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Up next on ATE-TV, Industrial manufacturing goes high tech.

Multi-skilled technicians are a critical component in today's manufacturing workforce. Employers are looking for candidates with diverse skills that can be adapted to many industrial situations.

We supply local industry with multi-skilled technicians. This person can handle the welding, the HVAC requirements, the machining, the industrial mechanics, the industrial electrician, the PLC programming and the robotics programming. All of these are going to have to be encompassed in one person, in one employee in order for them to compete.

I was working at an aluminum plant, and I was a high candidate for a supervisor, but they wanted us supervisors to have these skills or knowledge to work on PLC or motor controls or change a limit switch.

Let's change that red switch and hit start button and start circuit.

Students were installing a sealing circuit, very much like a relay circuit, except that it's done in ladder logic, which is for programmable logic controllers.

You're going to have to branch it around the stop switch.

How does that relate to what you learned back there in motor control switch?

In Motor Controls 1 and 2 we will wire in the sealing as to where on here we're doing it on the computer.

Motor controls, PLCs, drive systems and things like that, these are core things that you just got to have. It's almost as important as having a high school diploma.

Go to the plastic side.

We teach using a mechatronic trainer so that students can see the integration of the four things that make up mechatronics. They can see the fluid power, mechanical/electrical and the PLCs, how it integrates together to produce the final product.

Let us know that it's going to pick it up and then put the spool in there.

We teach what's called a systems approach, and what that means is we try to teach the students a system and learn on that system and then we teach the theory from that system.

It makes me very comfortable with technology, and my mechanical abilities as a whole is broad enough that I don't have to limit myself to one specific job.

And they really emphasize on what you really need to know as far as hands-on training.

Bob's going to give you your what?

My reverse. Number 6 would give me forward.

When they come into the lab, that's where we challenge them to show us that they know the content frontwards and backwards. That's where we have problem-based scenarios that they have to be introduced to.

It's more a matter of lab coats and meters than it is wrenches and grease.

You have control of the robot with this.

A lot of people still have the dirty hands image of technical education, and so much has changed with automation and motion control and robotics and things, it separates the older generation technical workforce from the new.

You expect to be able to fix whatever the problem is. They call you in to say, hey, we're not running; we need you to find out what it is. It's everybody from production to the maintenance management, plant manager, everybody's depending on you to go in and diagnose this problem and fix it.

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Thanks for watching.