



# AUTOMOTIVE SOFTWARE & ELECTRONICS FUNDAMENTALS BOOT CAMP



**\$1,995 Early Bird Registration**  
(\$2,195 thereafter)

**December 3-7, 2018** (Las Vegas, NV)

**March 4-8, 2019** (Las Vegas, NV)

**July 15-19, 2019** (Portland, OR)

**December 2-6, 2019** (Las Vegas, NV)

*Automotive Instructors and techs are constantly being challenged by changes in electronics systems and control software in advanced automotive systems. This boot camp contains minimal lecture with significant hands-on project content that will make for the perfect learning environment!*

*Using the popular Arduino Microcontroller, participants will be introduced to MC and electronics to build new hardware (H/W), firmware (F/W), & software (S/W) knowledge that can be used directly with automotive systems, such as the Tesla Model S, Chevrolet Volt, and Toyota Prius.*

**For registration, boot camp bundles, location information, complete overviews and more, visit:**

**[futuretechauto.com/swbootcamp](http://futuretechauto.com/swbootcamp)**

## Pre-requisites:

None

## Instruction:

80% hands-on, 20% lecture

## Hours:

8:30AM-4:30 PM

***This boot camp is designed for individuals with minimal or no experience in S/W (software) development or coding, and minimal to average experience with analog & digital electronics circuits and devices.***



**Instructor**  
Dr. Mark Quarto  
(CTO, QTS LLC)



## **AUTOMOTIVE SOFTWARE & ELECTRONICS SYSTEMS BOOT CAMP**

- This course has the following topics to address the challenges that confront automotive industry service and diagnostic professionals:
- Microcontroller based electronics projects will be built in the class within a fun and interactive environment
- This course will teach participants how they can inexpensively and quickly create their own testing and diagnostic tools.
- Provide participants sufficient fundamental knowledge and skills that would permit them to develop their own microcontroller based applications and hardware interface tools that can be used for analyzing and diagnosing most automotive systems
- Learn how external MC systems can be built to be used with a scan tool or on-board vehicle system to manipulate or change systems operation for the purposes of circuit analysis and diagnostics or building vehicle “bugs” for automotive courses
- As part of the course each participant will receive a MC, software, a USB cable that they take with them when the course has been completed. This will afford the opportunity for participants to continue learning after completing the course!
- The lecture and significant hands-on project content in this course, using the popular Arduino MC, will introduce participants to the world of Electronic Devices, MC, Software Writing, and Software Coding.
- Automotive Instructors will develop skills to develop MC based classroom simulators, demonstrators, and develop student projects in a fun environment. Simulator and demonstrator systems are significant investments for the modern automotive classroom and this course will teach participants how to inexpensively create their own simulator and demonstration systems.
- Automotive technicians will develop skills to develop MC (software) based diagnostic systems that can be used to manipulate or control vehicle systems. Whether the technician wants to monitor control systems, inputs, or outputs this class will instruct them how to quickly make control systems to do it! The technicians will also learn how simple electronic and software circuits can be used with the Scan Tool to develop circuits that can make complex diagnostics easier!
- Information essential for individuals that want to architect vehicle “bugs” for courses or, develop circuits and software to focus on specific diagnostic objectives.
- Provide participants enough fundamental knowledge and skills that would permit them to develop microcontroller based applications and hardware interface tools for most automotive systems.

**Daily training agenda available at  
[futuretechauto.com/swbootcamp](http://futuretechauto.com/swbootcamp)**