

Career and Technical Education
Business Immersion Experience

Test, Measurement, and
Automation

Agenda

- What we do at G2 Technologies
 - Facility tour
- Types of Positions
- Key Skills for working at G2
- Education Requirements
- Ideal Applicants
- Current Gaps in Candidates
- Advice for Students

What we do at G2 Technologies

- We specialize in the design and development of automated inspection, measurement, and test systems for aerospace, automotive and business to business “B2B” industrial clients.
- We apply the latest technology to provide turn-key systems for clients around the world, like Ingersoll Rand, 3M, Dupont, Corning, CREE, Eaton, and others.
- From aircraft smoke detectors to precision defect detection in automotive parts.

What we do at G2 Technologies

- Test & Measurement Industry is Critical to manufacturing:

May 17, 2018 NHTSA CAMPAIGN NUMBER: 18V332000



Cruise Control cannot be Cancelled

If the vehicle maintains its speed or accelerates despite attempts to deactivate the cruise control, there would be an increased risk of a crash.

NHTSA Campaign Number: 18V332000

Manufacturer Chrysler (FCA US LLC)

Components ELECTRICAL SYSTEM, VEHICLE SPEED CONTROL

Potential Number of Units Affected 4,846,885

Summary

Chrysler (FCA US LLC) is recalling certain 2014-2018 Dodge Journey, Charger and Durango, RAM 2500, 3500, 3500 Cab Chassis (more than 10,000lb), 4500 Cab Chassis and 5500 Cab Chassis, Jeep Cherokee and Grand Cherokee and Chrysler 300, 2014-2019 RAM 1500, 2015-2018 Dodge Challenger, 2015-2017 Chrysler 200, 2016-2018 RAM 3500 Cab Chassis (less than 10,000 lb), 2017-2018 Chrysler Pacifica and 2018 Jeep Wrangler vehicles. These vehicles are being recalled to address a defect that could prevent the cruise control system from disengaging. If, when using cruise control, there is a short circuit within the vehicle's wiring, the driver may not be able to shut off the cruise control either by depressing the brake pedal or manually turning the system off once it has been engaged, resulting in either the vehicle maintaining its current speed or possibly accelerating.

What we do at G2 Technologies

- Test & Measurement Industry is Critical to manufacturing:

Carrier and Bryant Recall Heat Pumps Due to Fire Hazard



Name of product:

Carrier Greenspeed™ and Bryant Evolution Extreme™ Heat Pumps

Hazard:

The capacitors in the fuse boards in the heat pumps can stop working causing the unit to overheat, posing a fire hazard.

Remedy:

Repair

Recall date:

May 11, 2017

Units:

About 23,300 (In addition about 2,000 sold in Canada)

What we do at G2 Technologies

- Test & Measurement Industry is Critical to manufacturing:

APRIL 17, 2018



Schneider Electric Recalls Square D Safety Switches Due to Electrical Shock Hazard

The power can stay on when the safety switch handle is in the “OFF” position, posing an electrical shock or electrocution hazard to consumers.

Remedy:

Consumers should immediately inspect installed safety switches by moving the handle to the “OFF” position. If the power stays on when the handle is in the “OFF” position, contact Schneider Electric for a free replacement safety switch and free service support to install the replacement switch. If the safety switch is not installed and included in the recall, contact Schneider Electric for a free replacement safety switch. Instructions on how to inspect the switch can be found at www.schneider-electric.us/gdss-safetyalert.

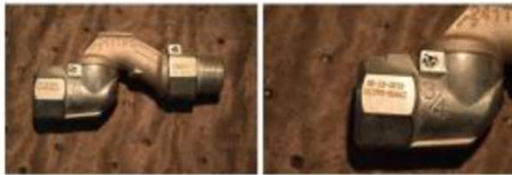
Units:

About 1,079,000

What we do at G2 Technologies

- Test & Measurement Industry is Critical to manufacturing:

MARCH 24, 2017



OPW Recalls Gas Station Hose Swivel Connectors Due to Fire, Explosion Hazards

The swivel connectors can separate from the hose or nozzle of the gas station pump and cause fuel spillage, posing fire and explosion hazards.

Remedy:

Gas station owners should immediately stop using and remove the recalled swivel connectors and contact OPW for a free replacement. The hose and nozzle can continue to be used without the swivel connector until the replacement is installed.

Units:

About 824,000

What we do at G2 Technologies

- Test & Measurement Industry is Critical to manufacturing:

DECEMBER 19, 2017



Superior Importers Recalls Mattresses Due to Violation of Federal Mattress Flammability Standard; Sold Exclusively at Amazon.com

The mattresses fail to meet the mandatory federal flammability standard for mattresses, posing a fire hazard.

Remedy:

Consumers should immediately stop using the recalled mattresses and contact Superior Importers or the place of purchase for instructions on receiving a free mattress cover to bring the mattress into compliance with the federal standard.

Units:

About 6,200

What we do at G2 Technologies

- Market description for Test and Measurement Companies
 - Estimated annual revenue in US – multibillion dollar market
 - Expected growth from 23.5 Billion to 29.8 Billion by 2023
 - Research Triangle Park, NC Companies
 - Internal
 - Eaton
 - UTC Aerospace
 - John Deere
 - Honeywell
 - External
 - G2 Technologies
 - Wineman
 - Avera
 - Circuit Check

What we do at G2 Technologies

- Why it's interesting work?
 - Each project is different and unique
 - Challenges to overcome
 - Thinking outside the box
 - Creative
 - Partner with great companies to improve their products
 - Solving real world problems

What we do at G2 Technologies

- Let's see some examples of what we do:
 - <http://g2tek.com/dcp/i/products-videos-mattress-life-test-system>
 - <http://g2tek.com/dcp/i/products-videos-connector-inspection-test-packaging-system>
 - <http://g2tek.com/dcp/i/products-videos-impact-tool-test-system>
 - <http://g2tek.com/dcp/i/products-videos-automobile-inspection-system>
- Other videos: <http://g2tek.com/> | Products | Videos

Types of Positions

- Technicians
 - 3D CADD
 - Assembly
- Purchasing
- Engineers
 - Mechanical
 - Electrical
 - Software
- IT / Database Administration

Key Soft Skills for working at G2

- Ownership and accountability; own it; hold yourself and others accountable for results
- Being able to communicate well with a diverse audience
- Ability to work well with others in a team environment; including people not in your normal social circles
- Positive "can do" attitude / get it done
- Work ethic; be on time, don't cut corners, don't interact with social media during the business day; don't be distracted by text messages, be engaged...
- Honesty and integrity
- Desire to learn
- Time management and organization skills

Key Technical Skills for working at G2

- Attention to detail
- Good with your hands
 - Mechanical – “turn a wrench”
 - Electrical – wiring / soldering / debugging
- Ability to read and follow technical documentation
 - Schematics
 - Assembly drawings
- Problem solving
 - Remote and Onsite Troubleshooting
- Aptitude to learn and apply new technologies

Education Requirements

- Engineering Technicians
 - High School Diploma
 - Certificate in Electrical Systems Technology or Industrial Wiring (Wake Tech)
 - AAS Degree
 - Mechanical Drafting
 - IPC Certification; NEC certification (Preferred)
- Engineers
 - BS in Electrical Engineering
 - BS in Mechanical Engineering
- Software
 - BS in Computer science
 - National Instruments CLAD, CLD, CLA, CLED (Preferred)
- Purchasing
 - High School Diploma
 - Associates degree in Business
 - Certified Purchasing Professional (Preferred)

Current Gaps in Candidates

- Problem solving (thinking outside the box)
- Clear vision of what they want to do
- Work ethic vs job expectations
- Advancement expectations
- Desire to learn
- Time management and organization skills

Advice for Students

- Learn about the options...
- Talk to friends, family, and teachers
- Take advantage of, “Bring your Family to work” days
- Look for opportunities to shadow people in various fields
- Grades Matter
- Find your passion / what excites you