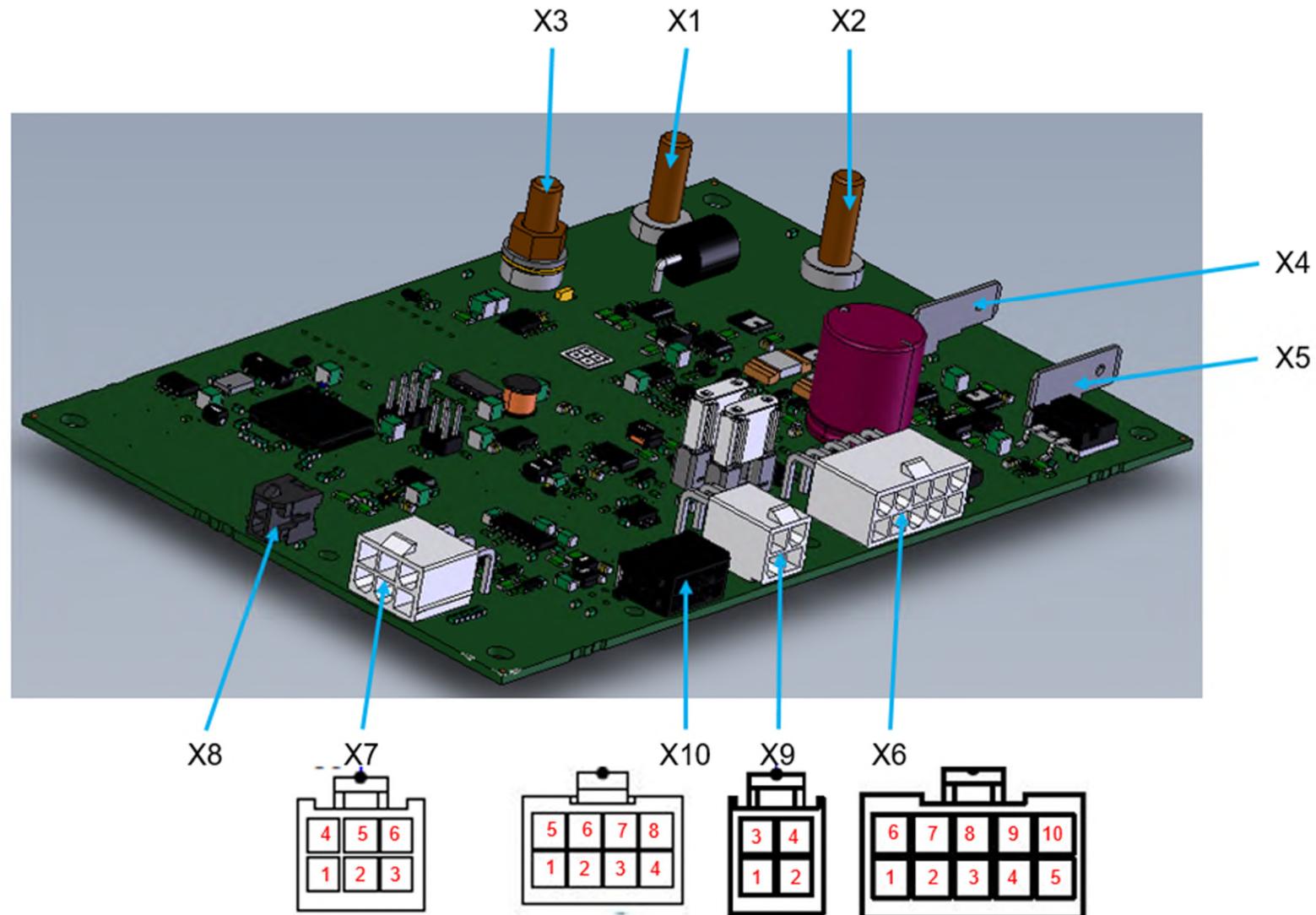


3.3 PIN Assignment A1 and A2

Controller A1

Plug	Supplier Description	Hako-Controller description	Remarks
1	VGND	Virtual ground too X100 (Chassis)	Connection by circuit board fixing
X1	Batt +	Power input (24V) PLUS from battery G1 PLUS and potential distributor (24V) via F1 and W3/XS3 too A1/X6PIN6 and A20/PIN1	
X2	GND	Power input (24V) GND from battery G1 MINUS and potential distributor (GND) via W3/XS1 too A1/X6PIN1 as well X4PIN2 (too M2/N) and A20/PIN6	
X3	not used	/	
X4	Power 1	Output brush motor 24V PLUS too M3/(P/1)	
X5	Power 2	Outputsuction motor 24V PLUS via plug X4/PIN1 too M2/P	
X6/1	GND	Input control (voltage) GND from A1/X2 via W3/XS1	
X6/2	not used	/	
X6/3	not used	/	
X6/4	CAN_H	CAN-Bus HIGH via W3/XS4 and X2PIN1 too G1/C-H as well A20/PIN5	
X6/5	not used	/	
X6/6	Batt +	Input control voltage (24V) PLUS from A1/X1 via F1 and W3/XS3	
X6/7	OUT_PWR	Output 24V too A20/PIN2	
X6/8	not used	/	
X6/9	CAN_L	CAN-Bus LOW via W3/XS5 and X2PIN2 too G1/C-L as well A20/PIN10	
X6/10	not used	/	
X7/1	DGND1	GND supply thermo switch M3	
X7/2	not used	/	
X7/3	not used	/	
X7/4	DIGIN1	Power supply and input measurement thermo switch M3	
X7/5	not used	/	
X7/6	not used	/	
X9/1	GNDI1	GND supply water valve	
X9/2	not used	/	
X9/3	Load1	Voltage supply water valve (pulsed ON-OFF)	
X9/4	not used	/	
X10/1	Batt+_OUT	24V PLUS supply for A2/X1PIN14	
X10/2	D-GND	GND(24V)supply for A2/X1 PIN13	
X10/3	+5V ext.	5V supply for A2/X1PIN12	
X10/4	TX	Serial communication input from A2/X1PIN8	
X10/5	GND ext.	GND (5V) supply for A2/X1PIN10	
X10/6	RX	Serial communication output too A2/X1PIN7	
X10/7	not used	/	
X10/8	PWRCTRL1	Signal input (START/STOPP) from A2/X1PIN9	



Dash board A2

Plug	Supplier Description	Hako-Controller description	Remarks
X1/1	not used	/	
X1/2	not used	/	
X1/3	not used	/	
X1/4	not used	/	
X1/5	not used	/	
X1/6	not used	/	
X1/7	TX	Serial communication input from A1/X10PIN6	
X1/8	RX	Serial communication output too A1/X10PIN4	
X1/9	PWRCTRL1	Signal output (START/STOPP) too A1/X10PIN8	
X1/10	GND-ext	GND (5V) supply from A1/X10PIN5	
X1/11	not used	/	
X1/12	+5V-ext IN	5V supply from A1/X10PIN3	
X1/13	GND Batt	GND (24V) supply from A1/X10PIN2	
X1/14	24V IN	24V supply from A1/X10PIN1	
X4/1	DIG IN1	Switching ground (NC; operated) from S2/PIN4	
X4/2	not used	/	
X4/3	DIG IN2	Switching ground (NO; not operated) from S2/PIN2	
X4/4	DIG GND	GND too switch S2/PIN1 (switching input signal)	

