

1 2 3 4 5 6 7 8

A

B

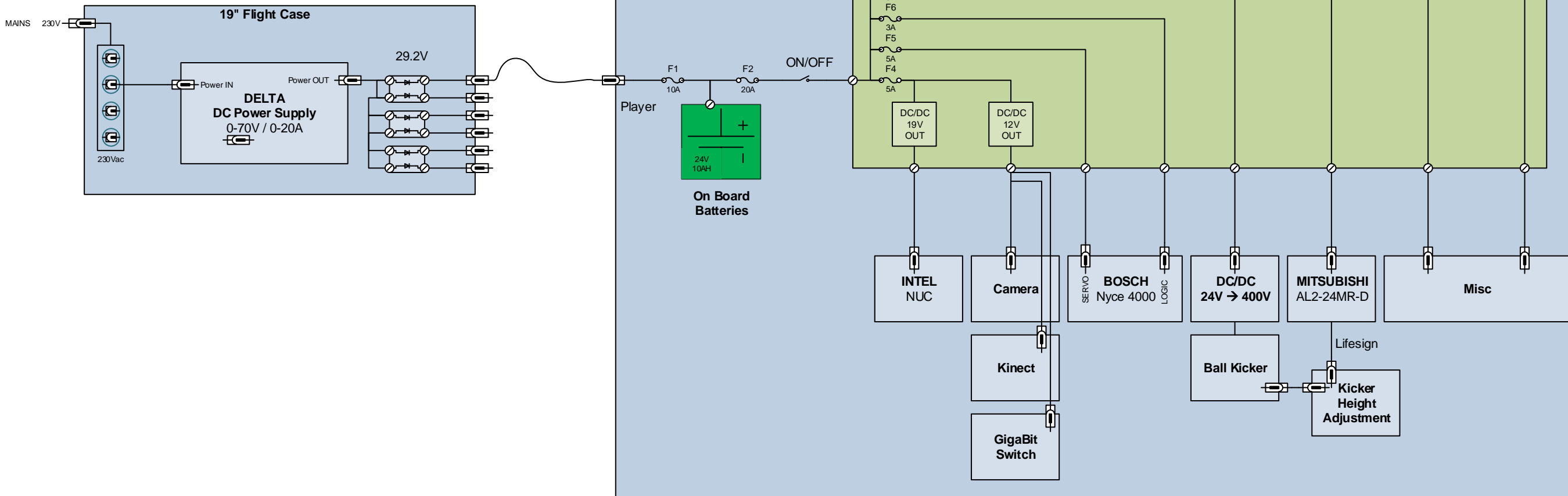
H

C

D

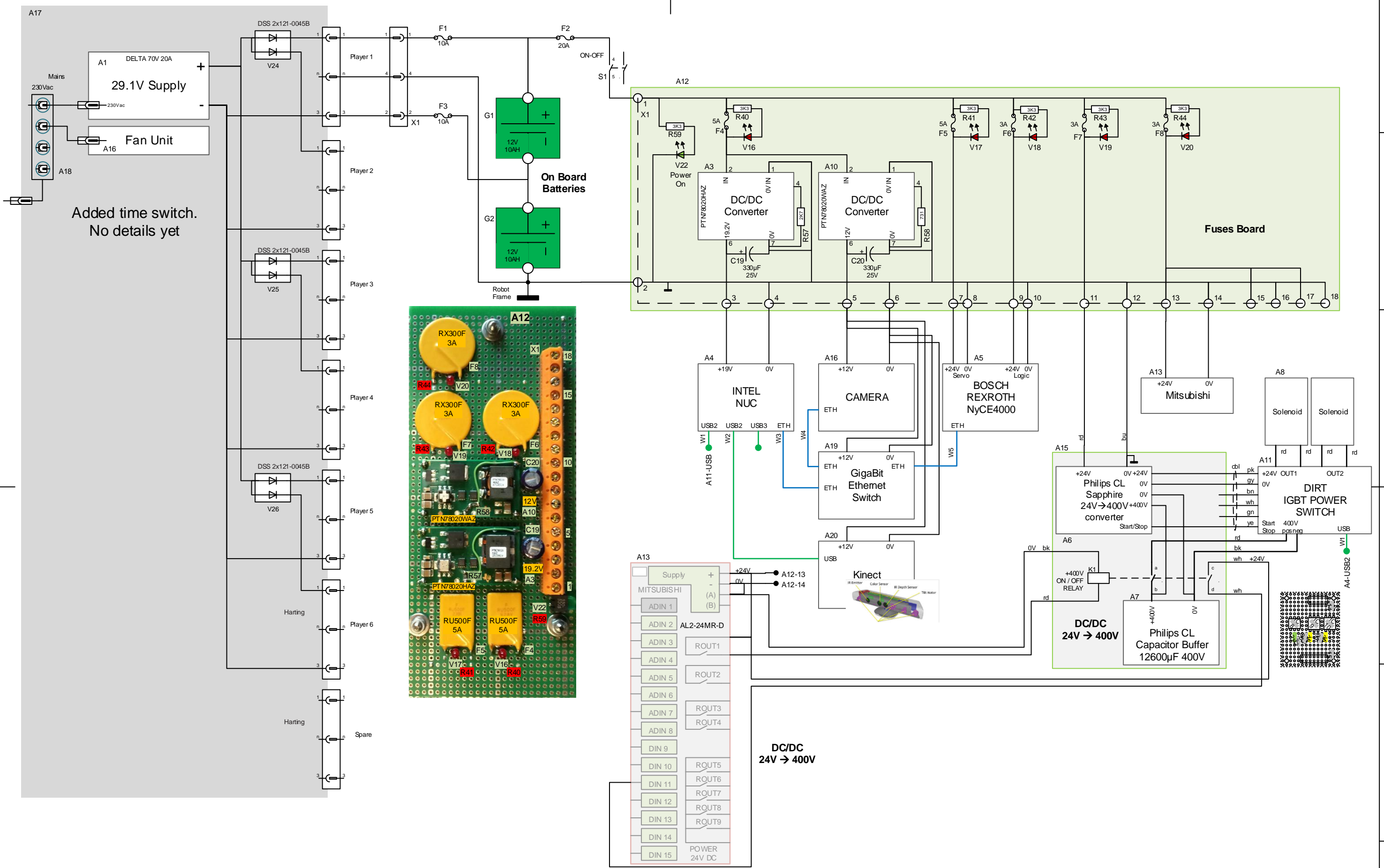
E

F

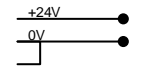


CLASS No		Power Distribution				DIRT_Player_Electronics_V11.vsd	
NAME Cor van der Klooster		SUPERS		SH		A3	
DATA FMT		PROGR		PLATF Visio 2010			
PINS	CHECK	DATE 5/13/2015		© DUTCH INDUSTRIAL ROBOCUP TEAM			

2 3 4 5 6 7 8



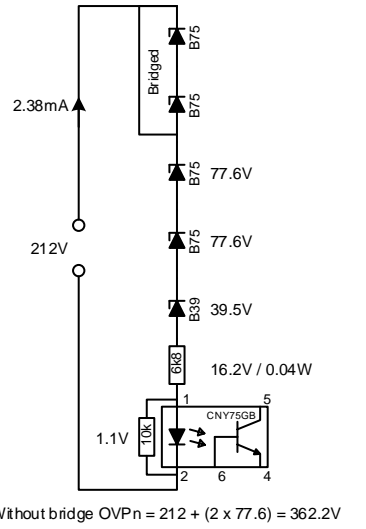
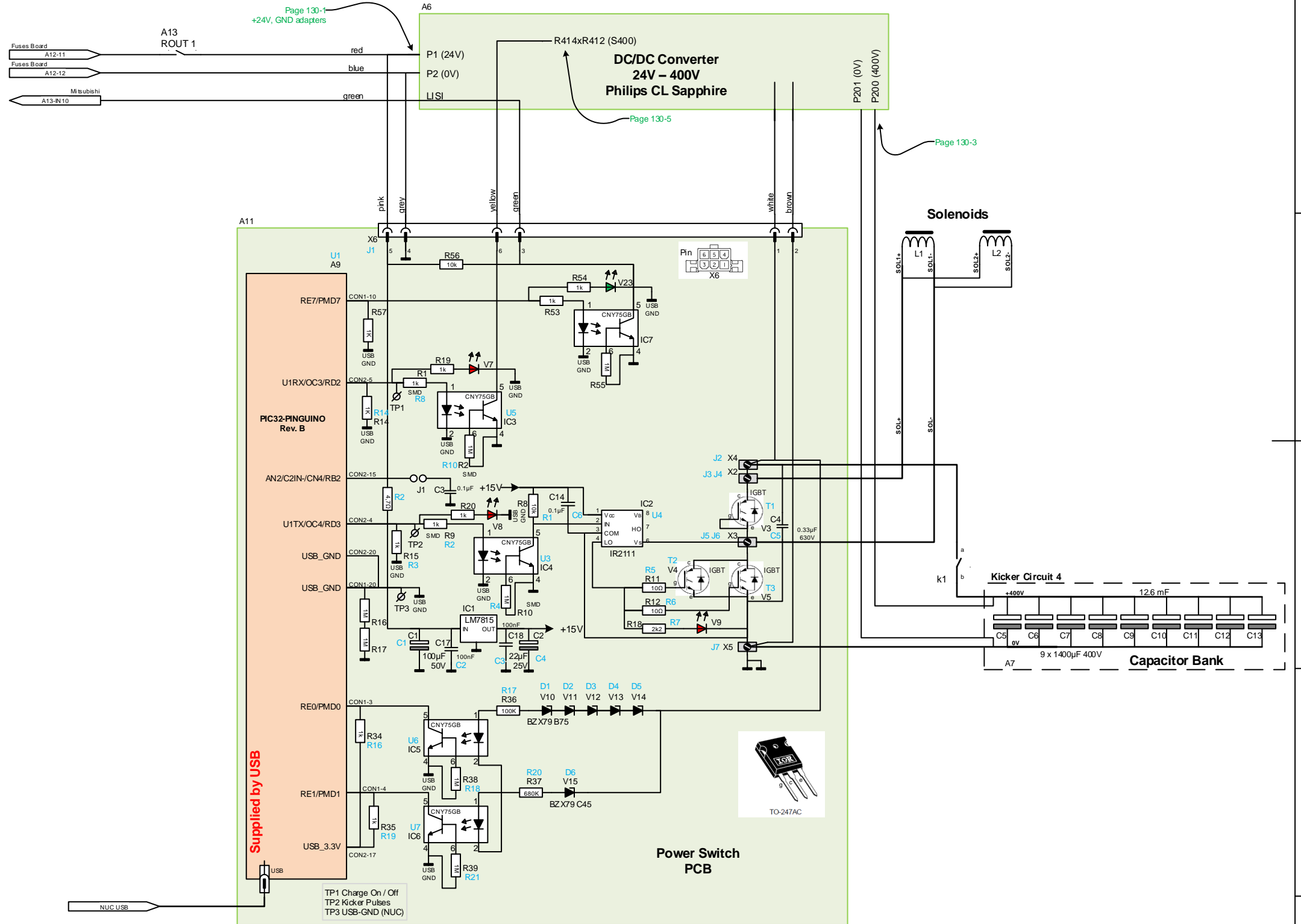
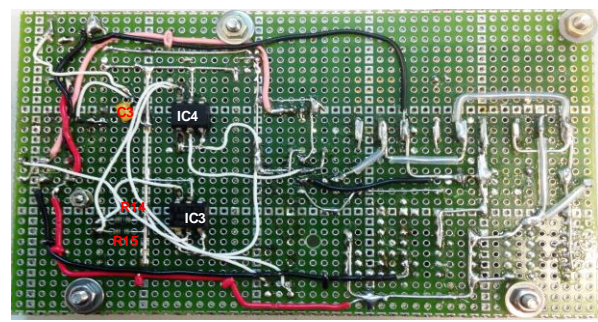
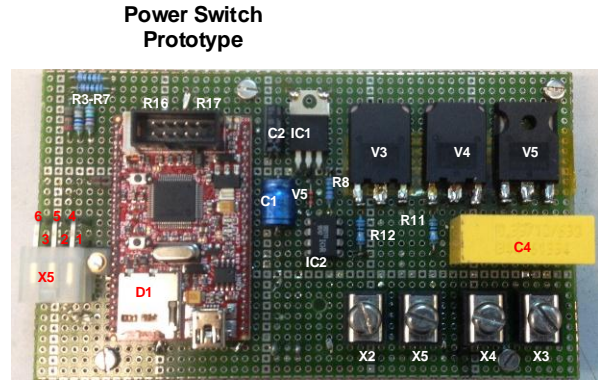
CLASS No		Player Power			
NAME Cor van der Klooster		SUPERS		A3	
DATA FMT		PROGR		PLATF Visio 2010	
PINS	CHECK	DATE 5/13/2015	© DUTCH INDUSTRIAL ROBOCUP TEAM		



Changes Sapphire Board
 (DIRT_Kicker_24V_To_400V_Converter_Saffire_Changes_V00.vsd)

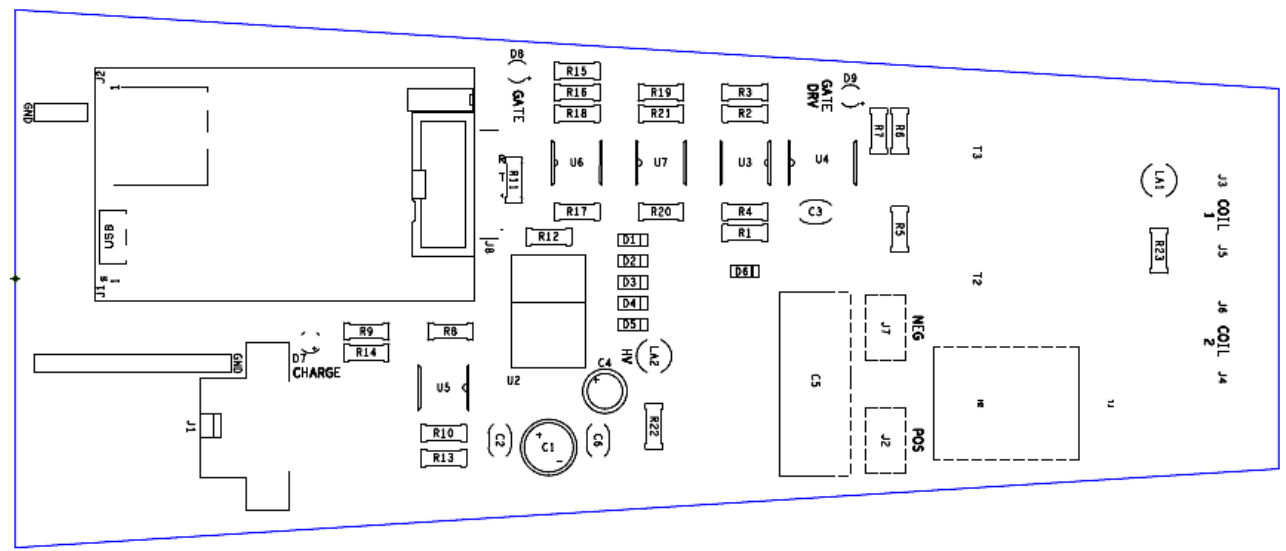
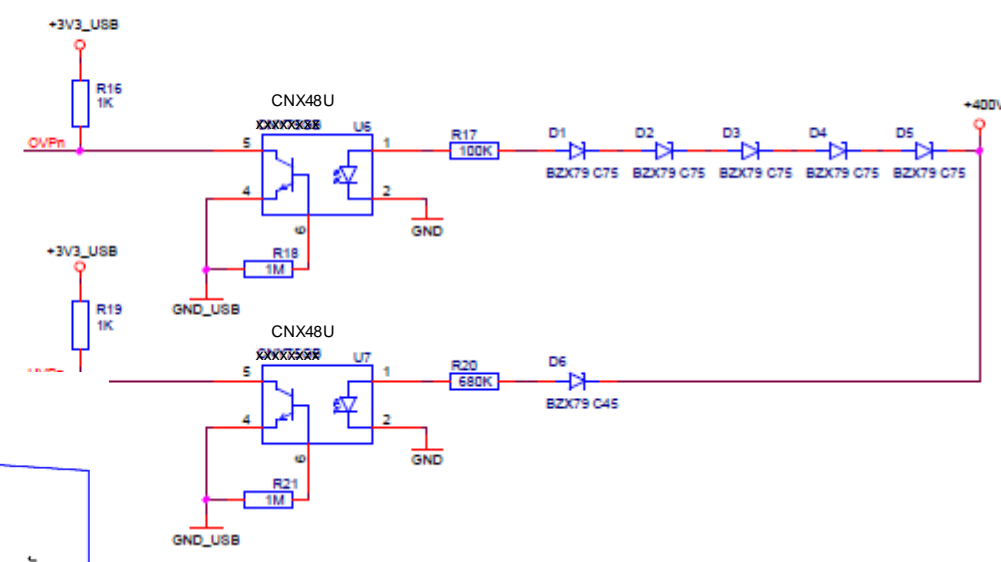
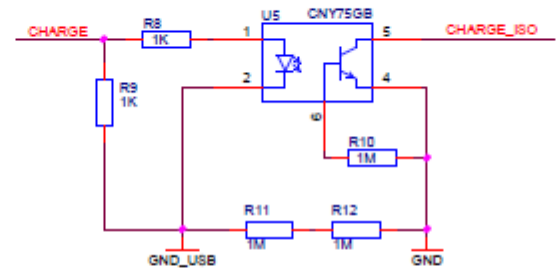
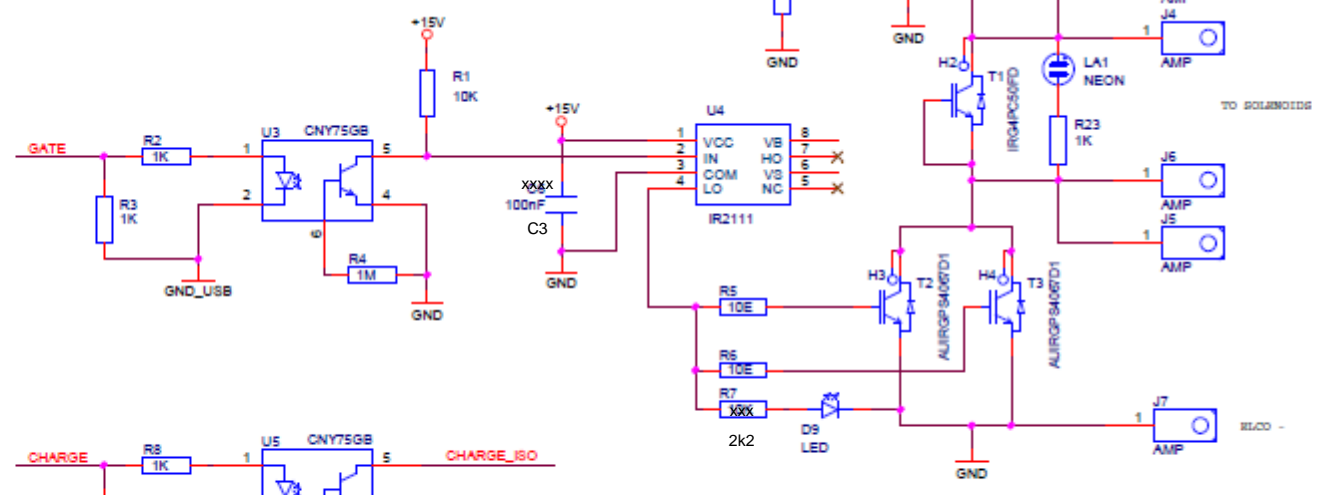
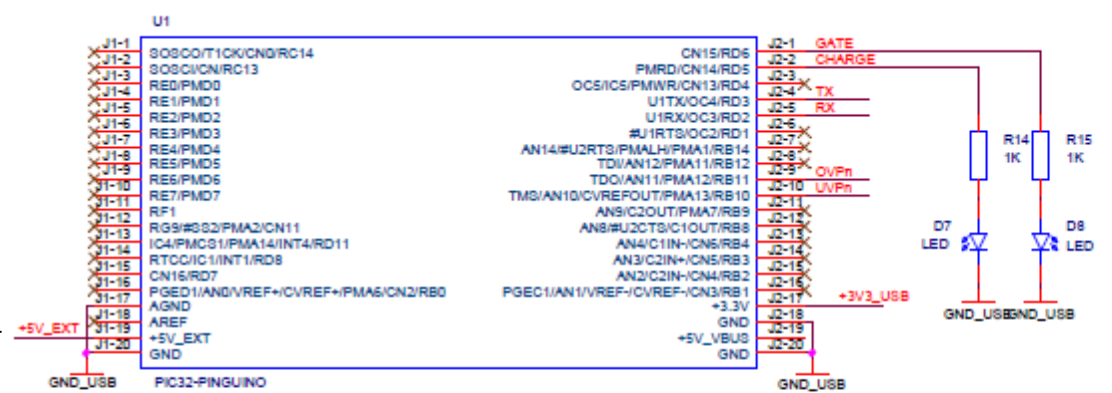
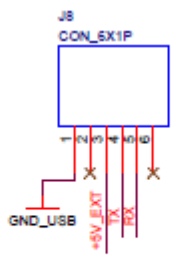
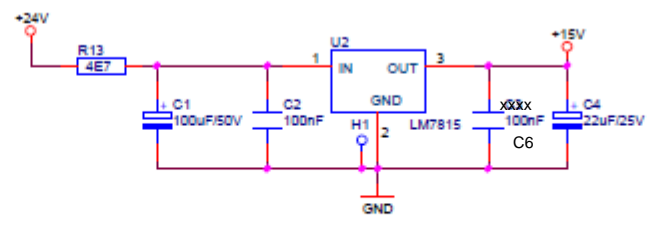
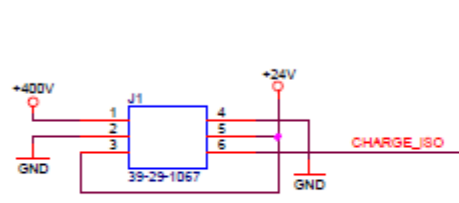
- C1: Connections P5 to start the controller (130-1)
- C2: R211 / R214 Resistance change charge current (130-3)
- C3: Disconnect pin 7 of Q203B to overrule charge time-out (130-3)
- C4: Remove capacitor C211 to avoid 800V electric shocks (130-3)
- C5: S400. Start from Robocup controller
- C6: R619 / Q606 must be bridged because of the increased charge current (130-6)
- C7: Remove T100 to avoid high voltage on connection screw (130-02)
- C8: Remove D100 to avoid high voltage on connection screw (130-02)

Prototype



CLASS No	Proto IGBT Power Switch				DIRT_Player_Electronics_V11.vsd			
NAME	Cor van der Klooster	SUPERS	SH					A3
DATA FMT		PROGR					PLATF Visio 2010	
PINS	CHECK	DATE 5/13/2015					© DUTCH INDUSTRIAL ROBOCUP TEAM	



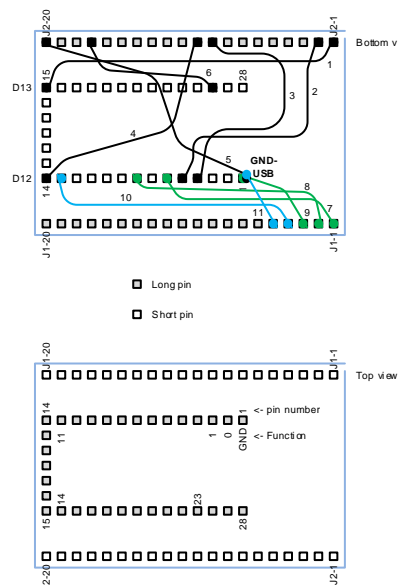


Corrections:

- C3 → C6
- C6 → C3
- U6 CNY75B → CNX48U
- U7 CNY75B → CNX48U
- R7 10K → 2K2



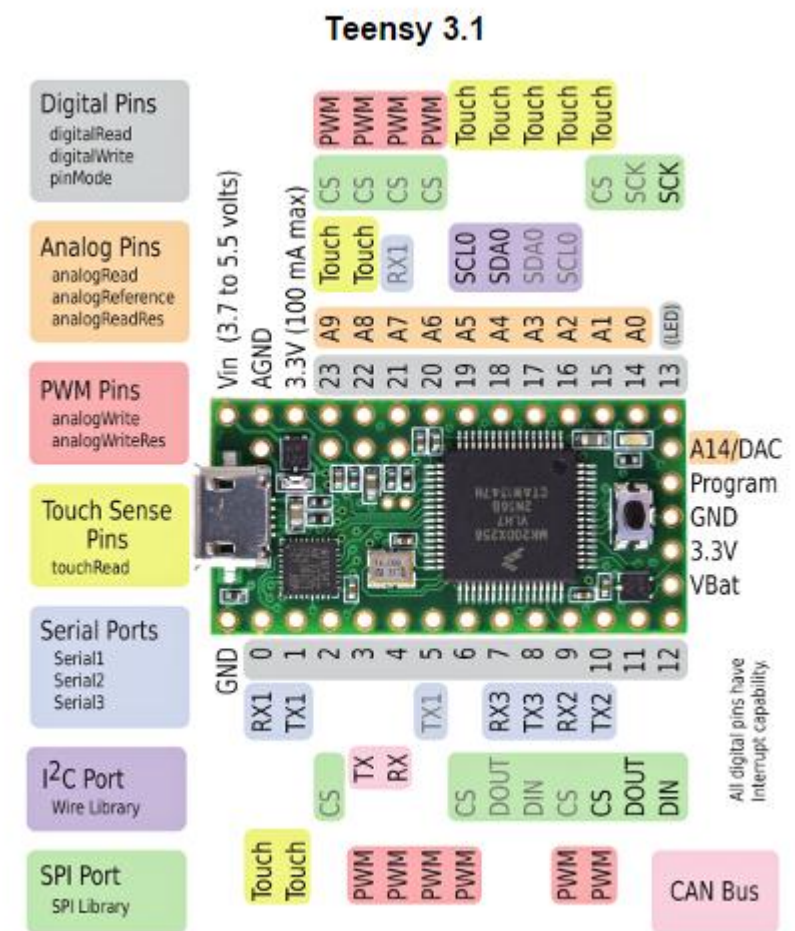
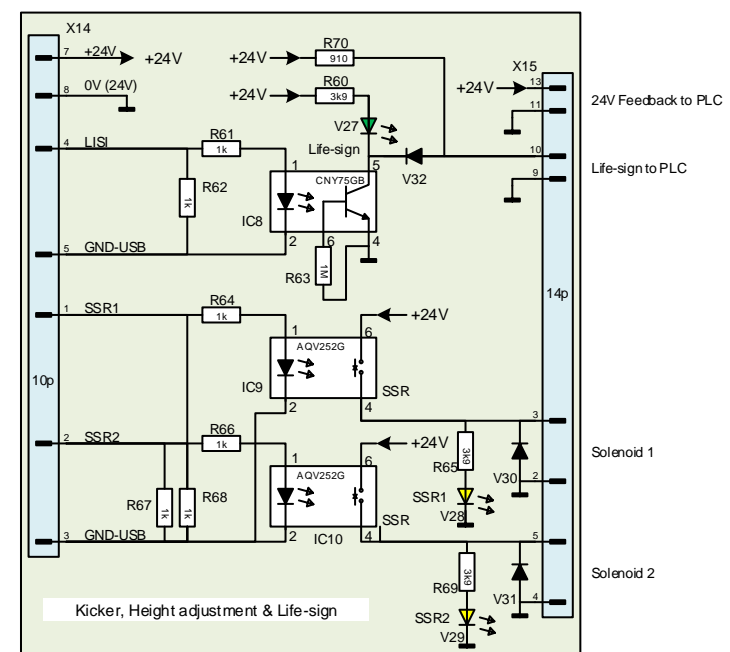
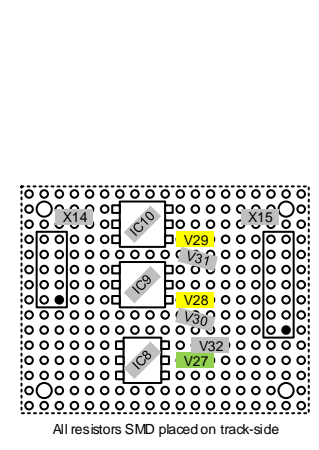
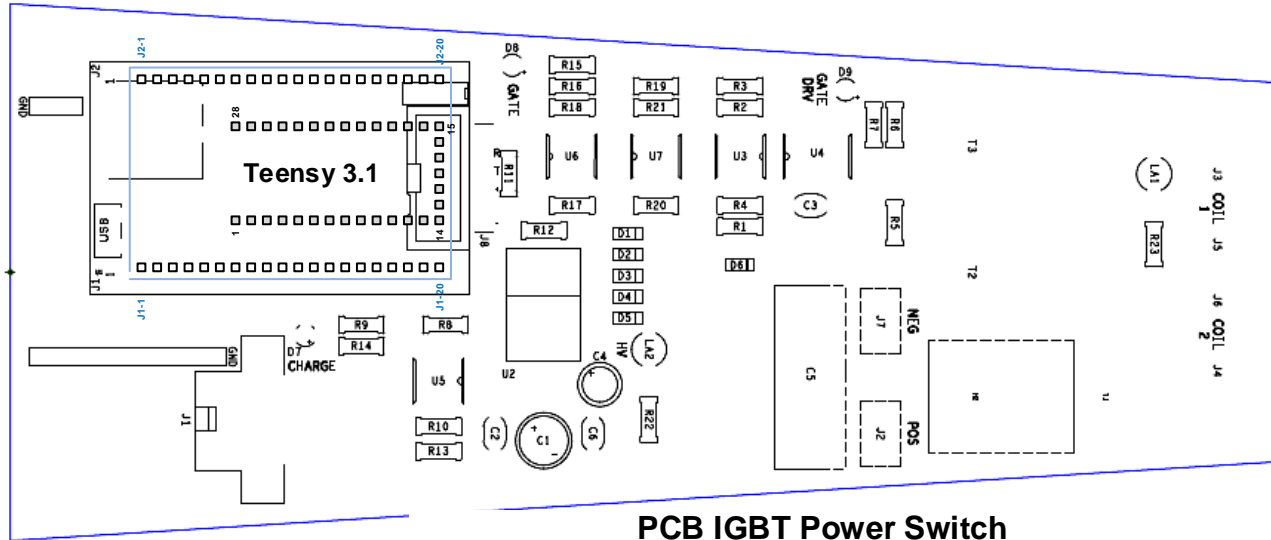
CLASS No	PCA IGBT Power Switch		DIRT_Player_Electronics_V11.vsd	
NAME	Cor van der Klooster	SUPERS	SH	A3
DATA FMT	PROGR		PLATF Visio 2010	
PINS	CHECK	DATE 5/13/2015	© DUTCH INDUSTRIAL ROBOCUP TEAM	



Ball Kicker						
Wire Color	Name Drawing	Name SW	Pinguino-Slot Pin	Teensy Slot Pin	Teensy Function	Comment or Function
1 wh	GATE	GATE	J2-1	15	D13	Led. Power switch ON/OFF
2 wh	CHARGE	CHARGE	J2-2	5	D3	Converter ON/OFF. Short ON, long OFF
3 wh	OVPn	OVERV	J2-9	4	D2	>385V = 1
4 wh	UVPn	UNDERV	J2-10	14	D12	>60V = 1
5 wh	GND-USB		J2-20	1	GND	Power supply
6 wh	3.3V-USB		J2-17	26	3.3V	Power supply

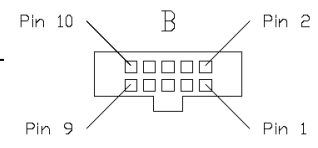
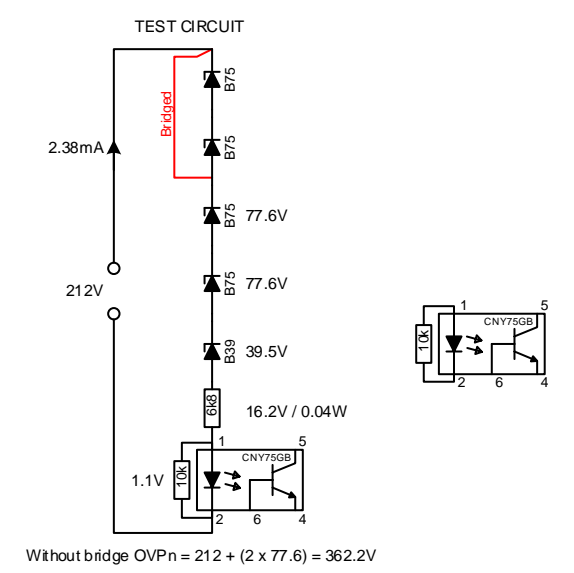
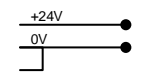
Ball Hight Adjuster						
Wire Color	Name Drawing	Name SW	Pinguino-Slot Pin	Teensy Slot Pin	Teensy Function	Comment or Function
7 gn	ELEV0	ELEV0	J1-1	6	D4	Kicker hight adjustment 0
8 gn	ELEV1	ELEV1	J1-2	8	D6	Kicker hight adjustment 1
9 gn	GND-USB		J1-3	1	GND	Power supply

Life Sign						
Wire Color	Name Drawing	Name SW	Pinguino-Slot Pin	Teensy Slot Pin	Teensy Function	Comment or Function
10 bu	ALIVE	ALIVE	J1-4	13	D11	Lifesign to Mitsubishi controller
11 bu	GND-USB		J1-5	1	GND	Power supply



Compass						
Wire Color	Name Drawing	Compass Name	Compass Pin	Teensy Slot Pin	Teensy Function	Comment or Function
wh	xx	CL	8	21 (19)	SCL0	
wh	xx	SDA	9	20 (18)	SDA0	
wh	xx	VCC	10	28 (26)	Vin	Power + (Vin?)
wh	xx	GND	11	1 (1)	GND	Power -

CLASS No	Teensy 3.1				DIRT_Player_Electronics_V11.vsd		
NAME	Cor van der Klooster	SUPERS	SH				A3
DATA FMT	PROGR			PLATF Visio 2010			
PINS	CHECK	DATE 5/13/2015	© DUTCH INDUSTRIAL ROBOCUP TEAM				

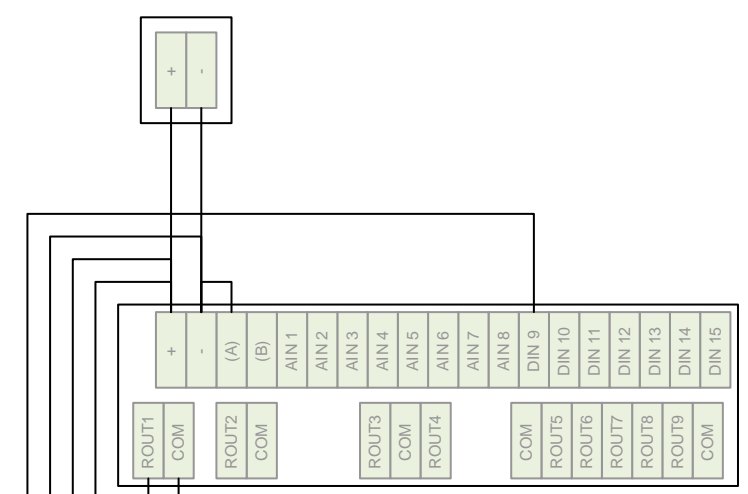
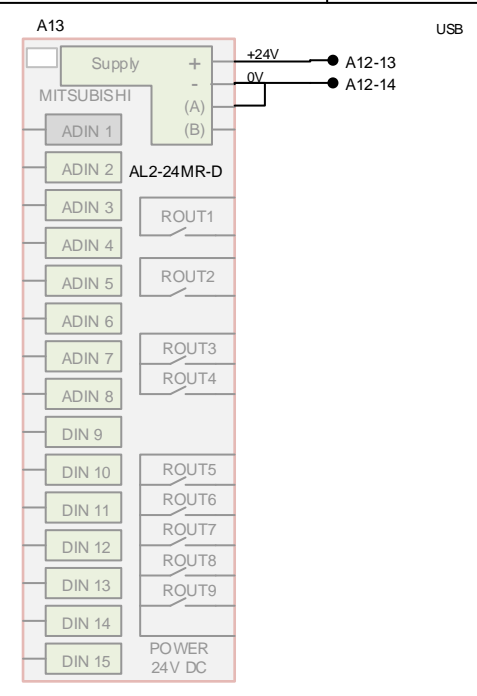
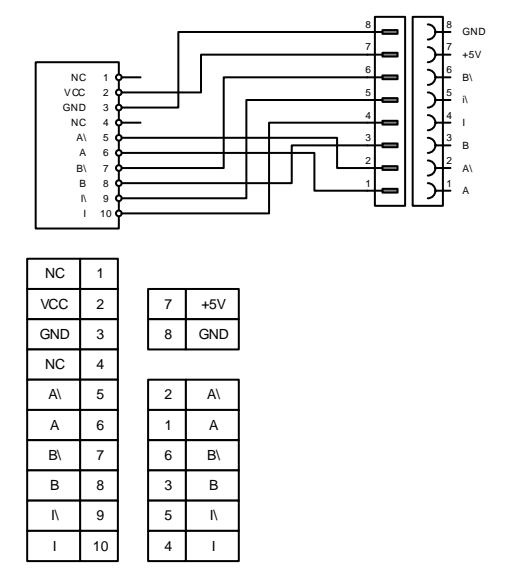


Stecker Typ Sensor
sensor connector type

2.54mm Federleiste/pin header

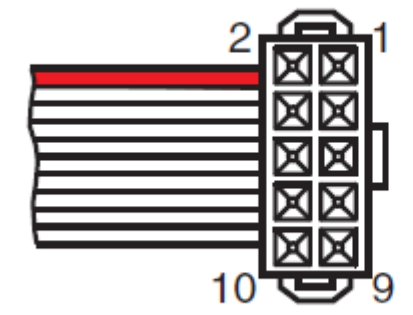
Pinbelegung
pin allocation

Pin 1	Nicht verbinden do not connect
Pin 2	VCC
Pin 3	GND
Pin 4	Nicht verbinden do not connect
Pin 5	Kanal A \\ channel A \
Pin 6	Kanal A channel A
Pin 7	Kanal B \\ channel B \
Pin 8	Kanal B channel B
Pin 9	Kanal I \\ channel I \
Pin 10	Kanal I channel I

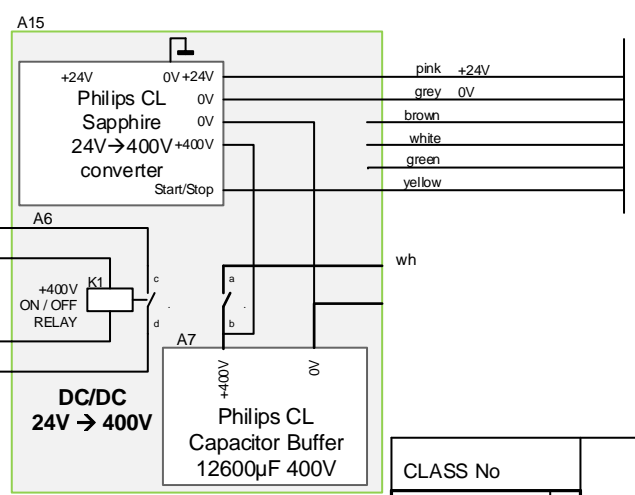


Bosch N/Ce 4000	Maxon Encoder Drive	HEDL 5540 Encoder Ball Handler	
GND	8	GND	3
+5V	7	VCC	2
BI	6	BI	7
I	5	I	9
I	4	I	10
B	3	B	8
AI	2	AI	5
A	1	A	6

Pin Allocation



- 1 N.C.
 - 2 Vcc
 - 3 GND
 - 4 N.C.
 - 5 Channel A
 - 6 Channel A
 - 7 Channel B
 - 8 Channel B
 - 9 Channel I (Index)
 - 10 Channel I (Index)
- Pin type Berg 246770
flat band cable AWG 28



CLASS No	Misc. Info				DIRT_Player_Electronics_V11.vsd			
NAME	Cor van der Klooster	SUPERS	SH					A3
DATA FMT	PROGR				PLATF Visio 2010			
PINS	CHECK	DATE 5/13/2015	© DUTCH INDUSTRIAL ROBOCUP TEAM					

