Specification Number	Customer Need Number	Design Specification	Importance	Unit of Measure	Marginal Value	Ideal Value
1		Size	1	mm	174x105x40	80x50x20
2	1	Weight	1	kg	1	0.5
3		Number of digital inputs	3		8	10
4		Number of digital outputs	3		16	20
5		Serial interface	3	USB	2	2
6		Number of Analog inputs	3		16	20
7		Number of Analog outputs	3		2	4
8		Pulse width modulated outputs	3		4	6
9	2	Timing granularity	9	degrees	1	0.5
10	3	Injector pulse width and time	9	ms	0.1	0.01
11		Processor speed	9	MHz	24	32
12		RAM memory	9	kB	512	512
13		Flash memory	9	kB	512	512
14		Burn in	3	oC/hr.	10-70/10 hrs	10-70/32 hrs
15		Battery transient protection	3	mV	0.1	0.001
16	4	Max RPM	3	RPM	12500	15000
17		Internal temperature range	3	oC	-20-85	-50-125
18		Operating voltage	1	V	9-24	6-24
19		Operating current	1	Amp	10	8
20	5	fuel calibration accuracy	9	us	2	0.042
21	6	Ignition calibration accuracy	3	us	2	0.042
22	7	tach output	3	RPM	15000	18000

Test Box		Size	3	cm		
		Weight	3	kg		
		Number of digital outputs	9		8	10
		Number of Analog outputs	3		2	4

Possible "Attributes" with Spec potential components

tributes Section						
1	2	FSAE sensors compatible with calibration	3			
2	3	Controller software updatable by USB	9			
3		High RFI immunity	3			
4		Battery reverse protection	9			
5	4	Environmentally sealed electronics	9			

6	5	Display communications	3			
7	6	Tuning setup diagnostic and utility software	9			
8		cross platform usability	1			
9	7	Data logging	9			
10	8	User definable real-time display	9			
11		individual cylinder trim	9			
12	9	Adjustable fuel calibration	9			
13	10	RPM and load sites are user programmable	9			
14	11	adjustable ignition calibration	3			
15	12	Onboard wideband lambda sensor controller	3			
16	13	Driver warning alarm and shift light control	1			
17	14	gear detection	1			
18	15	Launch control	1			
19		Gear change ignition cut (for paddle shifters)	1			
20	16	Traction control capable	1			