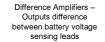
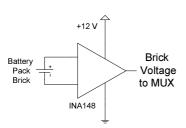
Battery Protection Circuit

Northwestern University Solar Car Team

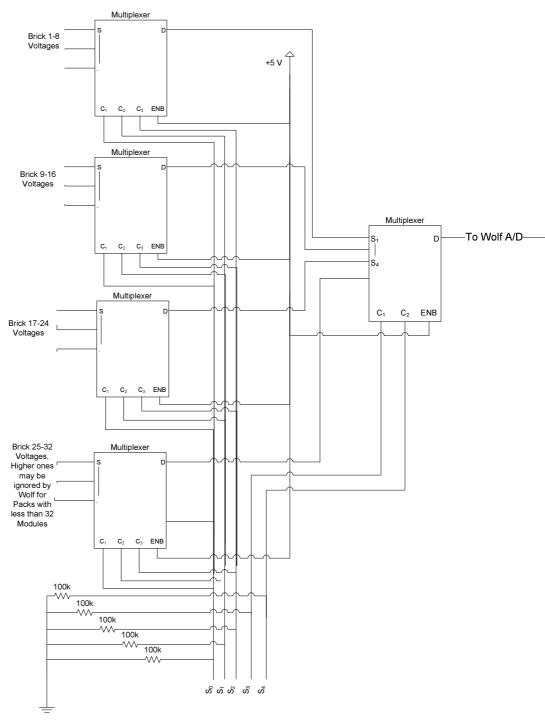
1/22/2011

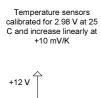


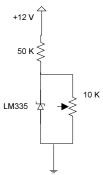


Truth Table	MUX Selectors						
Selected Brick	S ₄ S ₃ S ₂ S ₁ S ₀						
1	0	0	0	0	0		
2	0	0	0	0	1		
3	0	0	0	1	0		
4	0	0	0	1	1		
5	0	0	1	0	0		
6	0	0	1	0	1		
7	0	0	1	1	0		
8	0	0	1	1	1		
9	0	1	0	0	0		
10	0	1	0	0	1		
11	0	1	0	1	0		
12	0	1	0	1	1		
13	0	1	1	0	0		
14	0	1	1	0	1		
15	0	1	1	1	0		
16	0	1	1	1	1		
17	1	0	0	0	0		
18	1	0	0	0	1		
19	1	0	0	1	0		
20	1	0	0	1	1		
21	1	0	1	0	0		
22	1	0	1	0	1		
23	1	0	1	1	0		
24	1	0	1	1	1		
25	1	1	0	0	0		
26	1	1	0	0	1		
27	1	1	0	1	0		
28	1	1	0	1	1		
29	1	1	1	0	0		
30	1	1	1	0	1		
31	1	1	1	1	0		
32	1	1	1	1	1		

Multiplexers select individual brick voltage







Truth Table	MUX Selectors						
Selected Brick	S	S3	S_2	S_1	S_0		
Temp 1	0	0	0	0	0		
Temp 2	0	0	0	0	1		
Temp 3	0	0	0	1	0		
Temp 4	0	0	0	1	1		
Temp 5	0	0	1	0	0		
Temp 6	0	0	1	0	1		
Temp 7	0	0	1	1	0		
Temp 8	0	0	1	1	1		
Temp 9	0	1	0	0	0		
Temp 10	0	1	0	0	1		
Temp 11	0	1	0	1	0		
Temp 12	0	1	0	1	1		
Temp 13	0	1	1	0	0		
Temp 14	0	1	1	0	1		
Temp 15	0	1	1	1	0		
Temp 16	0	1	1	1	1		
Temp 17	1	0	0	0	0		
Temp 18	1	0	0	0	1		
Temp 19	1	0	0	1	0		
Temp 20	1	0	0	1	1		
Temp 21	1	0	1	0	0		
Temp 22	1	0	1	0	1		
Temp 23	1	0	1	1	0		
Temp 24	1	0	1	1	1		
Temp 25	1	1	0	0	0		
Temp 26	1	1	0	0	1		
Temp 27	1	1	0	1	0		
Temp 28	1	1	0	1	1		
Temp 29	1	1	1	0	0		
Temp 30	1	1	1	0	1		
Temp 31	1	1	1	1	0		
Temp 32	1	1	1	1	1		

