

Name of Project: Automotive electrical trainer(s)

Amount Requested:

\$9,826.36

Total Project Cost:

\$15,551.54

Targeted Population:

10th, 11th and 12th grade

Number of children to be served and grade level(s):

110 students in 10th, 11th, 12th grade

Succinct Summary – The Issue, the change, and the action:

The Issue:

One of the main challenges that students face in the automotive classroom is learning how to grasp the concept of CAN bus (controller area network), which basically means the vehicles computer network. As the automotive teacher, it is a hard thing to demonstrate/teach in a vehicle since the wires and modules are hidden behind trim and other components. One part of this grant focuses on a trainer that students will be able to visibly see and learn how to fix any issues. In addition, I am in need of a second trainer to focus on the basic fundamentals of Ohms law for those students that may be struggling to grasp the concept of meter usage, voltage drop, circuit construction. Lastly, my students need a class set of oscilloscopes (electrical test equipment) to further the students' knowledge base in electrical diagnostics to ensure that they are career ready when they graduate.

The Change:

The goal for this grant is to increase student success on the Automotive Service Excellence (ASE) entry level industry certification. By using the trainers and oscilloscopes, it will help students grasp difficult concepts and be given hands on experience in which they will demonstrate common multiplexing circuit controls via a high-speed CAN Bus network. Students would use the trainers to build circuits and learn diagnostic trouble shooting skills, in which they will be applying theory learned in the classroom. Students can take this knowledge and apply it into career industry.

The Action:

Buy trainer(s) to focus on CAN bus and other electrical circuits. Implement trainer in course work to enhance the student knowledge and application of skills.

Grant Oversight:

Garrett Roux, the automotive instructor will be the one who will be responsible for the project. The project will be sustainable due to the fact the trainer is the newest technology which students will need to enter the workforce. The trainers can also be upgraded in the future to further advance the learning possibilities. Garrett will also be the personnel to provide oversight of the project and implementation of the grant.

Monitoring Progress and Results:

We anticipate that when students are provided opportunities to use the trainers to learn that positive test results will occur. Students will take an industry certification, and the data from the assessment would be used to monitor student success on the ASE entry level exam.

Itemized Budget: Provide a line by line, itemized budget of all items needed for the project, including cost

QTY	PRODUCT / MODEL	DESCRIPTION	TOTAL PRICE
1	53037 MP-1918-1S	Single sided CAN bus multiplex system trainer	\$ 7,650.18
1	CL-1919-05_53044	Ohm's Law And DC Circuits Trainer	\$ 1,976.00
1	AES-USCOPE	uScope digital storage oscilloscope - basic kit	\$ 200.18
1	21055	CL-1919-05 Manual	\$0.00
		Total	\$ 9,826.36

