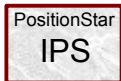
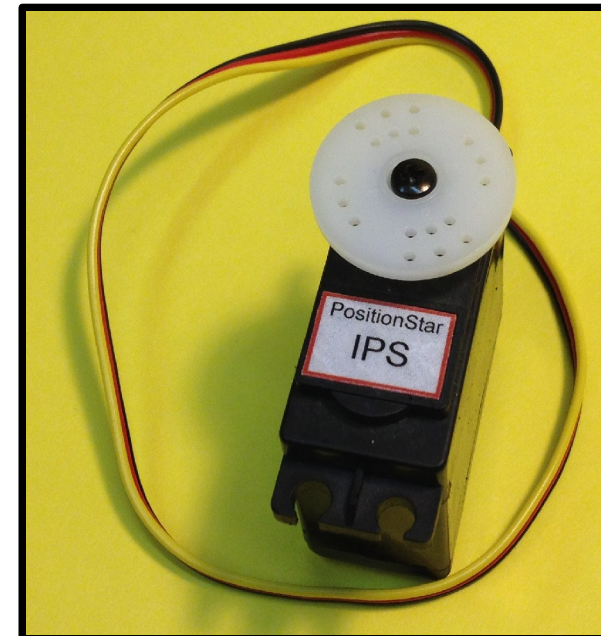
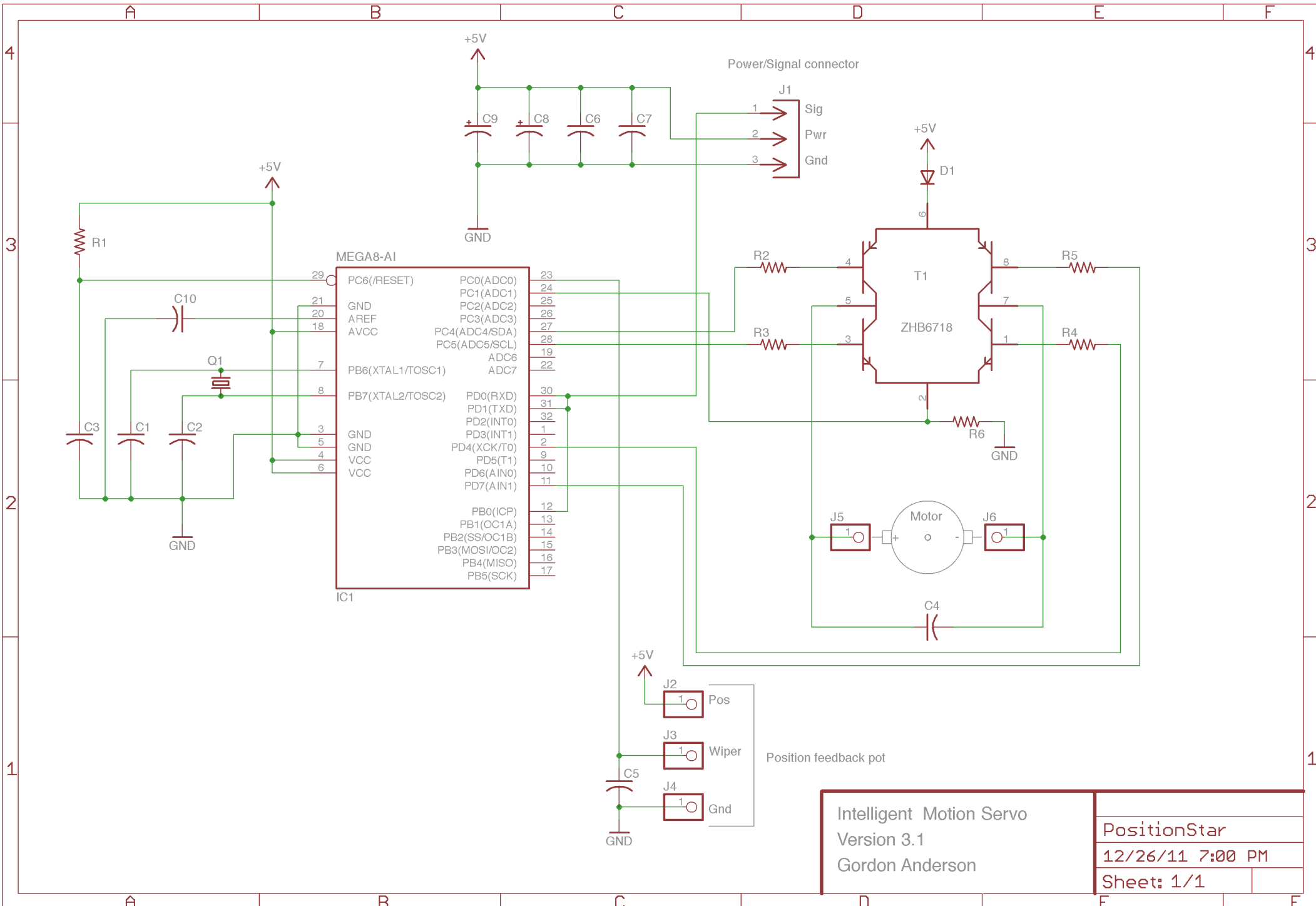


PositionStar IPS Digital Servo Amplifier

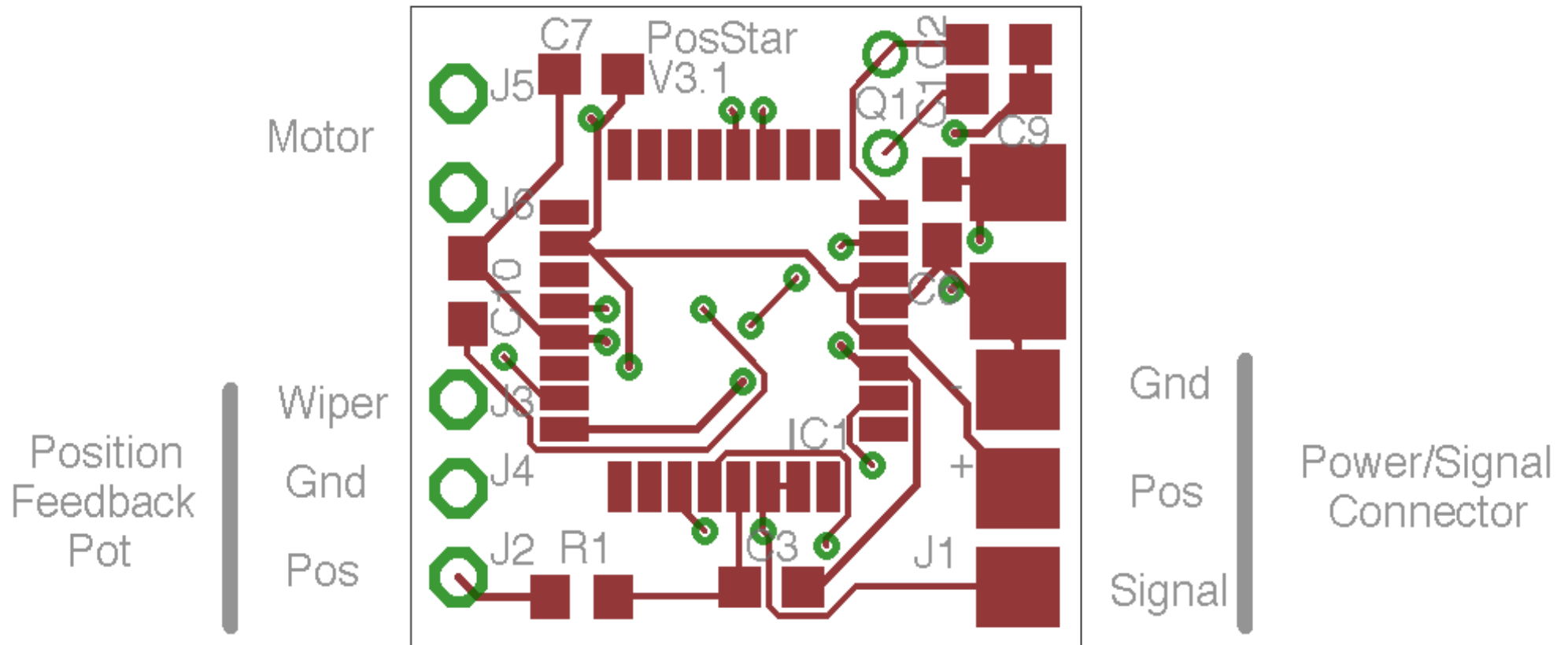
Rev 3.1

December 2011
Gordon Anderson

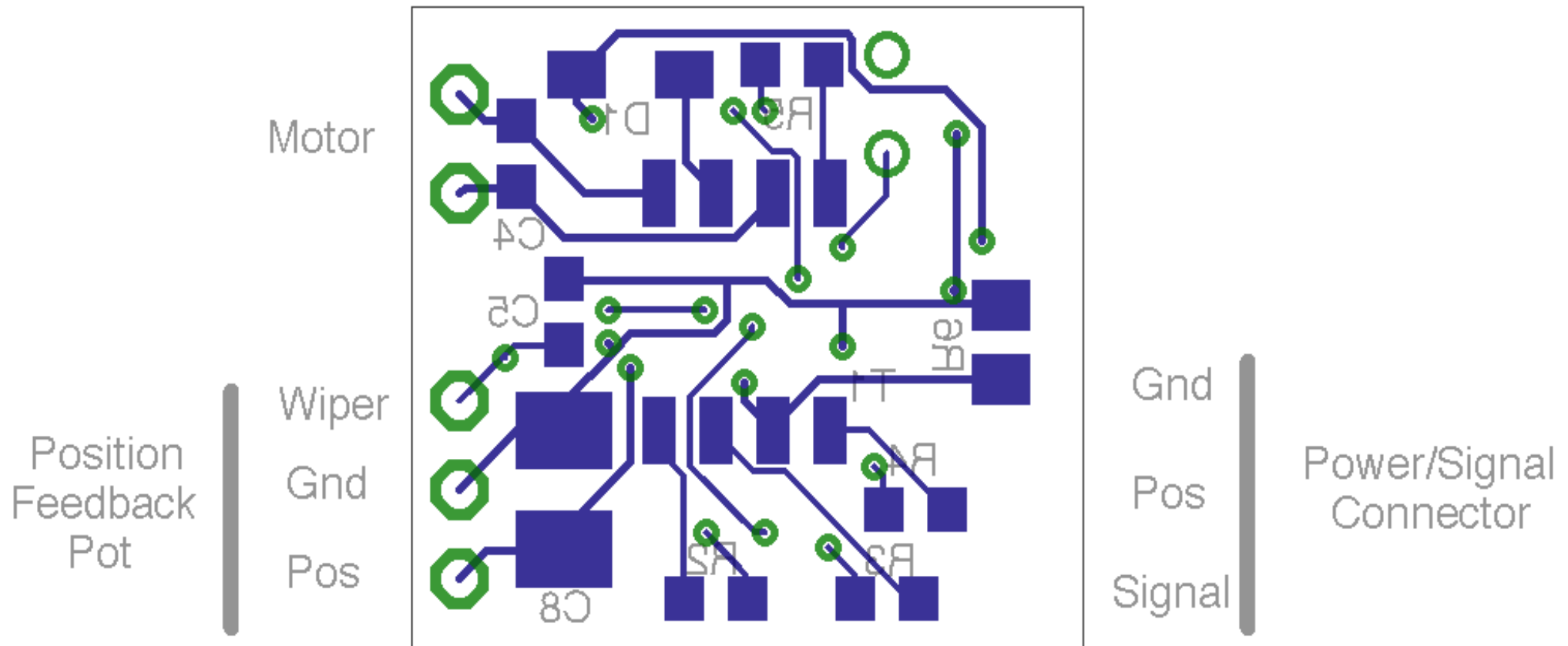




Intelligent Motion Servo		PositionStar	
Version 3.1		12/26/11 7:00 PM	
Gordon Anderson		Sheet: 1/1	

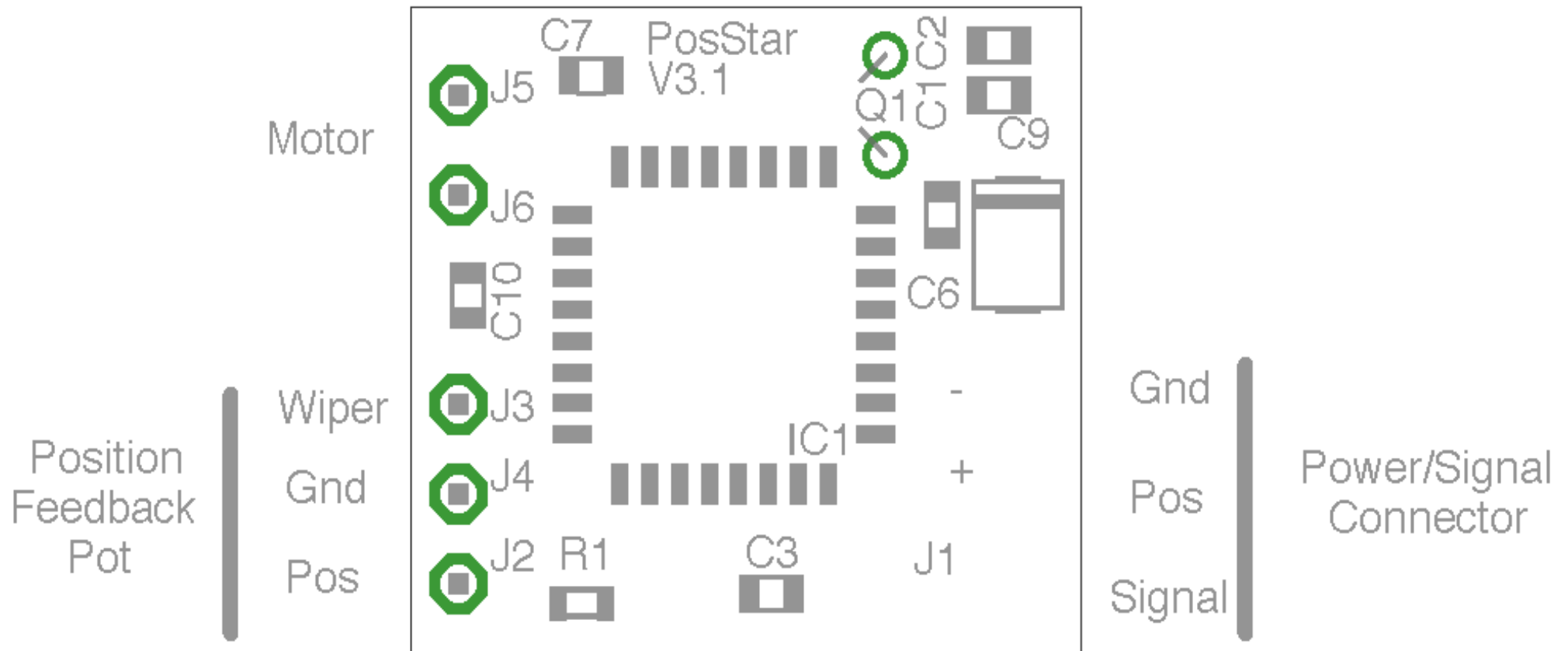


PositionStar Servo Amplifier
 Version 3.1, December 2011
 Gordon Anderson, gaa@owt.com
 Board size: 0.71" x 0.65"



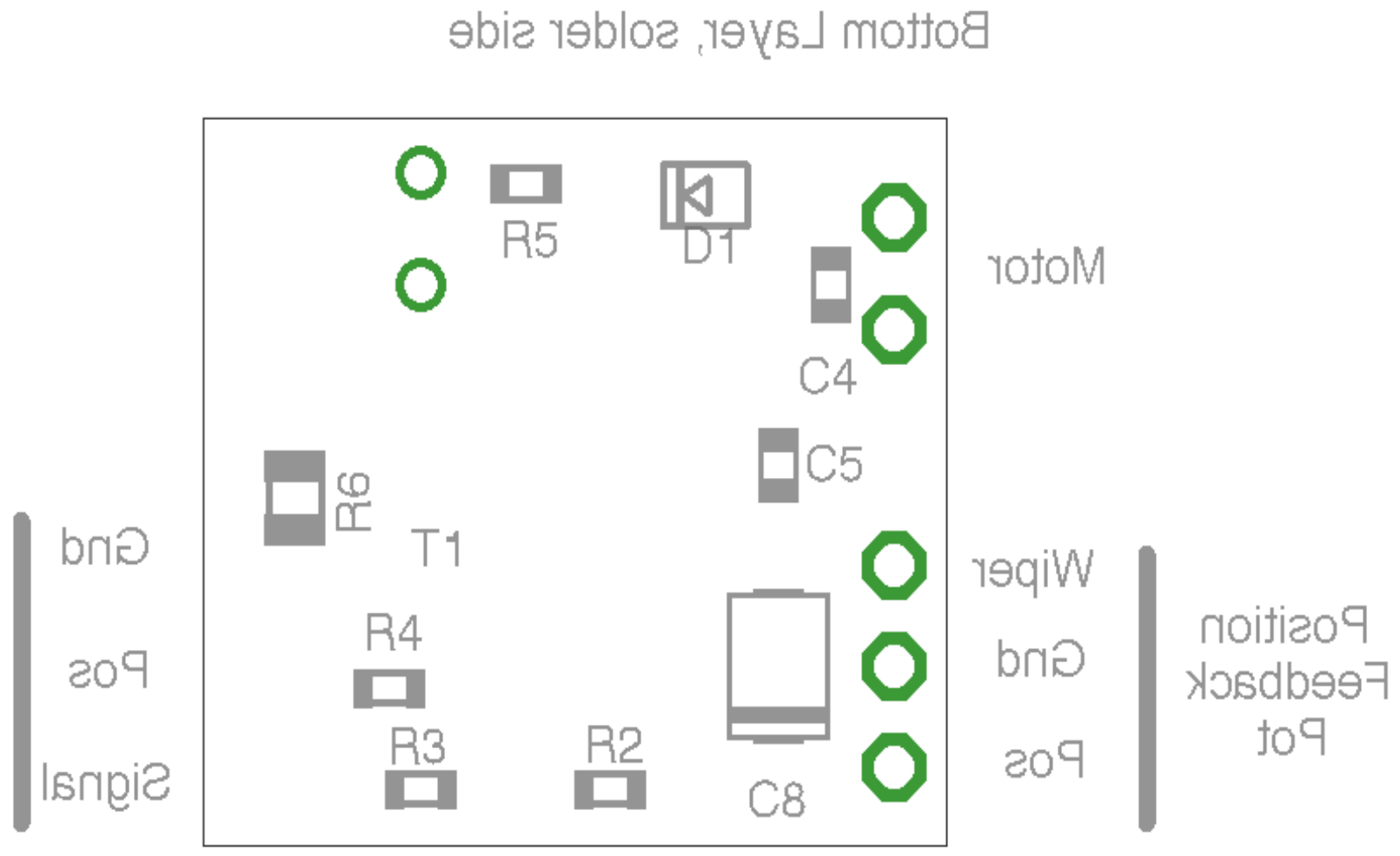
PositionStar Servo Amplifier
 Version 3.1, December 2011
 Gordon Anderson, gaa@owt.com
 Board size: 0.71" x 0.65"

Top layer, component side



PositionStar Servo Amplifier
Version 3.1, December 2011
Gordon Anderson, gaa@owt.com
Board size: 0.71" x 0.65"

Board size: 0.71" x 0.65"
Gordon Anderson, gas@owt.com
Version 3.1, December 2011
PositionStar Servo Amplifier



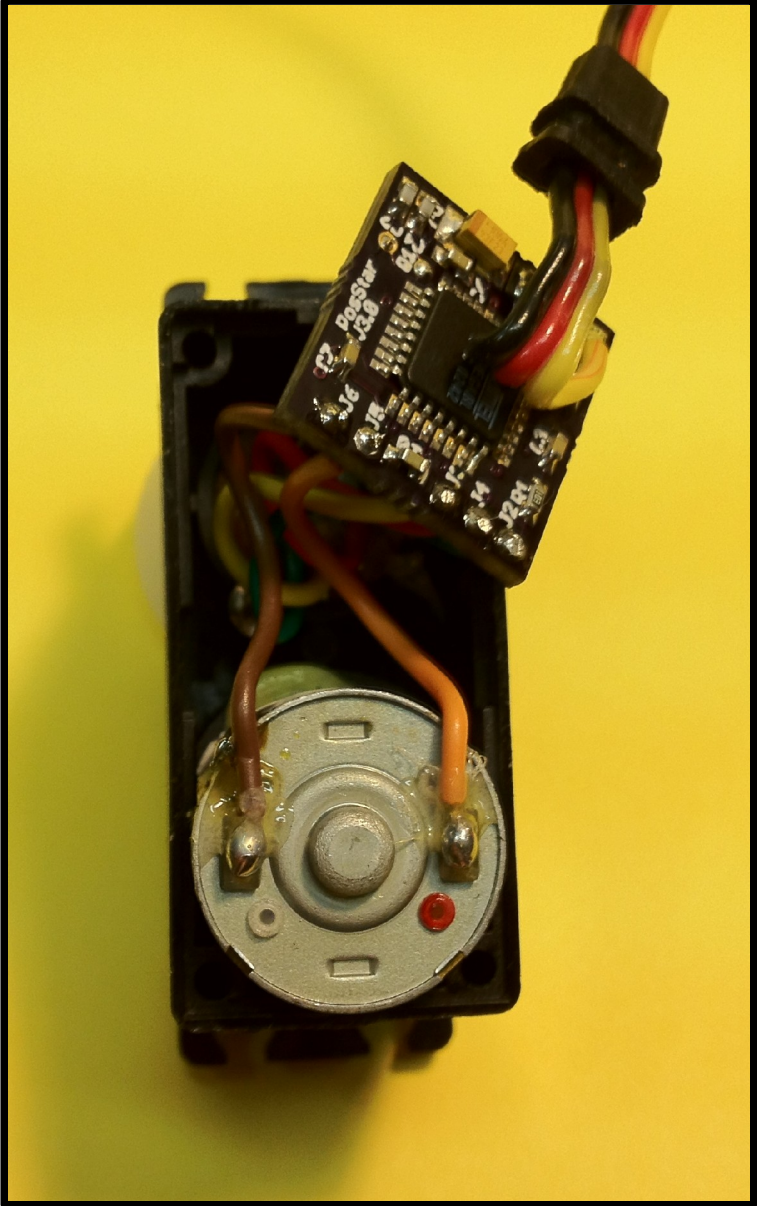
PositionStar Parts List, Rev 3.1

Item	Quantity	ID	Part number	Description	Supplier	Cost each	Total cost	Notes
1	4	C3,C6,C7,C10	GRM033R61A104KE15D	0.1uF 10v 0603	Mouser	0.06	0.24	
2	2	C1,C2	140-CC504N220J-RC	22pF 0603 NPO	Mouser	0.05	0.1	
3	2	C4,C5	140-CC504B102K-RC	1000pF 0603 NPO	Mouser	0.05	0.1	
4	2	C8,C9	P11309CT-ND	10uF 10 volt tantalum	Digikey	0.55	1.1	
5	1	D1	863-NSR1020MW2T1G	Diode	Mouser	0.39	0.39	
6	1	R1	301-10K-RC	10K 0603 resistor	Mouser	0.03	0.03	
7	4	R2,R3,R4,R5	301-100-RC	100 ohm 0603 resistor	Mouser	0.03	0.12	
8	1	R6	RL12S.20GCT-ND	0.20 ohm 0805 resistor	Digikey	0.34	0.34	
9	1	IC1	ATMEGA8L-8AU-ND	8-Bit microcontroller	Digikey	3.55	3.55	
10	1	T1	ZHB6718CT-ND	Trans H-Bridge	Digikey	2.74	2.74	
11	1	Q1	300-8350-1-ND	8MHz cylinder crystal	Digikey	0.9	0.9	
12	1		PosStar30	PositionStar PCB, V3.0	GAACE	1.5	1.5	

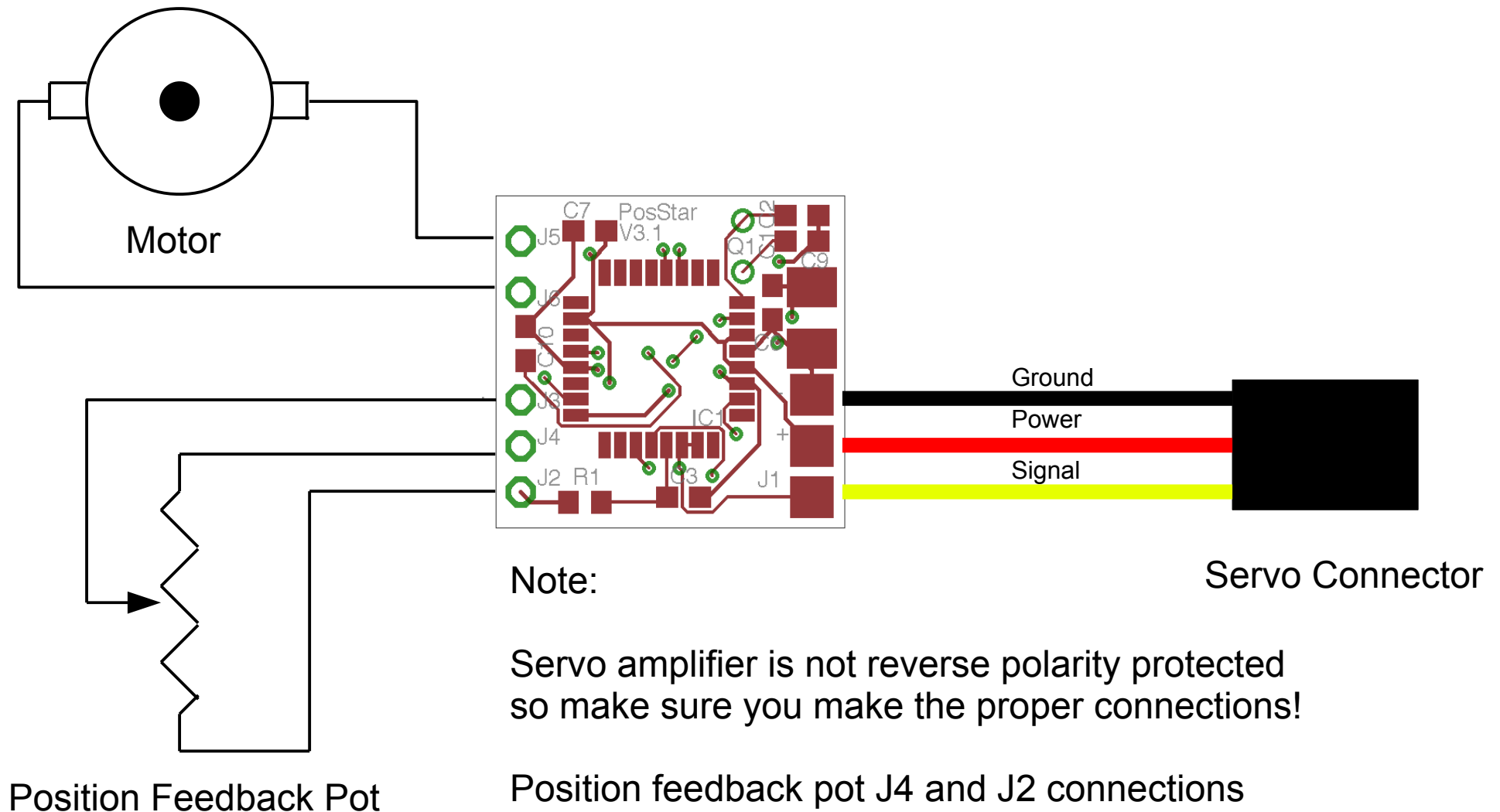
Total

11.11

PositionStar IPS Installed in Hitec 605



Servo Amplifier Installation Details



Note:

Servo amplifier is not reverse polarity protected so make sure you make the proper connections!

Position feedback pot J4 and J2 connections may need to be reversed or motor leads if the motor runs to a physical limit after initial install.

PositionStar IPS Connected to USB Interface

