

## IGVC - Dave LABView Cheat Sheet

PCB 1			
Lo Speed Digital IO			
Digital Pin	DB 37 Pin	Connected to:	I/O ?
0	1	Drive Encoder Cable Check	Input
1	2	Drive Encoder B	Input
2	3	Steer Encoder Cable Check	Input
3	4	Steer Encoder B	Input
4	5	Lidar Drive Encoder Cable Check	Input
5	6	Lidar Drive Encoder B	Input
6	7	Lidar Pos Encoder Cable Check	Input
7	8	Lidar Pos Encoder B	Input
COM	9	Ground	-
COM	10	Ground	-
8	11	Mod Btns + Blinky Cable Check	Input
9	12	Mod Button 2	Input
10	13	Mod Button 4	Input
11	14	Extra Digital 10	I / O
12	15	Extra Digital 8	I / O
13	16	Extra Digital 6	I / O
14	17	Extra Digital 4	I / O
15	18	Extra Digital 2	I / O
RSVD	19	Not Used	-
16	20	Drive Encoder Index	Input
17	21	Drive Encoder A	Input
18	22	Steer Encoder Index	Input
19	23	Steer Encoder A	Input
20	24	Lidar Drive Encoder Index	Input
21	25	Lidar Drive Encoder A	Input
22	26	Lidar Pos Encoder Index	Input
23	27	Lidar Pos Encoder A	Input
COM	28	Ground	-
COM	29	Ground	-
24	30	Mod Button 1	Input
25	31	Mod Button 3	Input
26	32	Blinky Light	Output
27	33	Extra Digital 9	I / O
28	34	Extra Digital 7	I / O
29	35	Extra Digital 5	I / O
30	36	Extra Digital 3	I / O
31	37	Extra Digital 1	I / O

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PCB 2							
Lo Speed Digital IO				High Speed Digital IO			
Digital Pin	DB 37 Pin	Connected to:	I/O ?	Digital Pin	DB 25 Pin	Connected to:	I/O ?
0	1	Not Connected	-	COM	1	Ground	-
1	2	Not Connected	-	NC	2	Not Connected	-
2	3	Drive Motor Fault	Input	COM	3	Ground	Input
3	4	Not Connected	-	COM	4	Ground	-
4	5	Not Connected	-	NC	5	Not Connected	-
5	6	Not Connected	-	COM	6	Ground	-
6	7	Extra Digital 10	I/O	COM	7	Ground	I/O
7	8	Extra Digital 9	I/O	NC	8	Not Connected	I/O
COM	9	Ground	-	COM	9	Ground	-
COM	10	Ground	-	COM	10	Ground	-
8	11	Extra Digital 8	I/O	NC	11	Not Connected	I/O
9	12	Extra Digital 7	I/O	COM	12	Ground	I/O
10	13	Extra Digital 6	I/O	COM	13	Ground	I/O
11	14	Extra Digital 5	I/O	0	14	Not Connected	I/O
12	15	Extra Digital 4	I / O	NC	15	Not Connected	I / O
13	16	Extra Digital 3	I / O	1	16	Not Connected	I / O
14	17	Extra Digital 2	I / O	2	17	Not Connected	I / O
15	18	Extra Digital 1	I / O	NC	18	Not Connected	I / O
RSVD	19	Not Used	-	3	19	Not Connected	-
16	20	Lidar Data Cable Check	Input	4	20	Not Connected	Input
17	21	Drive Motor Cable check	Input	NC	21	Not Connected	Input
18	22	Drive Motor Inhibit	Output	5	22	Not Connected	Output
19	23	Not Connected	-	6	23	TX	-
20	24	Not Connected	-	NC	24	Not Connected	-
21	25	Not Connected	-	7	25	RX	-
22	26	Vector Nav Cable Check	Input				
23	27	Vector Nav Tare	Output	Serial Ports			
COM	28	Ground	-	Serial 1	GPS (Connected Direct)		
COM	29	Ground	-	Serial 2	Vector Nav		
24	30	Not Connected	-	Analog Output			
25	31	Lidar Drive Cable Check	Input	Module	PCB	Lab View	
26	32	Lidar Drive Inhibit	Output	1	1	-	
27	33	Lidar Drive Fault	I / O	0	2	Steer Drive	AO0
28	34	Not Connected	I / O	2	3	Lidar Drive	AO1
29	35	Steer Drive Cable Check	I / O	4	4	Drive Motor	AO2
30	36	Steer Drive Inhibit	Output				
31	37	Steer Drive Fault	Input				