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**Projectdefinition :** Robot Voetballer 2018 achtwielig platform

**Projectnumber :** 10024468

**Client :** tel.no. :

**Contact :** tel.no. :

**Department :**

**Location :** WTB Control Systems Technology

**Path :** C:\Users\hvdloo\Dropbox\TUE\Eplan\10024468 - Robot Voetballer 2018 achtwielig platform\Robot voetballer 2018 achtwielig platform.elk

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**Number of pages** 17

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KLEURCODE BEDRADING SCHAKELPALENEN		
<b>WISSELSTROOM CIRCUIT</b>		
FASE	400 VOLT	BRUIN
NUL	400 VOLT	LICHTBLAUW
FASE	230 VOLT	BRUIN
NUL	230 VOLT	LICHTBLAUW
FASE	24 VOLT	GROEN
NUL	24 VOLT	PAARS
VREEMDE SPANNING		ORANJE
VREEMDE SPANNING = Andere voeding (potentiaal) dan de hoofdvoeding die de kast binnen komt !!		
PLC INGANGEN		GEEL
PLC UITGANGEN		WIT
<b>GELIJKSTROOM CIRCUIT</b>		
+	24 VOLT	GEEL/ROOD
0	24 VOLT	GEEL/ZWART
-	24 VOLT	GEEL/BLAUW
+	15 VOLT	GROEN/ROOD
0	15 VOLT	GROEN/ZWART
-	15 VOLT	GROEN/BLAUW
+	12 VOLT	BRUIN/ROOD
0	12 VOLT	BRUIN/ZWART
-	12 VOLT	BRUIN/BLAUW
+	5 VOLT	WIT/ROOD
0	5 VOLT	WIT/ZWART
-	5 VOLT	WIT/BLAUW
<b>OVERIGE SPANNINGEN</b>		
+		ROOD
0		ZWART
-		DONKERBLAUW

STROOMTABEL	
IN GOOT ( + REDUCTIE)	
0,14 mm <sup>2</sup>	1,5 A
0,25 mm <sup>2</sup>	3 A
0,50 mm <sup>2</sup>	7,1 A
0,75 mm <sup>2</sup>	8,7 A
1 mm <sup>2</sup>	12 A
1,5 mm <sup>2</sup>	15,5 A
2,5 mm <sup>2</sup>	21 A
4 mm <sup>2</sup>	28,5 A
6 mm <sup>2</sup>	36 A
10 mm <sup>2</sup>	50 A
16 mm <sup>2</sup>	69 A
25 mm <sup>2</sup>	88 A
35 mm <sup>2</sup>	111 A
NIET IN GOOT	
50 mm <sup>2</sup>	141 A
70 mm <sup>2</sup>	178 A
95 mm <sup>2</sup>	220 A
120 mm <sup>2</sup>	254 A
Meerdere koperen aders ( /kabel) Tomg. 30° C	

**MINIMALE DOORSNEDE van koperen aders :**

Buiten omhulsel : Voeding -draad = 1 mm<sup>2</sup> -kabel = 0,75 mm<sup>2</sup>  
 : Stuurstroom -draad = 1 mm<sup>2</sup> -kabel = 0,5 mm<sup>2</sup>  
 Binnen omhulsel : Voeding -draad = 0,75 mm<sup>2</sup>  
 : Stuurstroom -draad = 0,2 mm<sup>2</sup>  
 Data-kabel = 0.08 mm<sup>2</sup>

**SCHAKELDRADEN :**

Bij spanning > 42 V kleur vervolgen  
 Bij spanning < 42 V alle schakeldraden GRIJS

DIN47100 kleurcodetabel

Ader/aderkleur

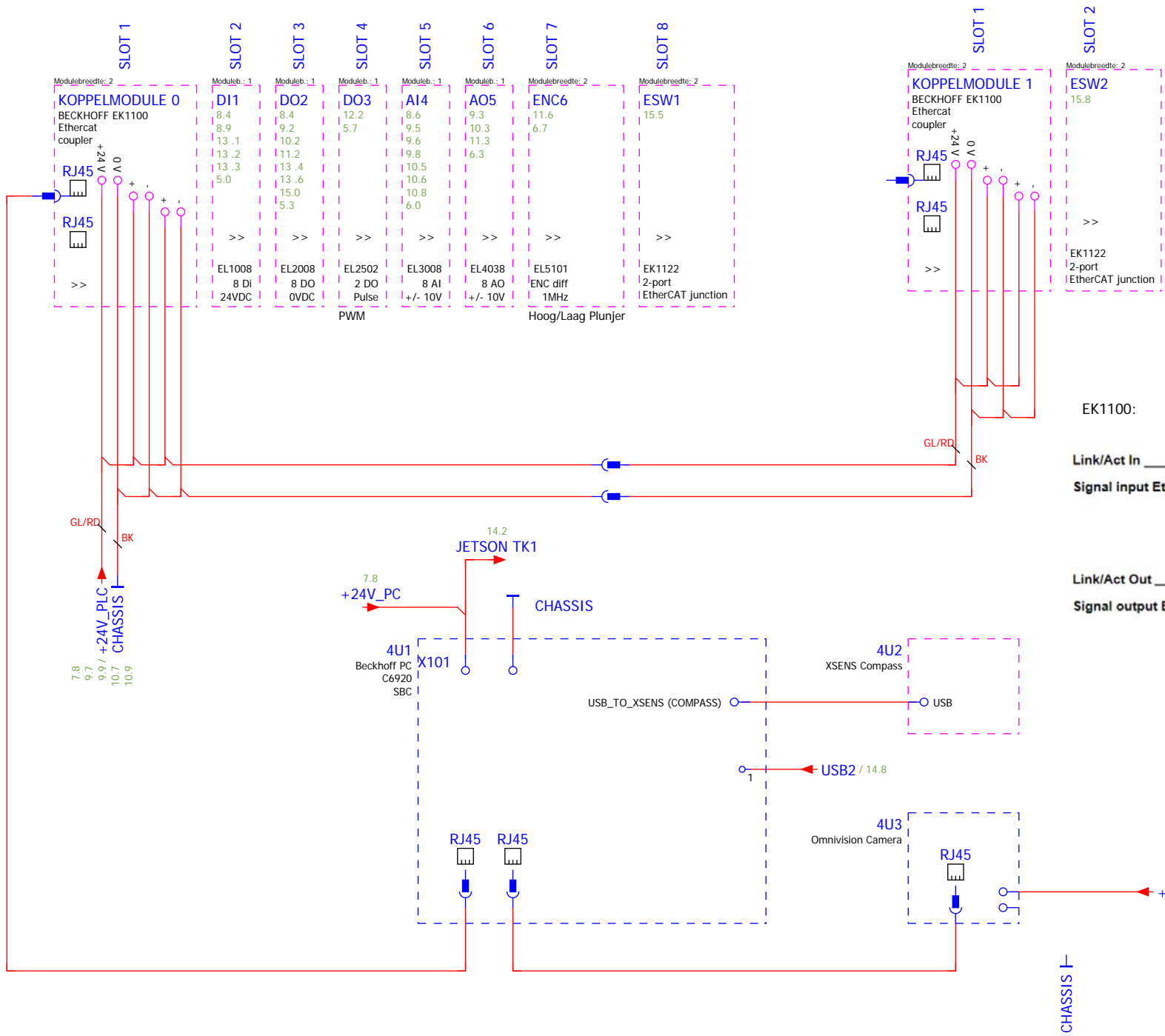
- WIT
- BRUIN
- GROEN
- GEEL
- GRIJS
- ROSE
- BLAUW
- ROOD
- ZWART
- PAARS
- GRIJS/ROSE (ORANJE)
- BLAUW/ROOD
- WIT/GROEN
- BRUIN/GROEN
- WIT/GEEL
- GEEL/BRUIN
- WIT/GRIJS
- GRIJS/BRUIN (GEEL/GROEN)
- WIT/ROSE (WIT/ORANJE)
- ROSE/BRUIN (WIT/BRUIN)
- WIT/BLAUW
- BRUIN/BLAUW
- WIT/ROOD
- BRUIN/ROOD (ZWART/ROOD)
- WIT/ZWART
- BRUIN/ZWART
- GRIJS/GROEN
- GEEL/GRIJS
- ROSE/GROEN (GRIJS/BLAUW)
- GEEL/ROSE (WIT/PAARS)
- GROEN/BLAUW

Ader/aderkleur

- GEEL/BLAUW
- GROEN/ROOD
- GEEL/ROOD
- GROEN/ZWART
- GEEL/ZWART
- GRIJS/BLAUW (ZWART/BLAUW)
- ROSE/BLAUW
- GRIJS/ROOD
- ROSE/ROOD
- GRIJS/ZWART
- ROSE/ZWART
- BLAUW/ZWART
- ROOD/ZWART
- WIT/BRUIN/ZWART
- GEEL/GROEN/ZWART
- GRIJS/ROSE/ZWART
- BLAUW/ROOD/ZWART
- WIT/GROEN/ZWART
- GROEN/BRUIN/ZWART
- WIT/GEEL/ZWART
- GEEL/BRUIN/ZWART
- WIT/GRIJS/ZWART
- GRIJS/BRUIN/ZWART
- WIT/ROSE/ZWART
- ROSE/BRUIN/ZWART
- WIT/BLAUW/ZWART
- BRUIN/BLAUW/ZWART
- WIT/ROOD/ZWART
- BRUIN/ROOD/ZWART
- ZWART/WIT

Andere isolatie :  
 XLPE of EPR = 1,25 x PVC  
 (bv : YMKV of Neopreen)

Uitzondering :  
 i.v.m. korte leidingen in besturingskasten  
 I x1,05



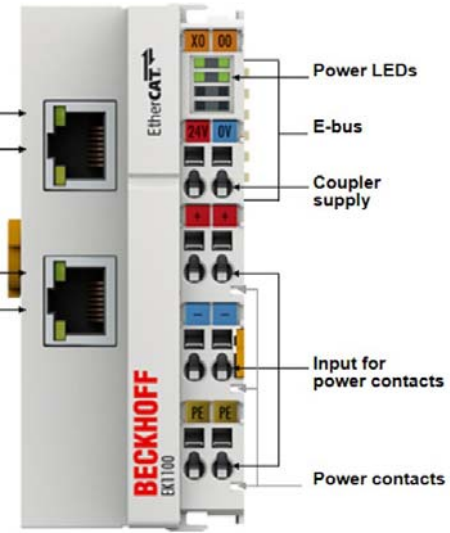
EK1100:

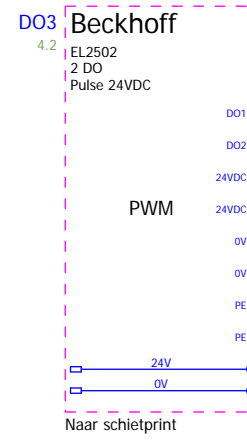
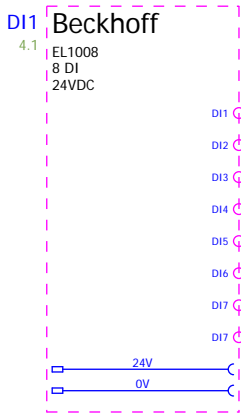
Link/Act In

Signal input EtherCAT

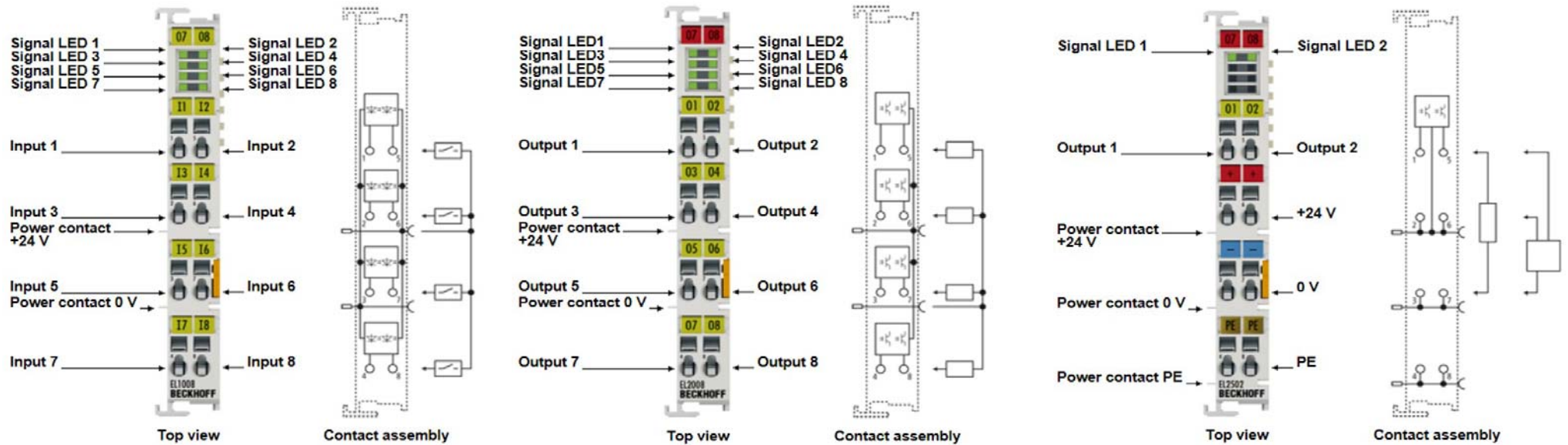
Link/Act Out

Signal output EtherCAT

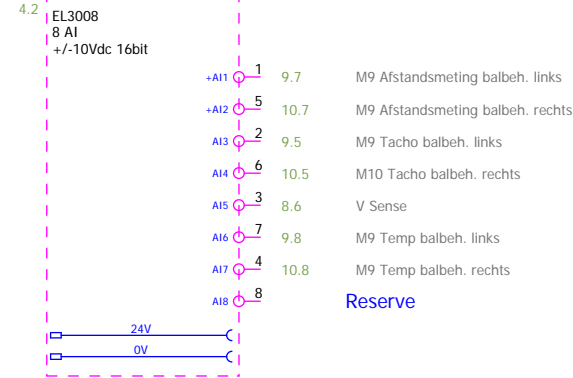




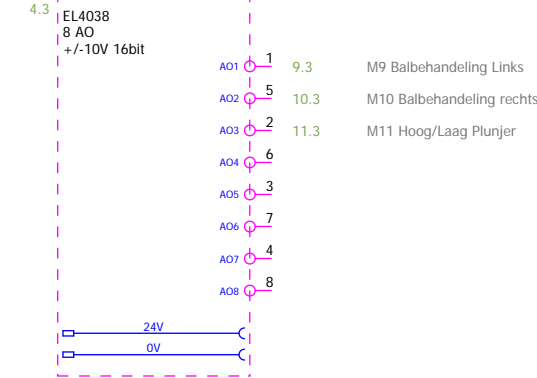
PLC overzicht in de praktijk:



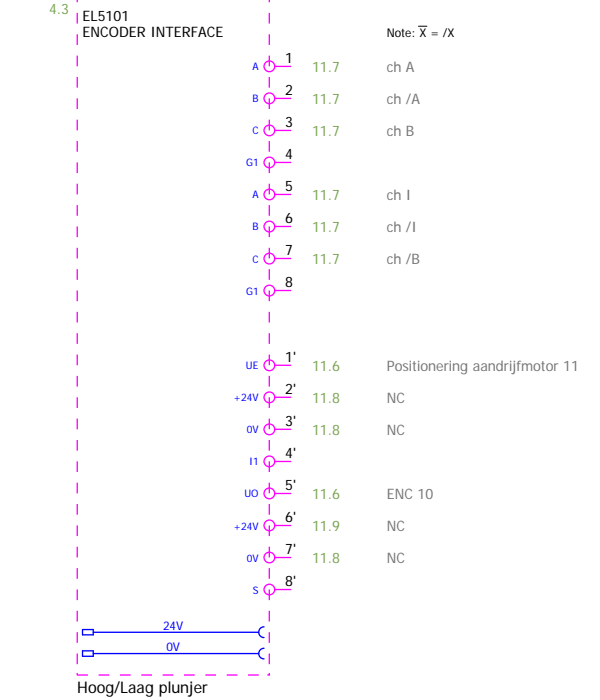
### A14 Beckhoff



### AO5 Beckhoff

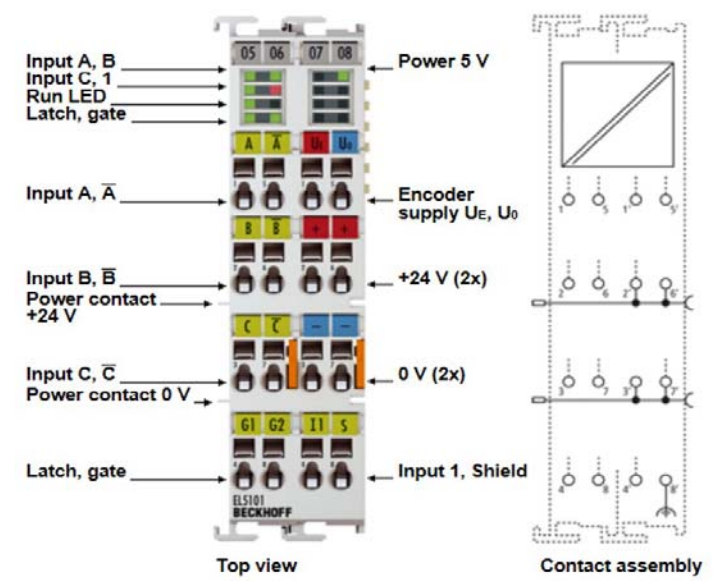
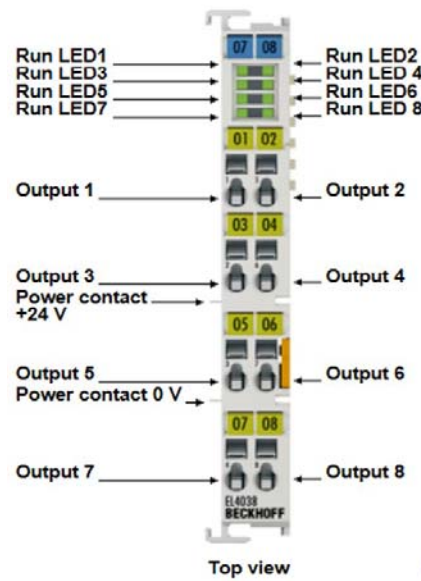
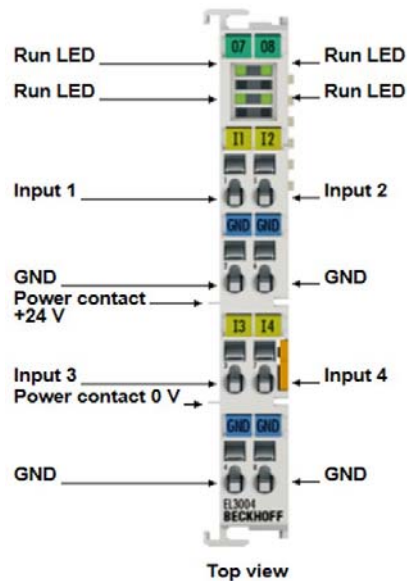


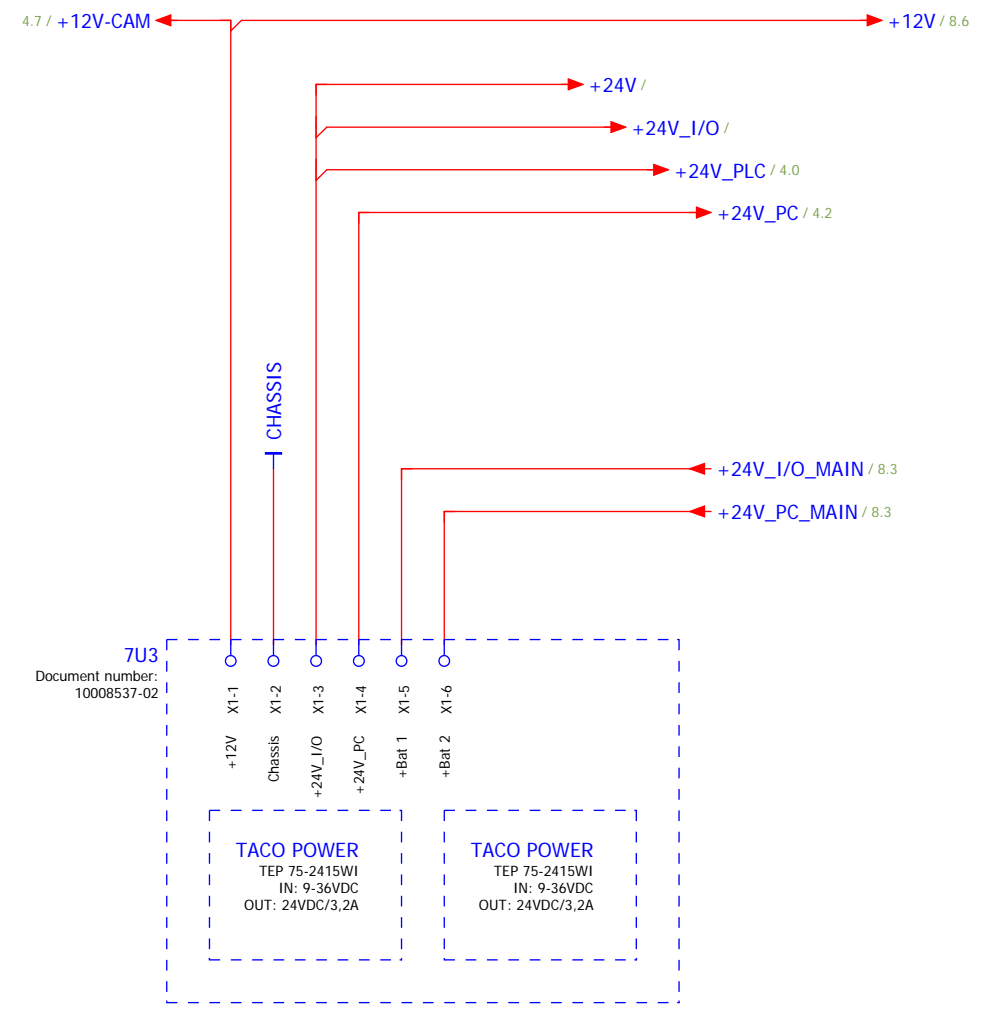
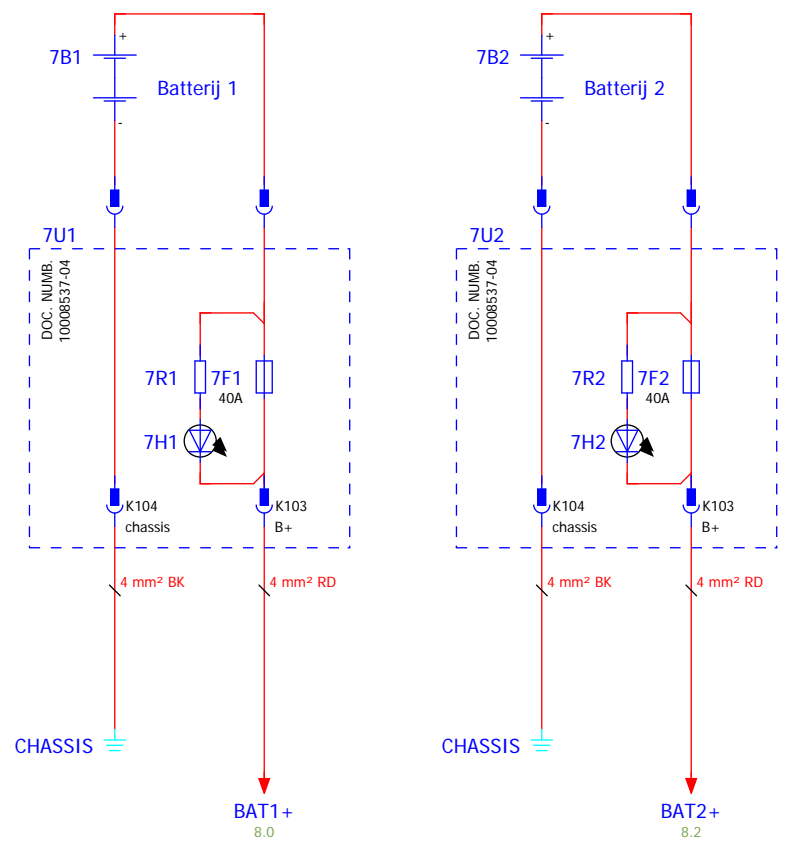
### ENC6 Beckhoff

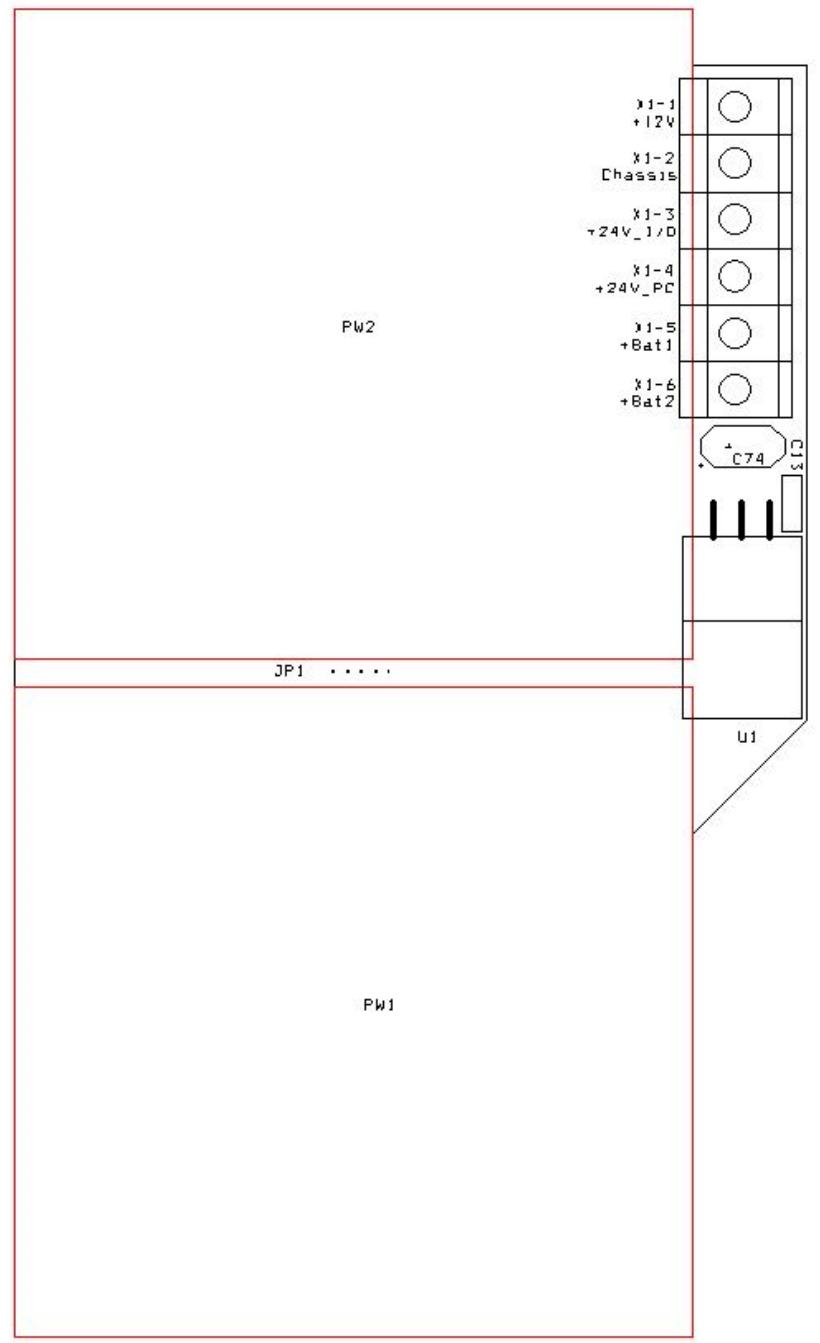


Note:  $\bar{X} = /X$

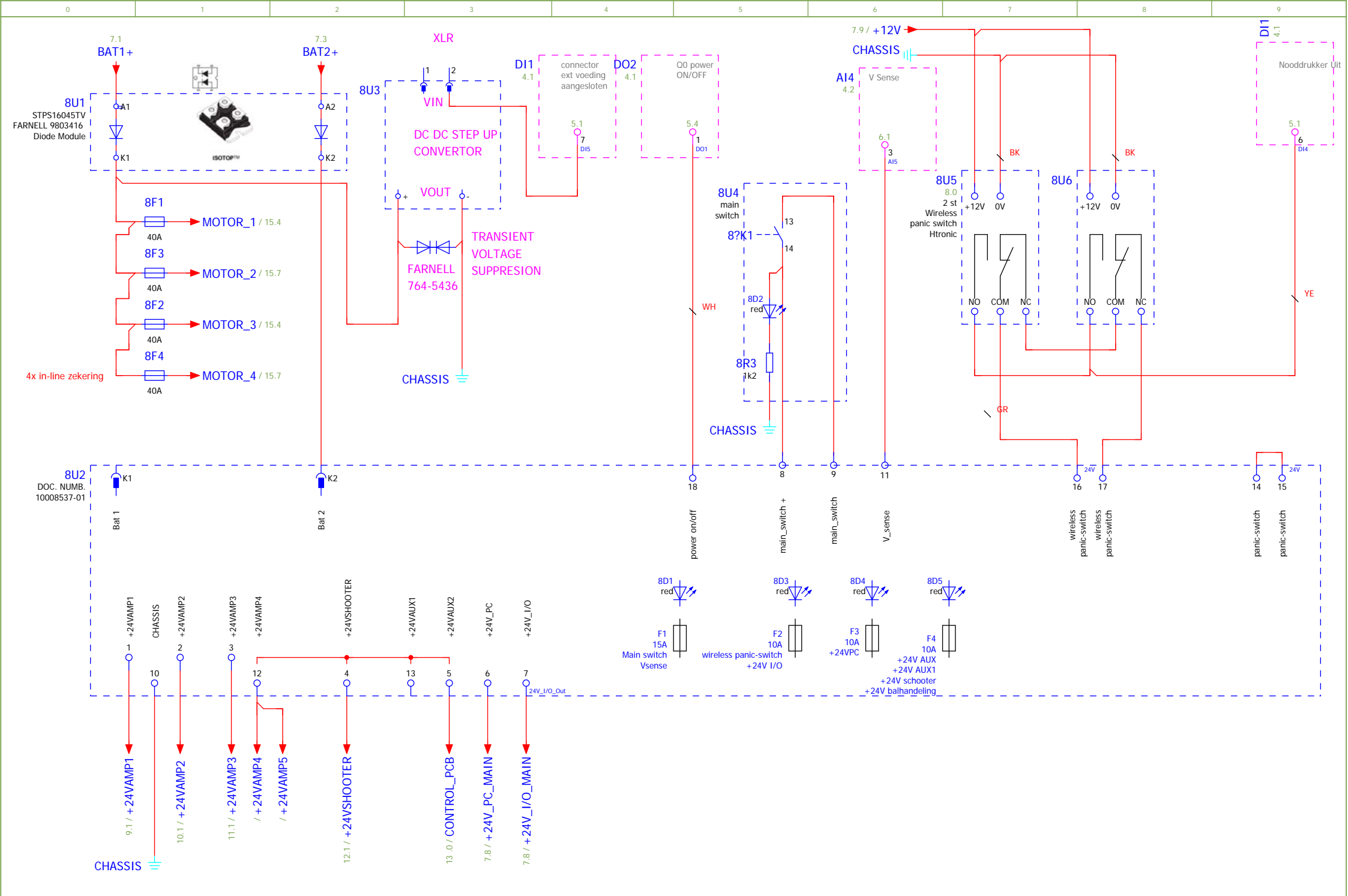
PLC overzicht in de praktijk:

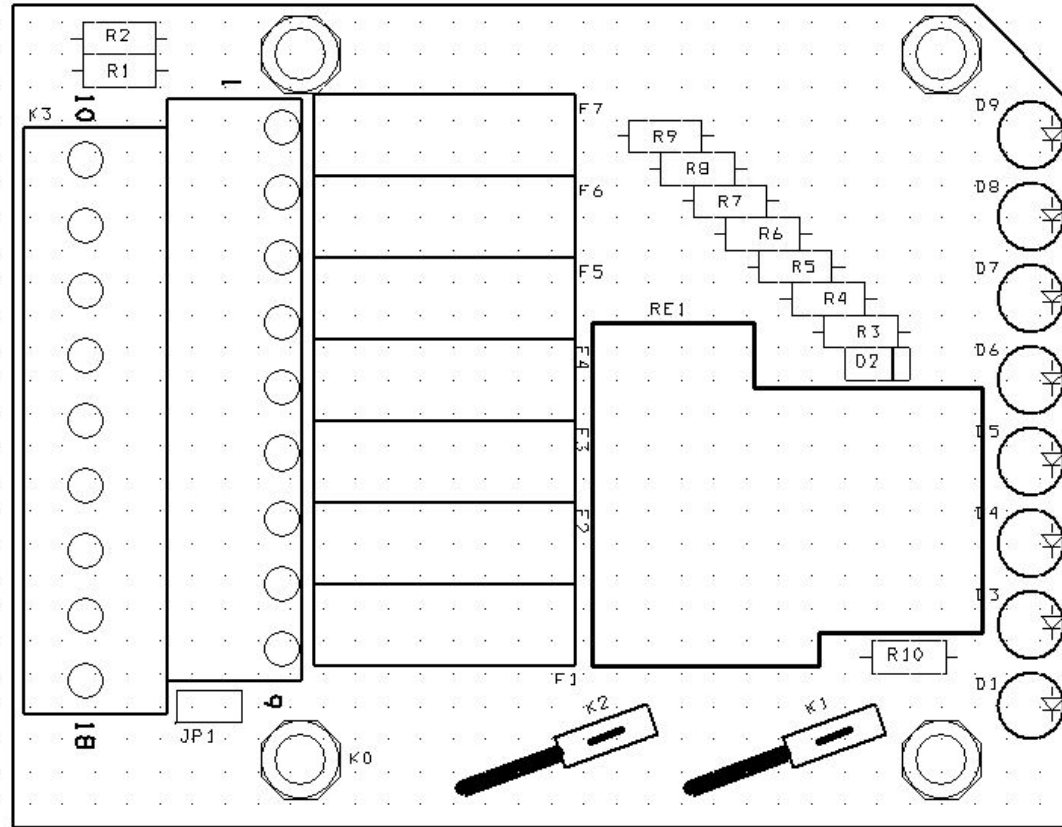


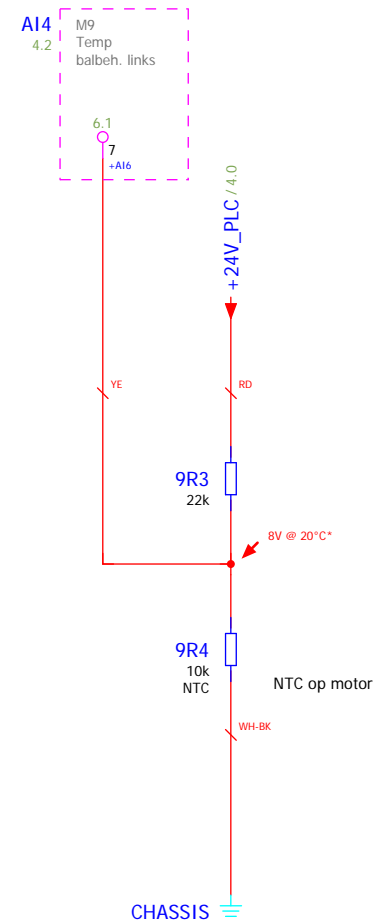
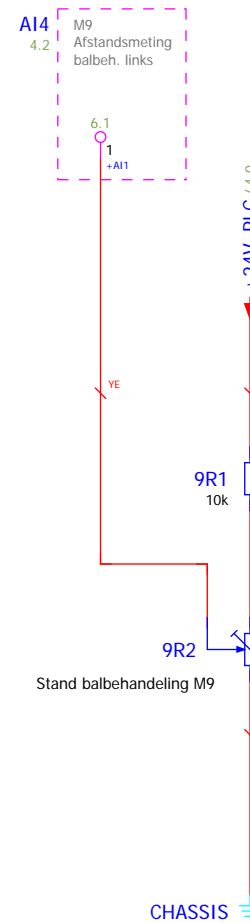
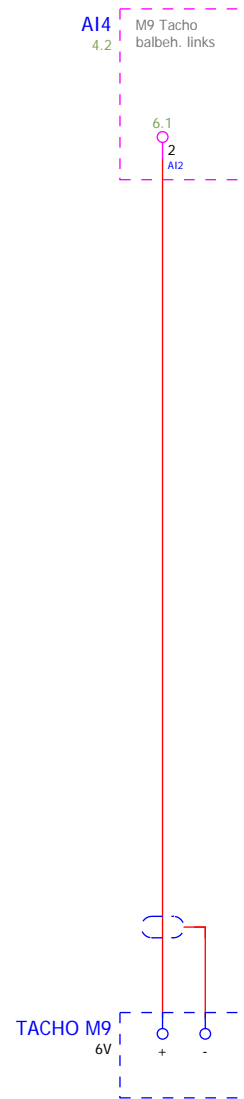
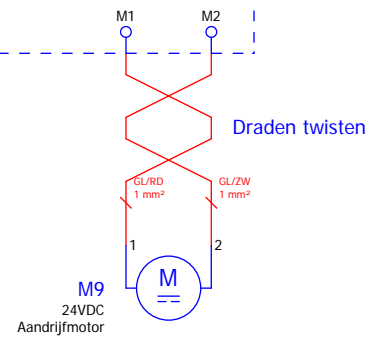
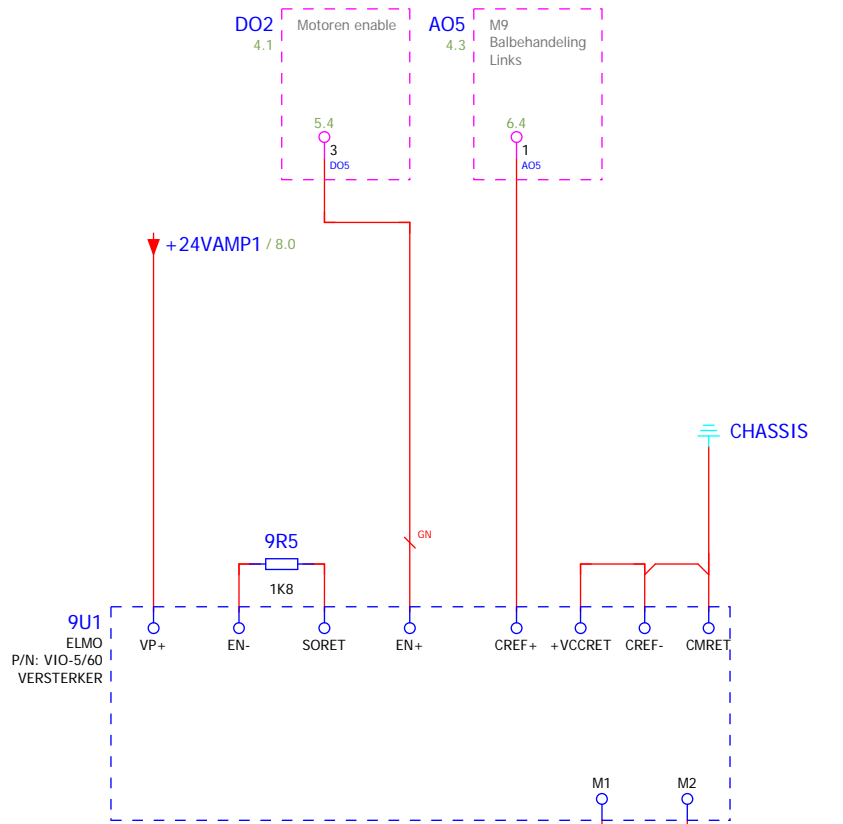




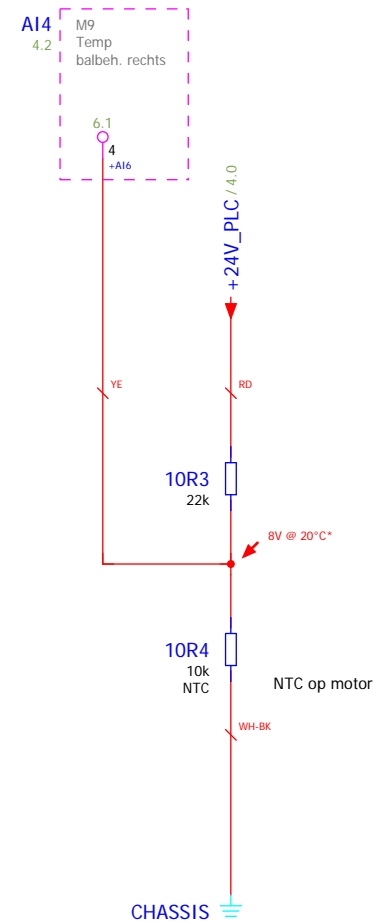
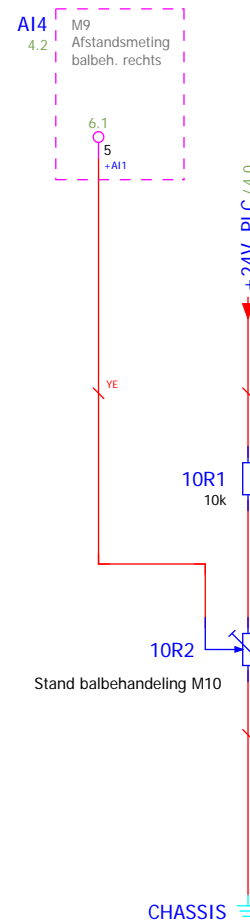
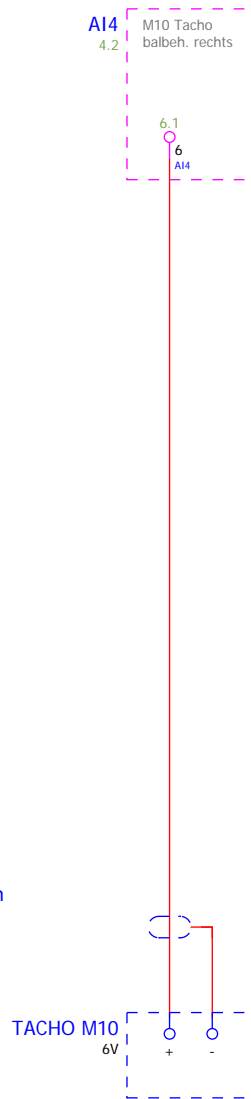
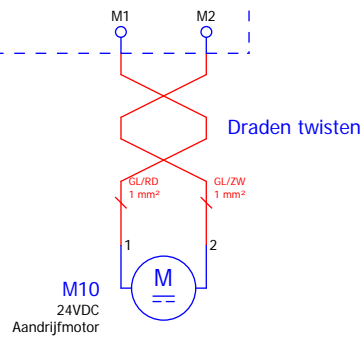
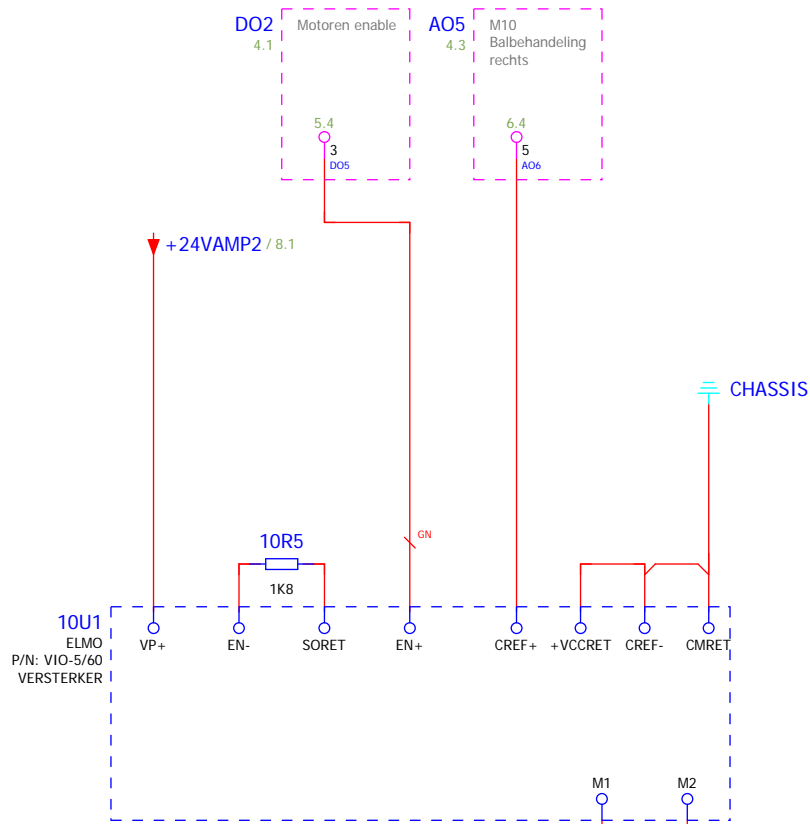




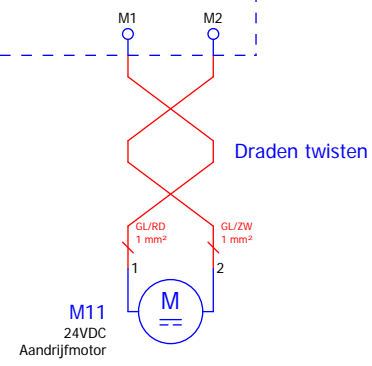
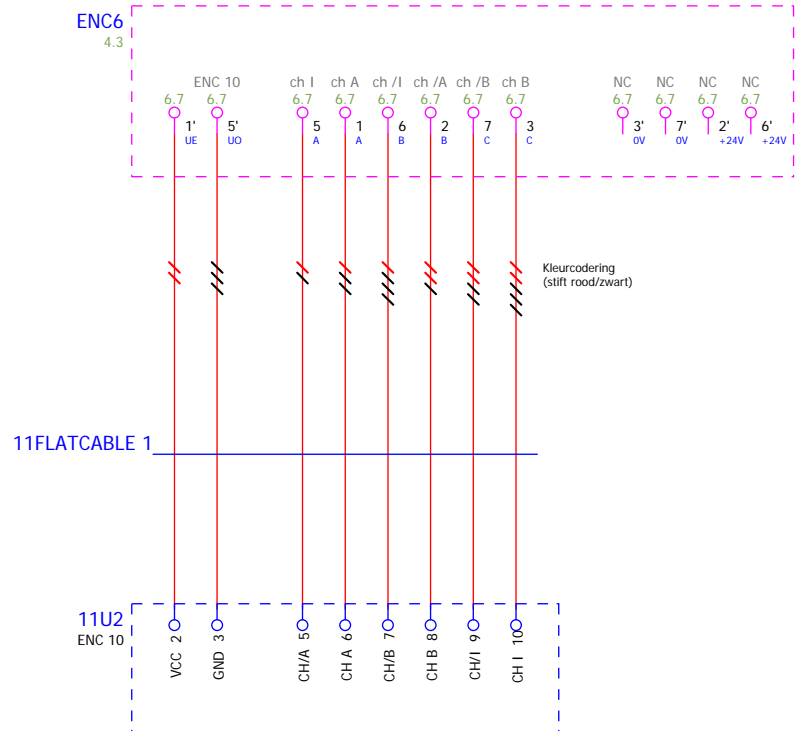
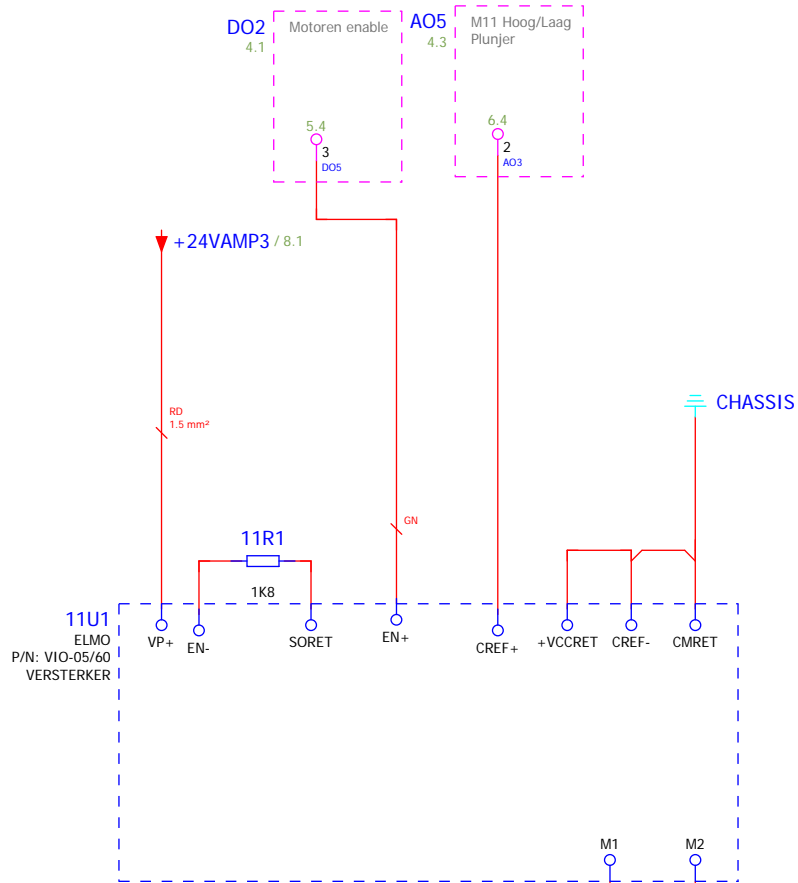




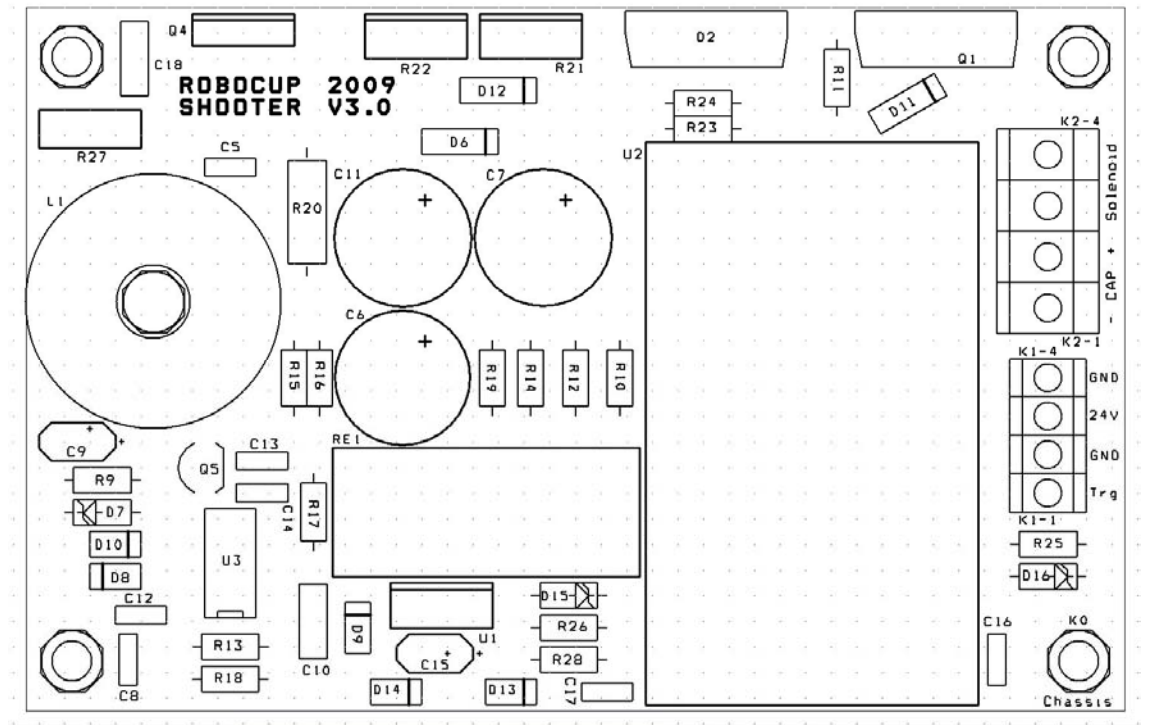
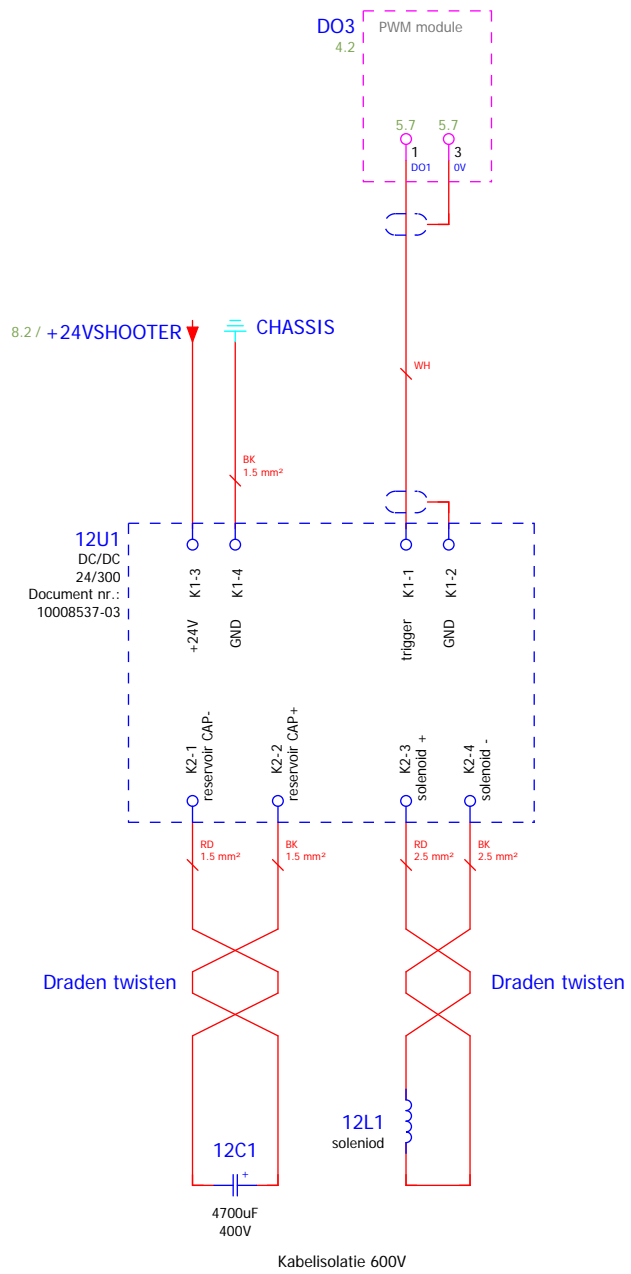
Balbehandeling M9

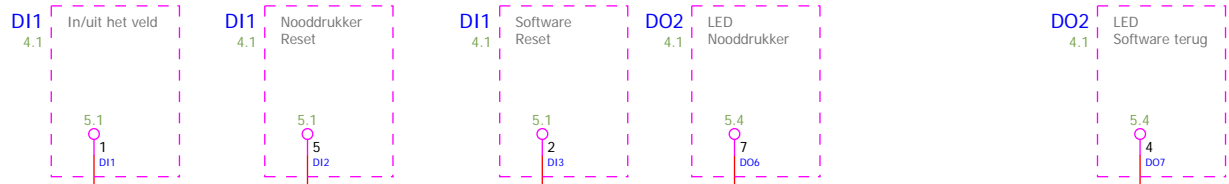


Balbehandeling M10



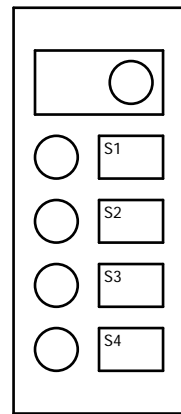
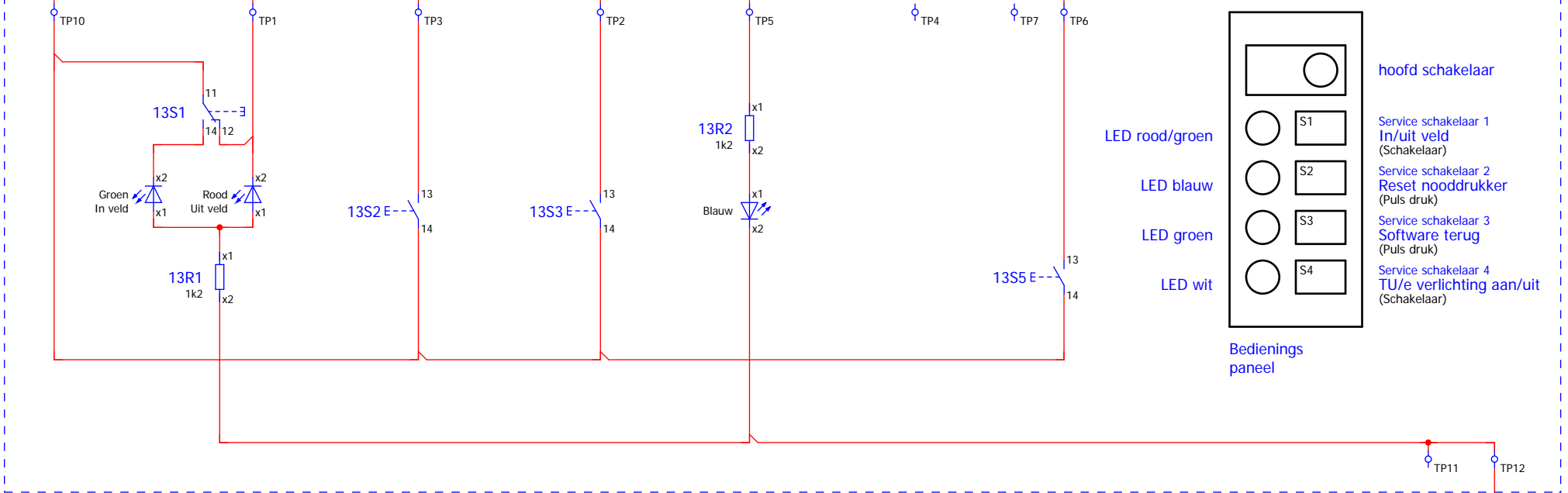
aandrijfmotor hoogteinstelling schietlepel





8.3  
CONTROL\_PCB

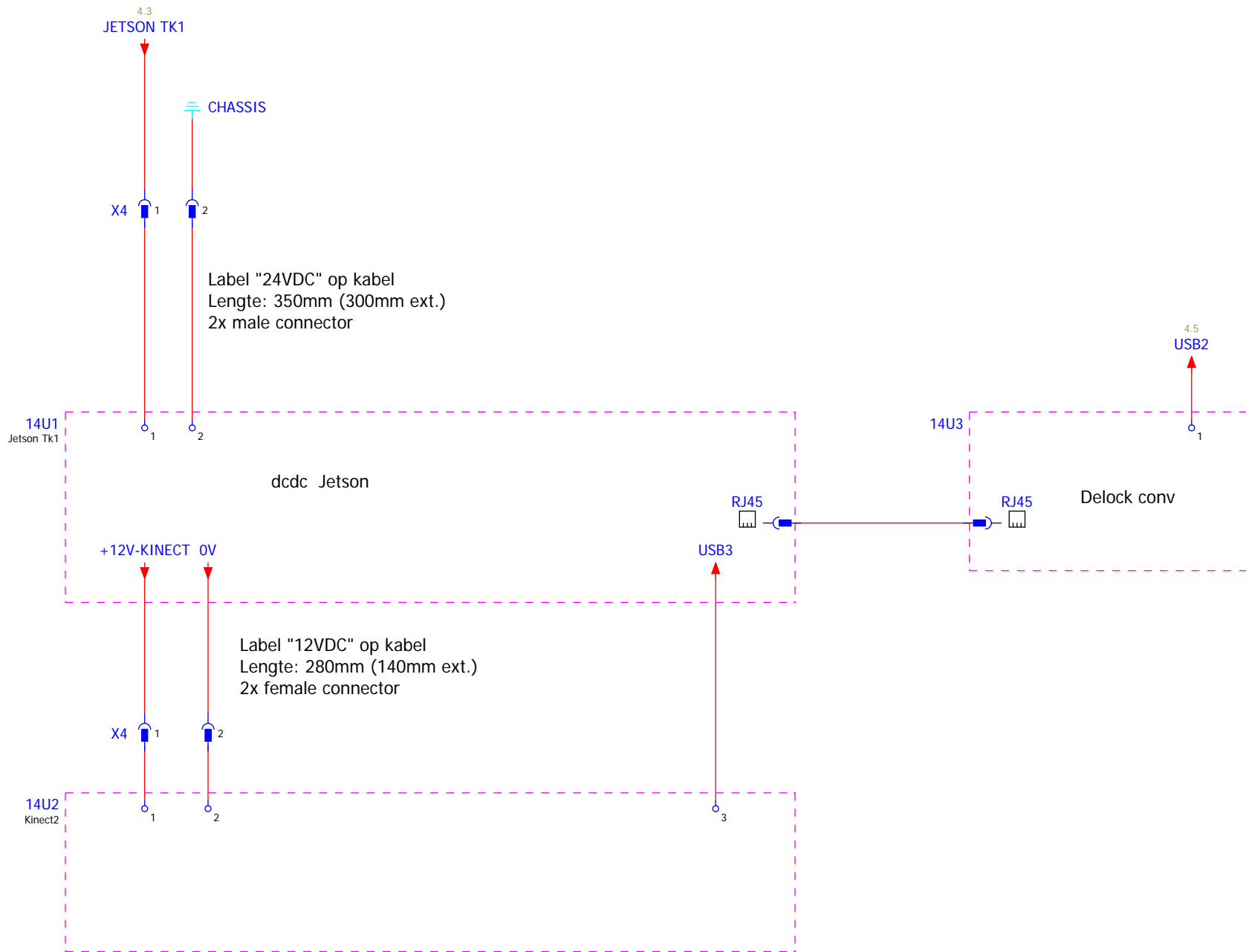
13U1  
Paneel  
GTD10010287



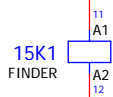
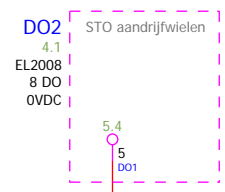
- hoofd schakelaar
- Service schakelaar 1  
In/uit veld  
(Schakelaar)
- Service schakelaar 2  
Reset nooddrukker  
(Puls druk)
- Service schakelaar 3  
Software terug  
(Puls druk)
- Service schakelaar 4  
TU/e verlichting aan/uit  
(Schakelaar)

Bedienings  
paneel

CHASSIS







CHASSIS

