

Ergonomics		Wheel Layout 1	Wheel Layout 2	HOA 1	HOA 2
Criteria	Weight	TadPole	Delta	-15 degrees	5 degrees
Stability	23%	5	2	3	3
Safety	27%	4	3	4	3
Complexity	5%	2	3	3	3
Weight	10%	3	3	4	3
Aerodynamic	5%	2	2	5	2
Braking	15%	3	3	3	3
Power Output	15%	3	3	5	2
<b>SUMS</b>		22	19	27	19
<b>WEIGHTED</b>		3.63	2.72	3.77	2.8

Braking		Design 1	Design 2	Design 3	Design 4
Criteria	Weight	Caliper	Cantilever	Drum	Disk
Safety	25%	5	4	3	4
Reliability	20%	3	3	3	4
Complexity	15%	4	3	3	2
Price	15%	5	4	3	2
Performance	25%	3	3	3	5
<b>SUMS</b>		20	17	15	17
<b>WEIGHTED</b>		3.95	3.4	3	3.65

/5  
/10

Ergonomics		HOA 1	HOA 2	BOA 1	BOA 2
Criteria	Weight	-15 degrees	5 degrees	135 degrees	110 degrees
Stability	23%	3	3	3	3
Safety	27%	4	3	3	3
Complexity	5%	3	3	2	3
Weight	10%	4	3	3	3
Aerodynamic	5%	5	2	4	2
Braking	15%	3	3	3	3
Power Output	15%	5	2	5	2
<b>SUMS</b>		27	19	23	19
<b>WEIGHTED</b>		3.77	2.8	3.3	2.8

Roll Cage		SCALE [1-5]		[HIGH SCORE = BETTER]	
Criteria	Weight	2-point	4-point	3-point	Wrap-around
Weight	15.0%	4	3	3	2
Protection	30.0%	2	4	3	4
Drag Coeff	10.0%	2	2	2	3

Deflection	30.0%	1	4	3	3
Price	15.0%				
Resistant to Cracks	15.0%				
Manufacturing	15.0%	4	3	3	3
SUM = 1 ->	100.0%				
<b>SUMS</b>		13	16	14	15
<b>Weighted SUMS</b>		2.26	2.72	2.35	2.44

1 = Worst      10 = Best		Weight	Tear drop		Kamn
Design Criteria			Rank	Weighted	Rank
Weight	15%	5	0.75	5	
Manufacturability	20%	7	1.4	7	
Aerodynamic	25%	8	2	6	
Cost	18%	7	1.26	7	
Aesthetic	22%	9	1.98	4	
			0		
			0		
			0		
			0		
<b>SUM</b>	1		7.39		

BOA 1	BOA 2	
135 degrees	110 degrees	
	3	3
	3	3
	2	3
	3	3
	4	2
	3	3
	5	2
	23	19
	3.3	2.8


MATERIAL			
Steel	Aluminum	Carbon Fiber	
	3	4	5

3	4	3
4	4	1
4	3	1
4	3	2
18	18	12
2.39	2.42	1.95

n tail	Ellipse		U-shape		None	
Weighted	Rank	Weighted	Rank	Weighted	Rank	Weighted
0.75	5	0.75	5	0.75	10	1.5
1.4	7	1.4	7	1.4	10	2
1.5	5	1.25	5	1.25	3	0.75
1.26	7	1.26	7	1.26	10	1.8
0.88	8	1.76	6	1.32	3	0.66
0		0		0		0
0		0		0		0
0		0		0		0
0		0		0		0
5.79		6.42		5.98		6.71