TECH PATHWAYS

Under the Hood Journal

January 2026

Breaking Down Automotive Electricity

For many new technicians, electricity can feel intimidating. Wiring diagrams look complex, and there's often a fear of getting shocked or overwhelmed before ever picking up a test lead. One of our goals in Tech Pathways is to remove that fear by teaching electrical systems from the ground up.

This month, pre-apprentices are learning the fundamentals of 12-volt direct current automotive electrical systems. We strip circuits down to their basics and show how many components, fuel pumps, windshield wipers, radiator fans, blower motors, and more, operate on the same simple principles. A key focus is the Bosch relay, an electrical switch that allows a low-amperage control circuit to safely command a high-amperage load.

By breaking complex systems into manageable pieces, students begin to see that automotive electricity is logical, repeatable, and learnable. They are currently building their own fan circuits from scratch on a pegboard, so stay tuned for updates next month!

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Professionalism in the Modern Shop

During Unit 2 of the Everyday Champions leadership curriculum, we introduce weekly professionalism topics that challenge students to rethink what it means to be a technician today. The automotive industry has changed, and so have expectations. Today's dealership technicians are serving customers who expect a high level of care, trust, and professionalism.

Recently, we focused on appearance, cleanliness, hygiene, and brand representation. To make the lesson tangible, students saw a visual contrast between our two mentor technicians. One presenting a polished, professional image, and the other intentionally showing what happens when those standards are ignored. The difference was immediate and impactful.

This lesson goes far beyond clothing or grooming. It reinforces that professionalism communicates respect for the customer, the team, and the work itself. Our students are learning that how they show up matters, and that excellence in the shop includes both technical skill and personal presentation.

What Our Current Apprentices Are Up To

Talk about "No job too big!" This week, our Apprentice, Levi, successfully completed an engine replacement on a 2010 Toyota Camry. This extensive task included removing the old engine, transferring all necessary components to the new engine, and repairing damaged wires and cracked vacuum hoses. On top of all of

that, Levi ALSO took the initiative to mentor two high school shadows who assisted him throughout the project. Incredible effort on Levi's part, and what an amazing experience for his future as a Technician.

Weather Announcement!

As the snow starts to fall and winter settles in, here's a quick reminder about our weather policy. We'll follow the school district's lead, if schools close for bad weather, we'll do the same. Don't worry, though! We'll keep students in the loop through the *Band* app so they know exactly what's happening.

If we need to make up for lost time, we'll work together to figure out a plan, whether that's at-home activities or extra shop time. Either way, we've got them covered!

Stay cozy, have fun in the snow, and remember to stay safe out there.

Exciting Upcoming Dates

- **Tech Pathways Closed:** February 13, February 16, March 16
- **Open Shadow Event Days:** Tuesdays & Wednesdays in February
- **Summative Assessment Parent Night Event:** Wednesday, February 25, 6PM
- **10 Points of Separation Escape Room:** March 4 - during normal class hours

Stay Connected

Feel Free to send this to friends and family, and encourage them to sign up to stay informed: FOLLOW THIS LINK

For any questions or further information, please contact us at futureofauto@hanoverautoteam.com.

We look forward to another fantastic year of learning and growth together!