

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

Attributes Section Possible "Attributes" with Spec potential components					
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		

Sensor	Unit of Measure	ECU Input Signal Range
Throttle Position Sensor (TPS)	V	0 - 5

Manifold Absolute Pressure (MAP)	V	0 - 8
Intake Air Temperature (IAT)	V	0 - 5
Engine Coolant Temperature (ECT)	V	0 - 5

