Careerline Tech Center – Mechatronics/Robotics

Instructor: Jamie Golden  
Phone: 616.738.8950 x4237  
Email: jgolden@oaisd.org  
Paraprofessional: Russ Klein  
Phone: 616.738.8950 x4235  
Email: rklein@oaisd.org

THE MECHATRONICS FIELD
Mechatronics is the combination of precision mechanical engineering, electronic control, and systems thinking in the design of products and manufacturing processes.

MECHATRONICS AT CAREERLINE TECH CENTER
Working with highly automated equipment, students learn how to design and build complex systems like those used in robots, electric cars, and manufacturing processes.

MAIN AREAS OF FOCUS
Robotics Programming  
Electronics  
PLC Programming  
Mechanical Components  
Equipment Controls/Sensors  
CAD/CAM  
CNC

Learning Environment
In our modern world, electronics and mechanical components work together to make up complex systems from a car to a robot to automation lines. Mechatronic students learn to design, build, program, and troubleshoot electro-mechanical systems using the principles of mechanics, electronics and computer science. Through hands-on projects, competitions and instruction, students learn about electronics, robotics, equipment controls and sensors, programming, hydraulics/pneumatics, CAD/CAM, basic machining, and CNC. Mechatronics students will design and build vex robotic systems, an electric race car, and a fully automated process through the application of earned skills.

YOU MIGHT TAKE THIS CLASS IF YOU
like technology  
like working with computers  
are mechanically inclined  
think logically  
are good at problem-solving  
prefere hands-on learning  
have good math skills
JOBS YOU CAN PREPARE FOR WITH FURTHER EDUCATION
Mechatronics Engineer
Mechanical Engineer
Electrical Engineer
Manufacturing Engineer
Maintenance Technician
Robotics Programmer
Machine Builder Apprentice
Machine Repair Technician

STUDENT LEADERSHIP
Mechatronics students have the opportunity for leadership, competition, and community service through membership in NECA (National Electric Cart Association).

CERTIFICATIONS
OSHA
FANUC Programming

COLLEGE CREDIT
Students have the opportunity to earn college credit while still in high school through early college credit options and articulation agreements.

Direct Credit
Direct credit is actual college credit earned while in a Tech Center program. The credit appears on a college transcript and can be transferred to many colleges/universities throughout Michigan. A significantly reduced tuition is charged for each college class.

Articulated Credit
Articulated credit is credit that a specific college or university grants for classes taken at the Tech Center. Credit is posted to the transcript after the student has completed a certain number of classes. There is no charge for articulated credit and it cannot be transferred from one college to another.

The OAISD does not discriminate on the basis of race, color, religion, sex, national origin, age, height, weight, marital status, handicap, disability, or limited English proficiency in any of its programs or activities. The following office has been designated to handle inquiries regarding nondiscrimination policies: Human Rights Officer, Human Resources Department, Ottawa Area Intermediate School District, 13565 Port Sheldon Street, Holland, MI 49424 1-877-702-8600 (toll free)