FORMULA SAE - ELECTRONIC THROTTLE CHECKLIST

Car #	University:	

Met?	Description	Comments
	Two throttle return springs must be present at the throttle body. TPS cannot be treated as a return spring. (IC1.11.3) (This line not mandatory if the throttle module is an OEM production part in pristine condition.)	
	At least two separate TPS sensors are required with separate supply and signal lines unless supply or reference line voltage offset detection can be demostrated. (IC1.12.2)	
	Two pedal return springs must be present at the accel pedal. APP sensors cannot be treated as a return spring. (IC1.13.2)	
	At least two separate APPS sensors are required with separate supply and signal lines. (IC1.13.3)	
	Accel pedal must have a travel-limiting stop, to prevent overtravel or damage when the pedal is strongly depressed. (IC1.13.2)	
	Remove any air cleaners or other obstructions so that the throttle valve is directly visible. Disconnect power source from throttle motor while the throttle is open. Throttle must immediately close. (IC1.11.3)	
	Disconnect first TPS sensor while the throttle is open. Throttle must close. Repeat for second TPS. (Team must provide or install a way to disconnect one sensor at a time.) (IC1.12.3)	
	Disconnect first APP sensor while the throttle is open. Throttle must close. Repeat for second APP. (Team must provide or install a way to disconnect one sensor at a time.) (IC1.13.4)	
	Determine a method to cause the fuel pump to run (typically: ignition-on) and verify it is running (audibly, from computer display, etc.) Activate the fuel pump, open the throttle, insert a blocking device into the throttle valve, command the throttle to fully close. Fuel pump must automatically become disabled due to throttle being unable to close. (IC1.15.2)	
	Activate the fuel pump, open the throttle, then unplug the brake system encoder. Throttle must close due to failed BSE. (IC1.14.3)	
	Activate the fuel pump, open the throttle, then apply medium brake pedal pressure while throttle is still open. Fuel pump must automatically become disabled due to brake implausibility. (IC1.16.1)	