					Instantaneous Velocity	
State #	S1	S2	S3	S4	CW	CCW
9	1	0	0	1	Drive CW	Drive CW
6	0	1	1	0	Drive CCW	Drive CCW
0	0	0	0	0	Coast	Coast
8	1	0	0	0	Coast	Brake to VCC
4	0	1	0	0	Brake to GND	Coast
2	0	0	1	0	Brake to VCC	Coast
1	0	0	0	1	Coast	Brake to GND
5	0	1	0	1	Brake to GND	Brake to GND
10	1	0	1	0	Brake to VCC	Brake to VCC
12	0	0	0	0	Short Circuit	Short Circuit
3	0	0	0	0	Short Circuit	Short Circuit
7	0	0	0	0	Short Circuit	Short Circuit
11	0	0	0	0	Short Circuit	Short Circuit
13	0	0	0	0	Short Circuit	Short Circuit
14	0	0	0	0	Short Circuit	Short Circuit
15	0	0	0	0	Short Circuit	Short Circuit