

# LEARN *More*

about  
career and technical  
education



**Ed**  
Northwest  
Education  
Services

## Robotics & Automation

Explore mechanical and electrical concepts that you find in the automated manufacturing field. Active learning occurs in the shop with hands-on projects, exploration of 3D-modeling, and basic programming skills which will prepare students for college or workforce entry.

### Core Skills

- Fundamentals of CAD and 3D printing
- Fundamentals of AC/DC circuits
- Knowledge of mechatronics subsystems
- Fundamentals of hydraulics/pneumatics
- Basic robotics programming
- Introduction to machining
- Teamwork/employability
- Communication skills

### Future Career Options

- Mechatronics industrial maintenance tech
- Hydraulic/pneumatic technician
- Mechanical or electrical engineer
- Material handling robotics
- Field service technician
- Automation engineer

### Certifications/Academic Credit

- English and/or math credit
- VPAA elective credit
- Industry hydraulic technology level 1
- Industry pneumatic technology level 1
- PASSES EDGE workplace safety certificate
- FANUC Material Handling Level 1
- FANUC IR Vision Level 2
- Postsecondary articulated credit
- OSHA basic training
- Early college eligibility

### Setting Students up for Success

Making connections with guest speakers, field trips, and taking advantage of job shadows, co-op and work experiences give students a head start in the automated manufacturing industry.

### Leadership & Scholarship Opportunities

Club participation, competition and leadership can occur with the Autonomous Innovative Vehicle Design Team, National Technical Honor Society and Student Council.

### Interested?

- 📞 Talk to your high school counselor
- ☎ Call us: 231.922.6273
- 📍 Visit us: 880 Parsons Rd, Traverse City
- 🌐 Browse the web: [NorthwestEd.org](http://NorthwestEd.org)

## 21 Career & Technical Programs

Agriscience	Health Sciences
Auto Repair	Information Technology
Business Careers	Power Equipment
Collision Repair	Precision Machining
Construction Trades	Public Safety
Culinary Arts	Robotics & Automation
Early Education	Teacher Academy
Electrical Occupations	Web & App Development
Engineering Academy	Welding
Film & New Media	Writers Studio
Graphic Arts	

## Student Support & Guidance

- Career Tech staff teach and reinforce positive work ethic in all students.
- Attendance and academic progress is monitored to guide students toward individual growth and career planning that will establish a pathway to a meaningful life.
- Seminars are provided on college planning, financial aid and scholarship opportunities.

## Job Training & Experience

Career Tech programs offer all students a chance to:

- Gain hands-on training
- Use state-of-the-art technology
- Demonstrate leadership, workplace readiness and ethics
- Participate in internships, job shadows, work experience, or paid co-op experience