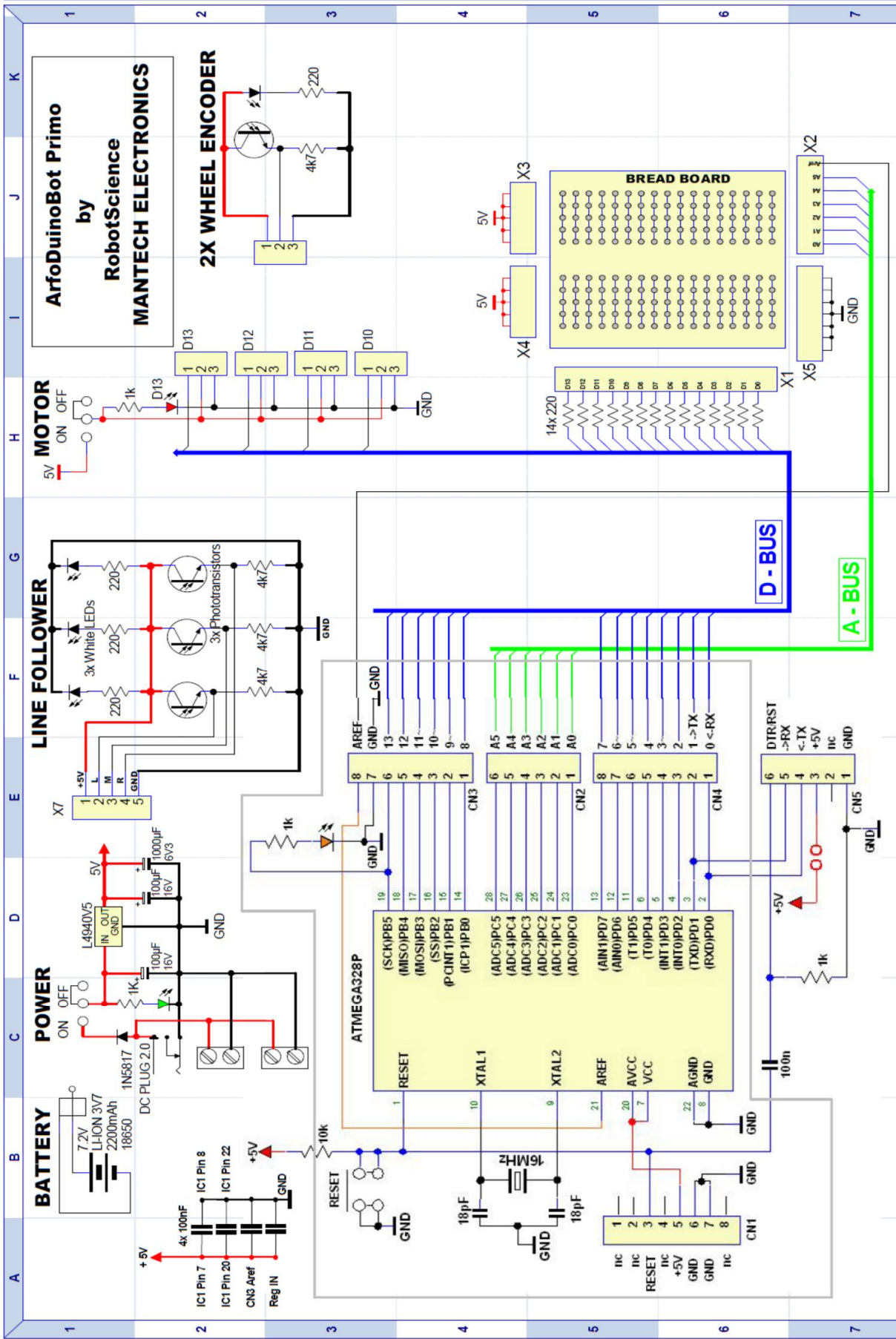


N°	QTY	PART N°	DESCRIPTION	LOC. PCB	STOCK CODE
1	1	PC13-005-01	PCB AfroDuinoBot Primo		15M1245
2	4	CF12.5-1K-J T/B	RES 1/8W RND C/F 5% 1K	Main	72M1627
3	1	CF12.5-10K-J	RES 1/8W RND C/F 5% 10K0	Main	72M1626
4	17	CF12.5-220E-J T/B	RES 1/8W RND C/F 05% 220E	Main & Line	72M4697
5	3	CF12.5-4K7-J T/B	RES 1/8W RND C/F 5% 4K7	Line	14MB107
6	2	E.CAP 100uF 16V	CAP ELEC RAD 100uF 16V SSHT	Main	72M3339
7	5	CT4-0805Y104M500PF3	CAP CER M/L 100nF 50V P=5	Main	72M1700
8	2	CC1-F5NPO2A180KSPW	CAP CER DISK NPO 18pF 50V 2.5	Main	83M0240
9	1	6.3ML1000M 10x9	CAP ELEC RAD 1000uF 6.3V HTLP	Main	14M4983
10	1	1N5817	DIODE SKY AXL 20V 1A	Main	72M0616
11	1	BL-B2134	LED 5mm DI-GR RND 80mcd 25mm	Main	64M0021
12	1	BL-B6434-TL	LED 5mm RND DI-RD 250mcd 20D	Main	72M0905
13	1	BL-B4134	LED 5mm DI-OR RND 80mcd 35D	Main	14M6361
14	3	VW05A3SWQ4-N	LED 5mm CL-WT RND 23Kmcld 15D	Line	64M0033
15	3	BPT-BP0334	PHOTOTRANSISTOR CL-IR 5mm RX	Line	14M6089
16	1	L4940V5	REG FIX POS TO220 5V 1A5 LDO	Main	35M4569
17	1	ATMEGA328P	MICRO DIP ATMEGA328P PROGRAMED	Main	14M2991
18	1	HC49S-16M1630F	CRYSTAL HC-49S 16.0MHz L/P	Main	14M4315
19	1	SL71102	HEAT SINK TO220 FIN SML 19x13	Main	14M9087
20	1	ISM28T1-03	IC SOCK 0.3 P28 TULIP RND NAR OPEN TUBE	Main	35M4612
21	2	B1551	SWIT SLIDE SPDT 11.3x5.8x9.6	Main	14MA995
22	1	MTS-1102A TS-2 5MM	SWITCH TACTILE 6x6 H=5.0	Main	72M1360-A
23	1	K375A	PLUG DC-PWR 2.0x09 R/A PCB	Main	72M4026
24	3	FHSS08G1	SOCK SIL STR HOUSED 2.54 8W	Main	72M0356
25	1	FHSS06G1	SOCK SIL STR HOUSED 2.54 6W	Main	14M6374
26	1	FHSR-06G1-RH	HOUSED SOCKET RIGHT ANGLE SIL 6W 2.54mm	Main	15M1295
27	1	ILMS-14-1/RH	SOCKET SIL STRIP 14W 2.54mm TULIP	Main	65M1071-H
28	2	ILMS-07-1/RH	SOCKET SIL STRIP 7W 2.54mm TULIP	Main	72M0367
29	3	ILMS-05-1/RH	SOCKET SIL STRIP 5W 2.54mm TULIP	Main & Line	14M1740
30	4	2500-03ST	HEAD SIL STR 03 F/L 2.54mm	Main	14M2692
31	2	PHSS02G10-RH	HEADER SIL STR 02W 2.54 TH=12	Line	14M2942
32	2	DG308-2.54-02P-14-00AH	TERM N/C PCB 2W 2.54 STR GRN	Main	72M1804
33	2	ICR18650-22F	BAT LI-ION 3V7 2200mAh 18650 65x18	Main	310M0003
34	1	BHC-18650-2A	HOLDER BAT 2x18650	Main	72M2467
35	1	K311V	SOCKET DC 2.1x5.5x09 SLEEVE	Main	72M4401-A
36	2	900-00008, PARALLAX	MOTOR SERVO 4-6V CONTINUOUS	Wheel assembly	14MB159
37	6	MODW	Mounting Block white	Chassis assembly	15M1234
38	2	MS-CS-M3X10-ZP	SCREW COUNTER-SINK M3x10	Bat holder	14M1439
39	4	MS-MS-CH-M3S-08ZB	SCREW CHEESE-HEAD M3x8 PLATED	Line to spacer	14M1144
40	1	MO-MS-MS-CH-M3S-10ZB	SCREW CHEESE-HEAD M3x10 PLATE	Heatsink	14M1133
41	16	MO-MS-MS-CH-M3S-16ZB	SCREW CHEESE-HEAD M3x16 PLATE	Servo & Wheel Ass.	14M0137
42	1	CHMSZ3X50	SCREW CHEESE-HEAD M3x50 PLATE	Rear Wheel	14M1141
43	18	KBB5x10	FAN SCREW M5x10mm NICKEL PLATED Black	Chassis assembly	15M1291
44	11	NT3	NUT HEX M3 PLATED		14M1165
45	8	NUT-M3-NY	NUT M3 NYLON LOCK NUT	Wheel assembly	14MA283
46	23	FWZ3	WASHER M3 FLAT PLATED		14M1157
47	15	SWZ3	WASHER M3 SPRING PLATED		14M1160
48	18	FW4-ZP	WASHER M4 FLAT PLATED	Chassis assembly	14M1158
49	2	SG58408	SPACER PLASTIC MAL-FEM M3x25	Line assembly	14M8980
50	2	HP-10	SPACER PLASTIC FEM-FEM M3x10	Line assembly	14M1181
51	1	170171	BLACK PLASTIC BALL 30mm WITH 4mm HOLE	Rear Wheel	14M2020-T
52	1	917226 / 170042 / FT232RL	USB TO TTL SERIAL / RS232 CONVERTER	programming	15M0301
53	1	ZR07016	LEAD USB A-PLUG to 5P MINI B-PLUG 1.5M Black	programming	72M4314
54	1	ME13-005-08	WHEEL SET 72mm RUBBER FOR PRIMO KIT	Wheel assembly	15M5501
55	1	MEC-TIE1	CABLE TIE 100x25 PACK 10PCS	Rear Wheel & wire	15M0390-W
56	1	TYER-MEC1	Rubber Tyre piecers set-4	Wheel assembly	14M2212
57	1	EIC-1501 / 165-42-0-15010 *A*	BREADBOARD 46x36 170 POINTS with wire	Main	15M0009
58	1	160057 / 2031	PLASTIC BIN CLEAR 6LT 285x200x170mm	storage	65M5576-H
59	1	160056	ENCL PLA CLR 3LT 22x16x13	storage	65M5575-H
60	1	ZJ3009	CHARGER DUAL 4.2V 1A 18650 CELL		330M1021


Optional: Tools List

1	1	SOLDER KIT - ENTRY LEVEL	An IRON,STAND & 10M 0.9 SOLDER IN TOOL BOX		14M9986-Z
2	1	T4U01-01	SCREWDRIVER FLAT + PH 2.4 NO LOGO		340M1040
3	1	160035	SIDE CUTTERS PLIERS 115mm		15M0254
4	1	160033	LONG NOSE PLIERS SERRATED JAWS 130mm		15M0252



1 2 3 4 5 6 7

A B C D E F G H I J K

 MANTECH ELECTRONICS <i>International Components Distributor</i>		COMPANY MANTECH ELECTRONICS (c)2006
		SCHEMATIC ME13-005-V01
		DESIGNER M MINSHULL
		17 OCT 2017 REV 1.0
		PAGE 1

Construction:

1. Cut with a small sharp side cutters the tabs holding the PCB parts together. Smoothen the rough edged with a file or sandpaper.
Note: Place the batteries in the charger for charging this may tack 3 - 4 hour minimum.
2. Start with the Main board for soldering the electronic components
Soldering: First start with the lowest profile components (resistors & 1x 1N5817 diode), then the next slightly higher and so forth.
For video guidance download Instruction-Video, 1.7Gb:
<http://www.mantech.co.za/downloads/Instruction-Video.zip>
More at: https://www.youtube.com/results?search_query=+AfroDuinoBOT+PRIMO
3. Assembling the Chassis
See exploded view for more details.
https://mantech.co.za/Datasheets/Products/PC_13-005%5E1.pdf

Reference:

- <http://www.robotscience.co.za/primorobot/pcb-chassis-set.htm>
- <https://www.uj.ac.za/faculties/febe/technoLab>
- <https://yt.ax/channel/mikerobotscience-42442/>