

3.3v 24 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8	2.2	1.22	2.69	0.74	0.9	1.22
0.22	1.1	5.00	5.50	0.42	2.1	5.00
0.05	0.3	6.00	1.80	0.48	2.9	6.00
0.01	0.12	12.00	1.44	0.26	3.1	12.00
0.005	0.05	10.00	0.50	0.32	3.2	10.00
none				0.28	3.3	11.85

2" or wire about .2785 ohms
 warm 1.1
 just a little r 10.5
 mid low red 17.4
 mid red 37.2
 mid red 32
 Little more 39.102333931777

5v 24 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8		0.00	0.00			0.00
0.22	2.05	9.32	19.10	0.29	2.7	9.32
0.05		0.00	0.00			0.00
0.01		0.00	0.00			0.00
0.005		0.00	0.00			0.00
none				0.28		0.00

2" or wire a
 red
 don't try
 don't try
 don't try
 don't try

3.3v 20 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8	3	1.67	5.00	0.18	0.3	1.67
0.22	1.7	7.73	13.14	0.18	1.4	7.73
0.05	0.7	14.00	9.80	0.18	2.45	14.00
0.01	0.16	16.00	2.56	0.18	2.95	16.00
0.005	0.095	19.00	1.81	0.16	3.1	19.00
none				0.16	3.3	20.63

2" or wire about .109 ohms
 not warm 0.5
 warm 10.818181818182
 med red 34.3
 "+med red 47.2
 bright red 58.9
 bright all re 68.0625

5v 20 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8		0.00	0.00			0.00
0.22	2.75	12.50	34.38	0.16	1.95	12.50
0.05	1.05	21.00	22.05	0.17	3.55	21.00
0.01		0.00	0.00			0.00
0.005		0.00	0.00			0.00
none				0.16		0.00

2" or wire a
 just a little r
 very red
 don't try
 don't try
 don't try

3.3v 18 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8	2.85	1.58	4.51	0.16	0.26	1.58
0.22	1.9	8.64	16.41	0.14	1.25	8.64
0.05	0.8	16.00	12.80	0.15	2.35	16.00
0.01	0.26	26.00	6.76	0.11	2.85	26.00
0.005	0.11	22.00	2.42	0.13	2.9	22.00
none				0.11	3.3	30.00

2" or wire about .07 ohms
 warm 0.41166666666667
 warmer 10.795454545455
 low red 37.6
 bright red 74.1
 bright red 63.8
 brighter slig 99

5v 18 gauge				NiCr		
Resistor				NiCr		
Ohms	Voltage	Amp	Watts	Ohms	Voltage	Amp
1.8		0.00	0.00			0.00
0.22	2.95	13.41	39.56	0.13	1.75	13.41
0.05	1.25	25.00	31.25	0.14	3.6	25.00
0.01	0.35	35.00	12.25	0.13	4.5	35.00
0.005		0.00	0.00			0.00
none				0.11		0.00

2" or wire a
 just a little r
 very red top
 to hot
 don't try
 don't try

 = voltage readings were not linear

		V drop	R (NICR)	V source	R resist	I	Watts Dis	Watts NiCr
24 gauge	Low Power	3	0.28	5	0.19	10.714286	21.428571	32.142857
24 gauge	High Power	4	0.28	5	0.07	14.285714	14.285714	57.142857
20 gauge	Low Power	2.45	0.18	5	0.19	13.611111	34.708333	33.347222
20 gauge	High Power	3.1	0.18	5	0.11	17.222222	32.722222	53.388889
18 gauge	Low Power	2.3	0.14	5	0.16	16.428571	44.357143	37.785714
18 gauge	High Power	3	0.14	5	0.09	21.428571	42.857143	64.285714

