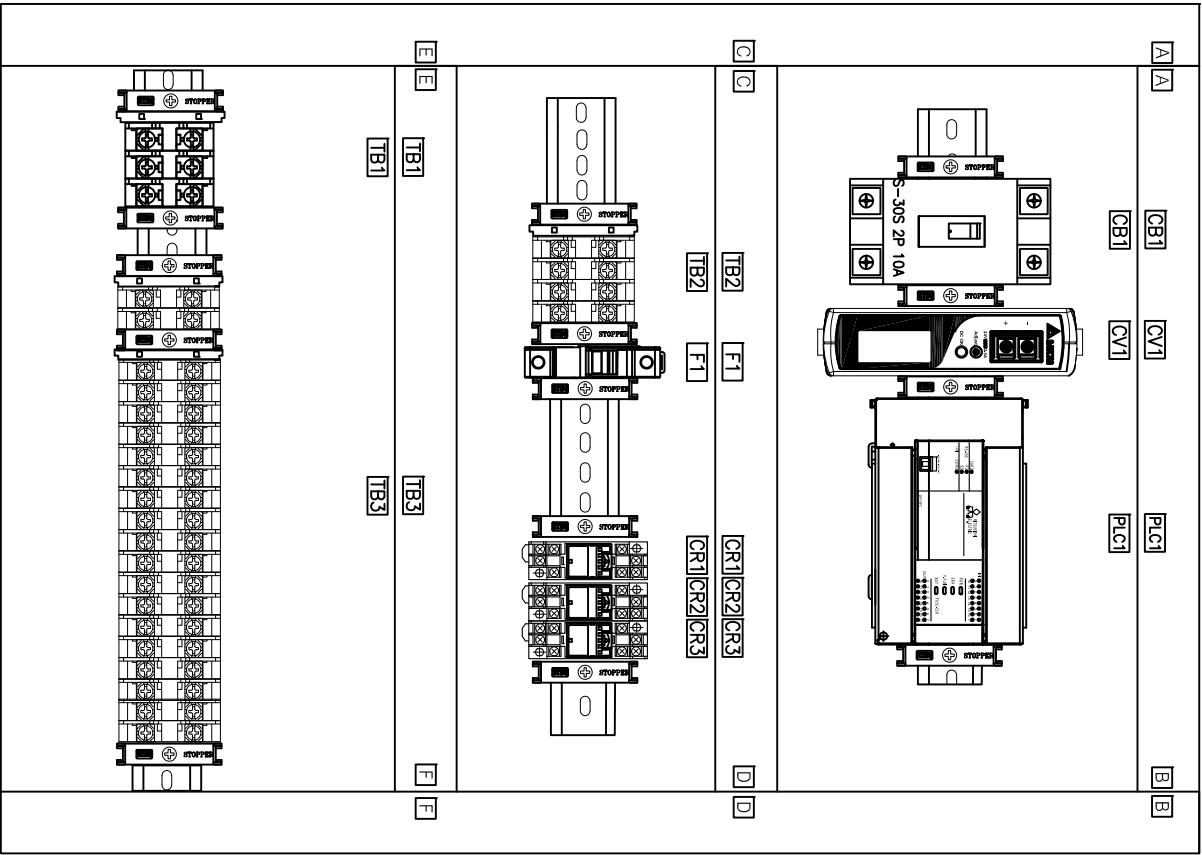
NO	SYMBOL	DESCRIPTION	BRAND	MODEL	QTY	REMARK
1	SV01	DIRECTIONAL CONTROL VALVE	SMC	SY3120-SLU-C4	1.00	
2	SV02	DIRECTIONAL CONTROL VALVE	SMC	SY3120-SLU-C4	1.00	
3	SV03	DIRECTIONAL CONTROL VALVE	SMC	SY3120-SLU-C4	1.00	
4		TWIN-ROD CYLINDER	SMC	CXSM15-100	2.00	
5		REGULATOR AND FILTER	SMC	AW20-02BE-B	1.00	
6		SPACER	SMC	--	2.00	
7		LUBRICATOR	SMC	AL20-02-A	1.00	
8		3/2 MANUAL VALVE	SMC	VHS-02A	1.00	
9		FLOW CONTROL VALVE	SMC	AS1201F	4.00	
10		SUCTION PAD	--	--	1.00	
11		VACUUM GENERATOR	SMC	ZH070	1.00	
12	VS01	VACUUM SWITCH	SMC	ZSE10-M5-A	1.00	
13	LSS01	REED AUTO SWITCH	SMC	D-Z73	1.00	
14	LSS02	REED AUTO SWITCH	SMC	D-Z73	1.00	
15	LSS03	REED AUTO SWITCH	SMC	D-Z73	1.00	
16	LSS04	REED AUTO SWITCH	SMC	D-Z73	1.00	
17	TB4	TERMINAL BLOCK	TOYOGIKEN	PTW-SS10	6.00	
18	TB5	TERMINAL BLOCK	TOYOGIKEN	PTW-SS10	5.00	
19		STOPPER TERMINAL	TOYOGIKEN	GTY18	4.00	
20		END PLATE	TOYOGIKEN	PSWL-1(A)	2.00	
21		END PLATE	TOYOGIKEN	PSWL-1(B)	2.00	
22		JUMPPER	TOYOGIKEN	BB10-10	2.00	

DRAWING NAME : THE COMPOSITION OF MECHANIC					REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : VEC SKILLS COMPETITION 2024	
PAGE NO :	4	PROJECT NO :	AWP-EDU-01-PT-PLC-VOC	REV _1 :	11 November 2024	DESIGN BY :	SOMPOCH V.	PLAN NAME :	--	
PAGE SIZE :	A3	DRAWING NO :	VEC SKILLS COMPETITION 2024	REV _2 :		DRAWING BY :	WASANSAK C.	USER NAME :	MECHATRONIC AND ROBOTICS (VEC)	
SCALE :	1:1	DRAWING STD :	JFAC PATTERN	REV _3 :		APPROVE BY :	SOMPOCH V.	OWNER NAME :	JFAC TRAINING CENTER	
QUALITY :	1	WIRING STD :	JFAC PATTERN	REV _4 :		CS CHECK BY :	SOMPOCH V.	SI&MAKER NAME :	JFAC TRAINING CENTER	



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LAYOUT MAIN PANEL



DRAWING NAME : LAYOUT MAIN PANEL			REVISION		CONCEPT BY : SOMPOCH V.	PROJECT NAME : VEC SKILLS COMPETITION 2024	
PAGE NO :	5	PROJECT NO : AWP-EDU-01-PT-PLC-VOC	REV _1 :	11 November 2024	DESIGN BY : SOMPOCH V.	PLAN NAME	--
PAGE SIZE :	A3	DRAWING NO : VEC SKILLS COMPETITION 2024	REV _2 :		DRAWING BY : WASANSAK C.	USER NAME	MECHATRONIC AND ROBOTICS (VEC)
SCALE :	1:1	DRAWING STD : JFAC PATTERN	REV _3 :		APPROVE BY : SOMPOCH V.	OWNER NAME	JFAC TRAINING CENTER
QUALITY :	1	WIRING STD : JFAC PATTERN	REV _4 :		CS CHECK BY : SOMPOCH V	SI&MAKER NAME	JFAC TRAINING CENTER



TB1

TERMINAL IDEC
MODEL :BNH15LW 3 PCS.

1	2	3
L	N	E

TB2

TERMINAL IDEC
MODEL :BNH15MW 4 PCS.

1	2	3	4
P24	P24	N24	N24

TB3

TERMINAL IDEC
MODEL :BNH15MW 20 PCS.

1	2
P24	N24

3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
X000	X001	X002	X003	X004	X005	X006	X007	X010	X011	D01	D02	D03	Y003	Y004	Y005	Y006	Y007

DRAWING NAME : LAYOUT TERMINAL PANEL				REVISION		CONCEPT BY :	SOMPOCH V.	PROJECT NAME :	VEC SKILLS COMPETITION 2023
PAGE NO :	6	PROJECT NO :	AWP-EDU-01-PT-PLC-VOC	REV _1 :	16 OCTOBER 2023	DESIGN BY :	SOMPOCH V.	PLAN NAME :	--
PAGE SIZE :	A3	DRAWING NO :	VEC SKILLS COMPETITION 2023	REV _2 :		DRAWING BY :	WASANSAK C.	USER NAME :	MECHATRONIC AND ROBOTICS (VEC)
SCALE :	1:1	DRAWING STD :	JFAC PATTERN	REV _3 :		APPROVE BY :	SOMPOCH V.	OWNER NAME :	JFAC TRAINING CENTER
QUALITY :	1	WIRING STD :	JFAC PATTERN	REV _4 :		CS CHECK BY :	SOMPOCH V	SI&MAKER NAME :	JFAC TRAINING CENTER



TB4

TERMINAL IDEC (MECHANIC)
MODEL :BNDH15W 6 PCS.

1	2	3	4	5	6
N24	N24	N24	N24	N24	N24
P24	P24	P24	P24	P24	P24

TB5

TERMINAL IDEC (MECHANIC)
MODEL :BNDH15W 5 PCS.

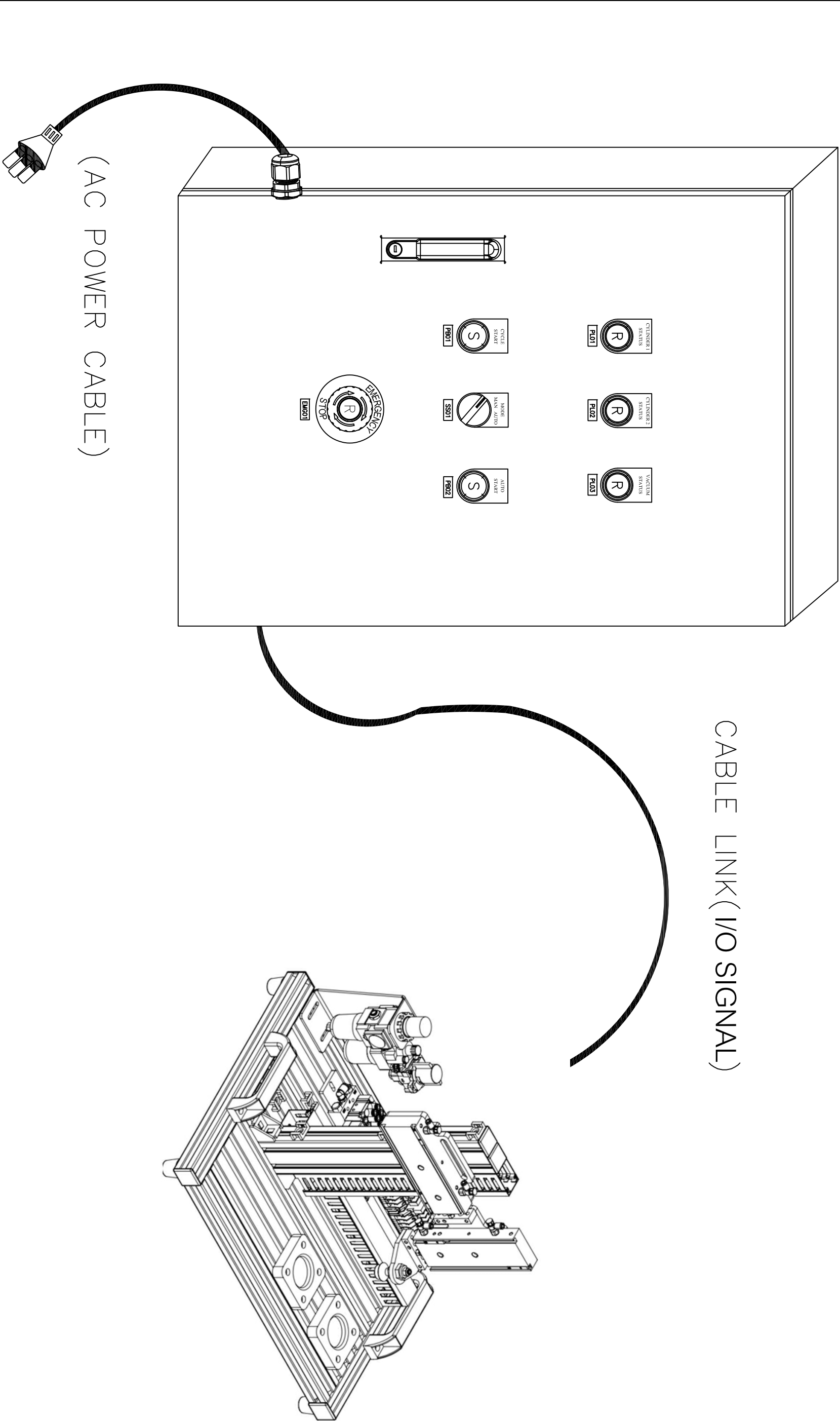
1	2	3	4	5
D01	D02	D03	N/A	N/A
X005	X006	X007	X010	X011

DRAWING NAME : LAYOUT TERMINAL PANEL MECHANIC					REVISION					CONCEPT BY : SOMPOCH V.					PROJECT NAME : VEC SKILLS COMPETITION 2024				
PAGE NO : 7		PROJECT NO : AWP-EDU-01-PT-PLC-VOC			REV _1 : 11 November 2024					DESIGN BY : SOMPOCH V.		PLAN NAME : --							
PAGE SIZE : A3		DRAWING NO : VEC SKILLS COMPETITION 2024			REV _2 :					DRAWING BY : WASANSAK C.		USER NAME : MECHATRONIC AND ROBOTICS (VEC)							
SCALE : 1:1		DRAWING STD :JFAC PATTERN			REV _3 :					APPROVE BY : SOMPOCH V.		OWNER NAME : JFAC TRAINING CENTER							
QUALITY : 1		WIRING STD :JFAC PATTERN			REV _4 :					CS CHECK BY : SOMPOCH V		SI&MAKER NAME : JFAC TRAINING CENTER							



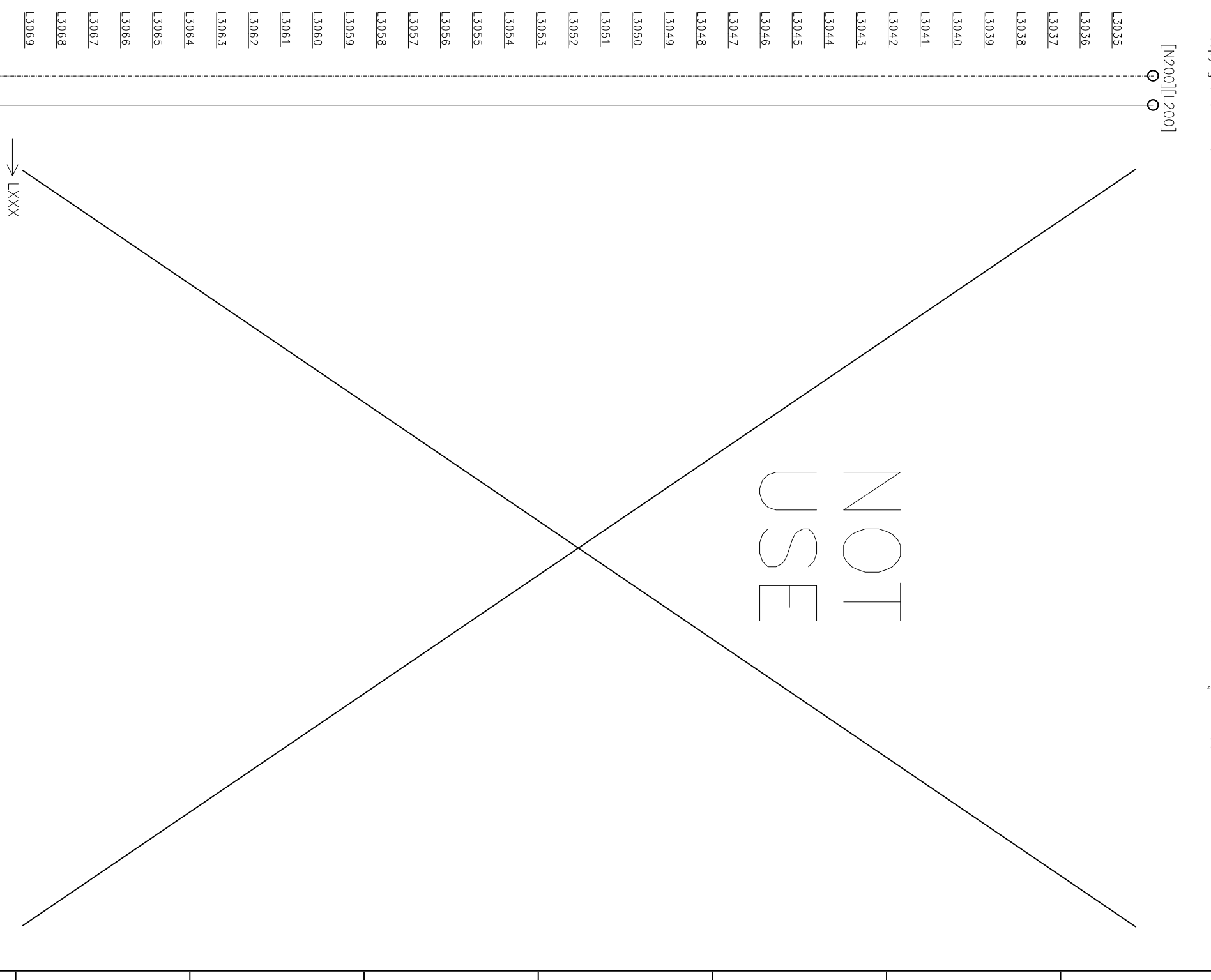
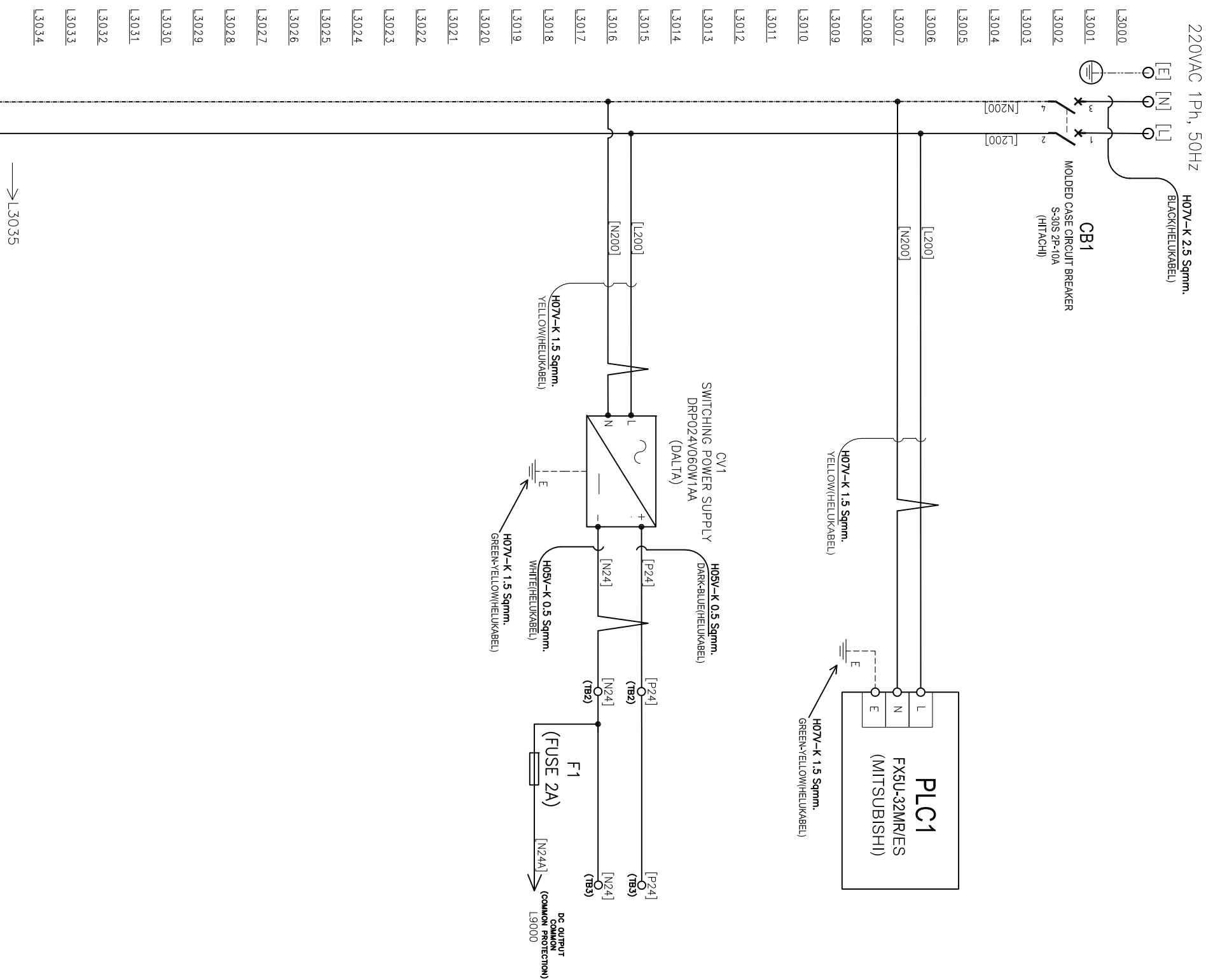
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SYSTEM INTERFACE LAYOUT

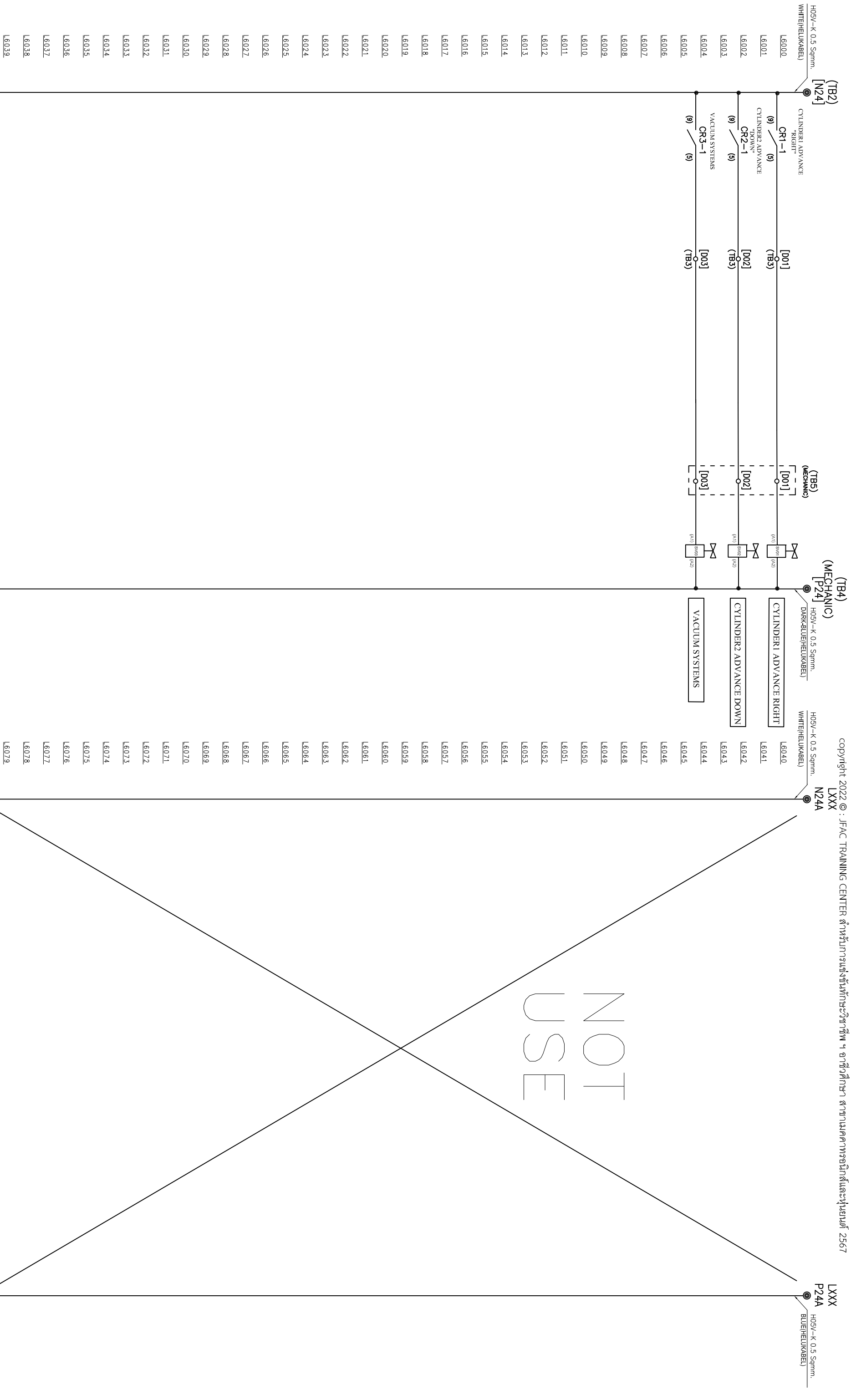


 JFAC TRAINING CENTER										DRAWING NAME : SYSTEM INTERFACE LAYOUT										REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : VEC SKILLS COMPETITION 2024	
PAGE NO : 8		PROJECT NO : AWP-EDU-01-PT-PLC-VOC				REV_1 : 11 November 2024				DESIGN BY : SOMPOCH V.				PLAN NAME : --											
PAGE SIZE : A3		DRAWING NO : VEC SKILLS COMPETITION 2024				REV_2 :				DRAWING BY : WASANSACK C.				USER NAME : MECHATRONIC AND ROBOTICS (VEC)											
SCALE : 1:1		DRAWING STD : JFAC PATTERN				REV_3 :				APPROVE BY : SOMPOCH V.				OWNER NAME : JFAC TRAINING CENTER											
QUALITY : 1		WIRING STD : JFAC PATTERN				REV_4 :				CS CHECK BY : SOMPOCH V.				SI&MAKER NAME : JFAC TRAINING CENTER											



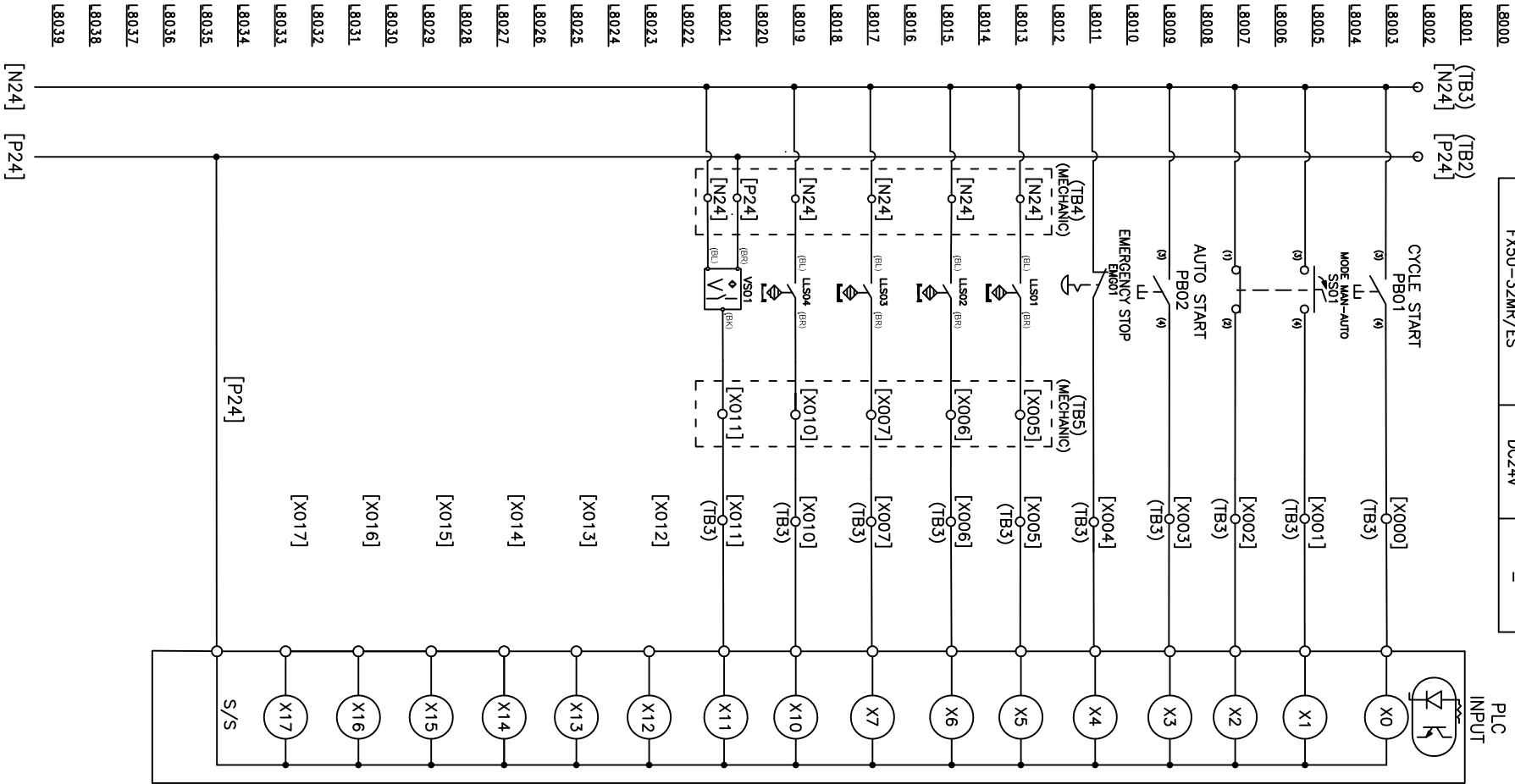


 JFAC TRAINING CENTER				
DRAWING NAME :	(3000) AC 220V 1PH POWER CIRCUIT		REVISION	
PAGE NO :	9	PROJECT NO : AWP-EDU-01-PT-PLC-VOC	REV_1 : 11 November 2024	
PAGE SIZE :	A3	DRAWING NO : VEC SKILLS COMPETITION 2024	REV_2 :	
SCALE :	1:1	DRAWING STD : JFAC PATTERN	REV_3 :	
QUALITY :	1	WIRING STD : JFAC PATTERN	REV_4 :	
		CONCEPT BY : SOMPOCH V.	PROJECT NAME : VEC SKILLS COMPETITION 2024	
		DESIGN BY : SOMPOCH V.	PLAN NAME : --	
		DRAWING BY : WASANSAK C.	USER NAME : MECHATRONIC AND ROBOTICS (VEC)	
		APPROVE BY : SOMPOCH V.	OWNER NAME : JFAC TRAINING CENTER	
		CS CHECK BY : SOMPOCH V.	SIG/MAKER NAME : JFAC TRAINING CENTER	



 JFAC TRAINING CENTER							
DRAWING NAME : (6000) CONTROL CIRCUIT DC HARD WIRING		REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : VEC SKILLS COMPETITION 2024	
PAGE NO : 10	PROJECT NO : AWP-EDU-01-PT-PLC-VOC	REV_1 : 11 November 2024		DESIGN BY : SOMPOCH V.		PLAN NAME : --	
PAGE SIZE : A3	DRAWING NO : VEC SKILLS COMPETITION 2024	REV_2 :		DRAWING BY : WASANSACK C.		USER NAME : MECHATRONIC AND ROBOTICS (VEC)	
SCALE : 1:1	DRAWING STD : JFAC PATTERN	REV_3 :		APPROVE BY : SOMPOCH V.		OWNER NAME : JFAC TRAINING CENTER	
QUALITY : 1	WIRING STD : JFAC PATTERN	REV_4 :		CS CHECK BY : SOMPOCH V.		SIG&MAKER NAME : JFAC TRAINING CENTER	

UNIT	MITSUBISHI	OUTPUT	SLOT NO.
FX5U-32MR/ES		DC24V	-



DESCRIPTION	TYPE	RELATE
CYCLE START	YW1B-M1E10S	--
MANUAL	YW1S-2E11	--
AUTO	YW1B-M1E10S	--
AUTO START	YW1B-M1E10S	--
EMERGENCY STOP	YW1B-VAE01R	--
REED AUTO SWITCH (CYLINDER1 ADVANCE RIGHT)	D-Z73	--
REED AUTO SWITCH (CYLINDER1 RETURN)	D-Z73	--
REED AUTO SWITCH (CYLINDER2 ADVANCE DOWN)	D-Z73	--
REED AUTO SWITCH (CYLINDER2 RETURN)	D-Z73	--
VACUUM SWITCH	ZSE10-M5-A	--
COMMON	PLC	--

DRAWING NAME : (8000) PLC INPUT CONTROL CIRCUIT		REVISION		CONCEPT BY : SOMPOCH V.		PROJECT NAME : VEC SKILLS COMPETITION 2024	
PAGE NO : 11	PROJECT NO : AWP-EDU-01-PT-PLC-VOC	REV_1 : 11 November 2024		DESIGN BY : SOMPOCH V.		PLAN NAME : --	
PAGE SIZE : A3	DRAWING NO : VEC SKILLS COMPETITION 2024	REV_2 :		DRAWING BY : WASANSAK C.		USER NAME : MECHATRONIC AND ROBOTICS (VEC)	
SCALE : 1:1	DRAWING STD : JFAC PATTERN	REV_3 :		APPROVE BY : SOMPOCH V.		OWNER NAME : JFAC TRAINING CENTER	
QUALITY : 1	WIRING STD : JFAC PATTERN	REV_4 :		CS CHECK BY : SOMPOCH V.		SIG&MAKER NAME : JFAC TRAINING CENTER	



