



DriveOhio

Growing Ohio's Talent, from Pre-K to PhD





HOW IT STARTED...

Workforce Development 30-Day Report

July 2018

CONTENTS

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Listening Tour
Pilot Programs
Next Steps

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Version: 1.0

ENGAGING

Pre-K to 12



Problem-Based Learning

K-12 Design Challenge
PreK-12 Classroom Visits
STEM Community Outreach

PREPARING

Career Tech + Higher Ed



Work-Based Learning

Capstone Challenge
On-Campus Events
Internships

UP-SKILLING

Incumbent + Re-Entry



Industry Credentials

Automotive Technicians
Commercial Drivers
Engineers + Analysts





HOW IT'S GOING...





Educator Toolkit

Free Curriculum | Career Connections | Professional Development



1,000+
Downloads





Campus Collection



Air Mobility

Learn about the design, functionality, and impact of vertiports on air mobility and logistics.



Automated Vehicles

Examine the development, benefits, and ethical considerations of self-driving vehicles in today's society.



In Classroom

Comprehensive lesson plans, slide decks, and teacher notes on drones, EVs, connected, and automated vehicles.



Beyond Class

Immersive learning experiences and challenges for students and professors on advanced mobility technologies.



Research & Development

Explore and apply for ODOT STAR program grants focused on pioneering research in advanced mobility.

Coming
soon in
2025

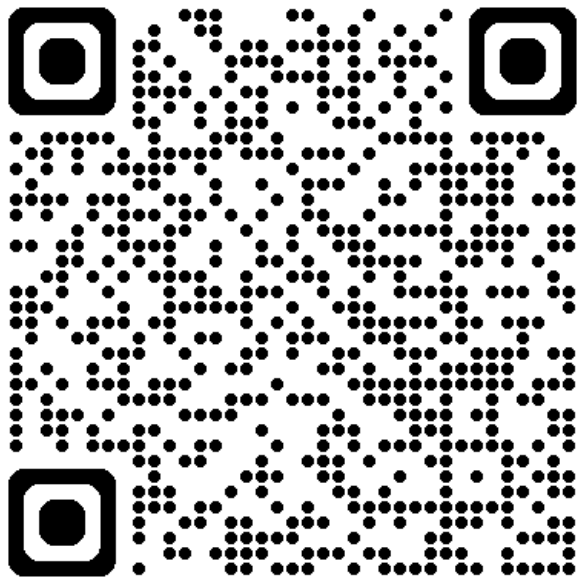
AUTO AND ADVANCED MOBILITY WORKFORCE STRATEGY



Governor's Office of
Workforce Transformation



The Ohio
Manufacturers'
ASSOCIATION



workforce.ohio.gov



**10,000 NEW JOBS
(and counting...)**



2,000 new manufacturing jobs 500 aircraft per year



ddc

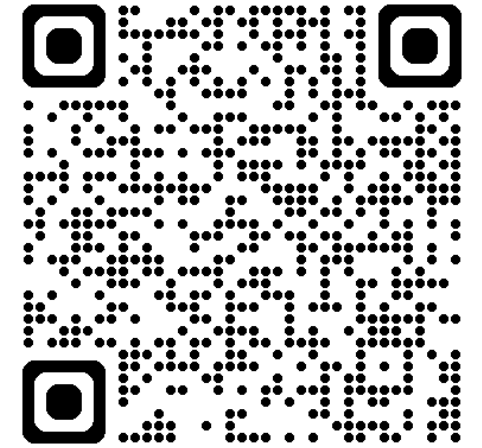




4,000 new manufacturing jobs
10,000+ products per year



2,200 new jobs



LGESHonda.com/careers



Operators

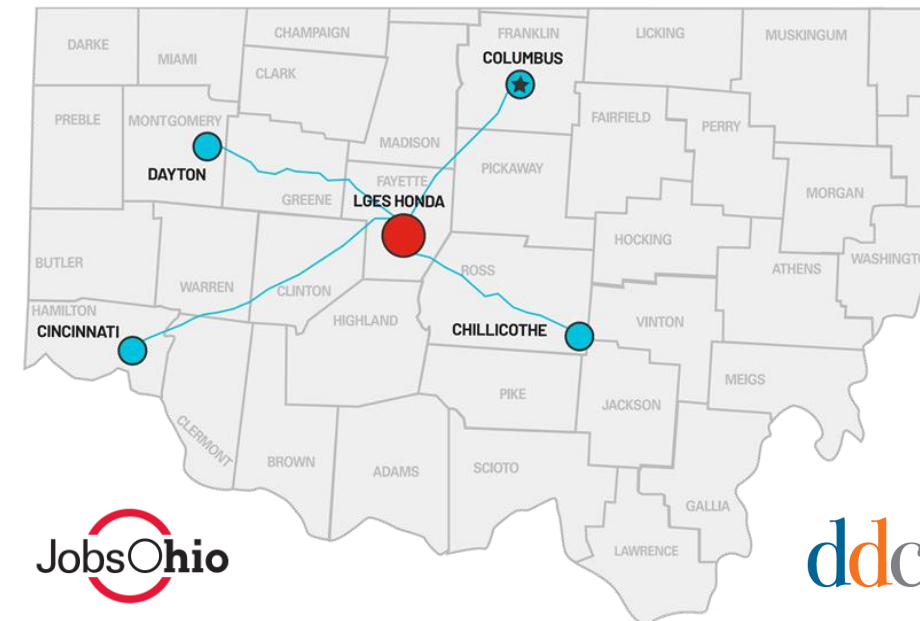
This is an accessible position with lots of room to learn and grow. High school diploma, GED or equivalent experience desired.

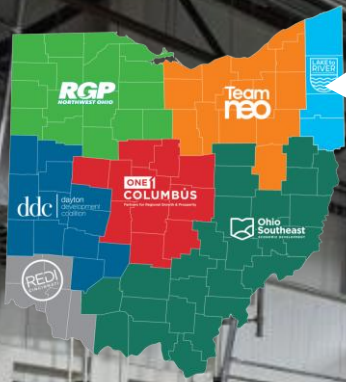
Technicians

This is a mid-level role with opportunities to learn more advanced skills. Associate degree or related experience in engineering technology, advanced manufacturing or similar field desired.

Engineers & Support (HR, Finance, Supply Chain, Facilities, etc.)

These positions require specific advanced experience and skill level dependent on area of interest. Bachelor's or master's degree in engineering or related field desired.





2,200 new jobs
100 million+ EV battery cells



ultium  cells



Team
neo



1,800 new jobs

Union, Selby, and Logan Counties:

\$700 million

Honda's retooling of existing plants for EV production

327 new jobs

Lucas County:

\$760 million

GM's EV propulsion units in Toledo

Lorain County:

\$1.5 billion

Ford's new EV manufacturing plant

1,800 new jobs

Trumbull County:

\$100+ million

Foxconn manufacturing multiple EVs

\$2 billion

GM and LG Chem built Ultium Cells battery plant

Tuscarawas County:

\$40 million

Battle Motor's expansion and addition of an EV line

434 new jobs

Shelby County:

\$915 million

SEMCORP building new facility to manufacture a key component of lithium-ion batteries

1,200 new jobs

Montgomery County:

\$477 million

Joby Aviation to build electric air taxi manufacturing facility at Dayton International Airport

2,000 new jobs

Fayette County:

\$3.5 billion

Honda and LG Energy Solution to build battery plant

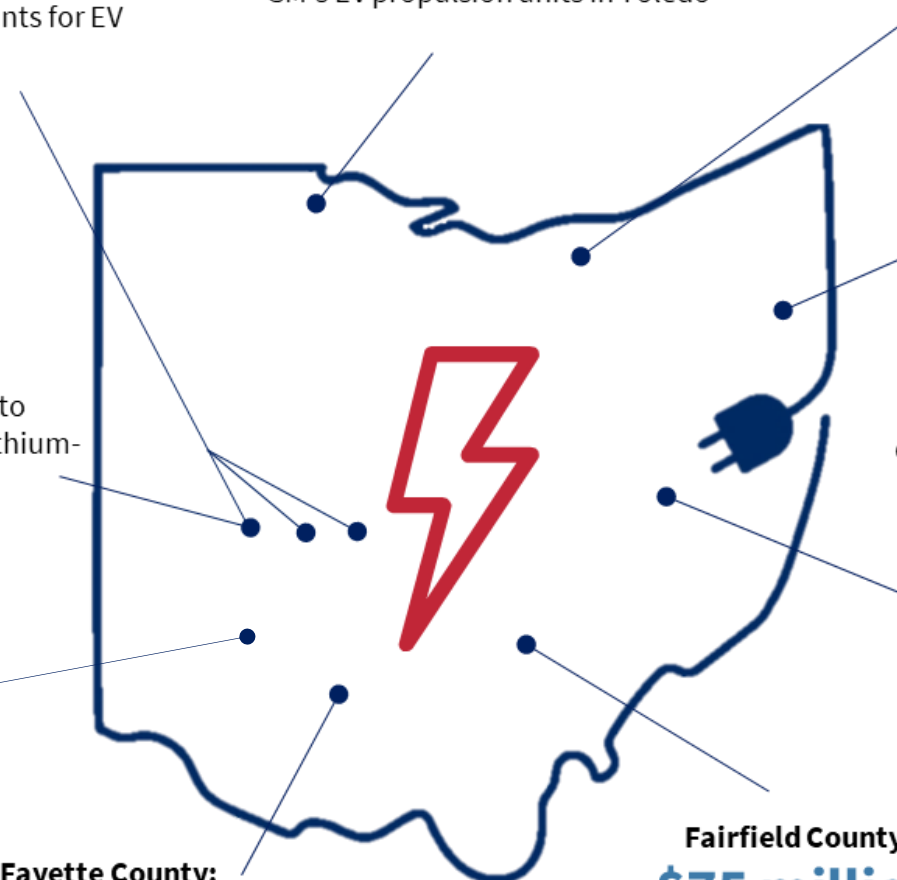
2,200 new jobs

Fairfield County:

\$75 million

Cirba Solutions to expand EV battery recycling facility

150 new jobs



OHIO MANUFACTURING COMPETENCY MODEL

ultium

-chargepoint+

WORKHORSE

ATS

electrify
america

Electrification
Coalition

AES

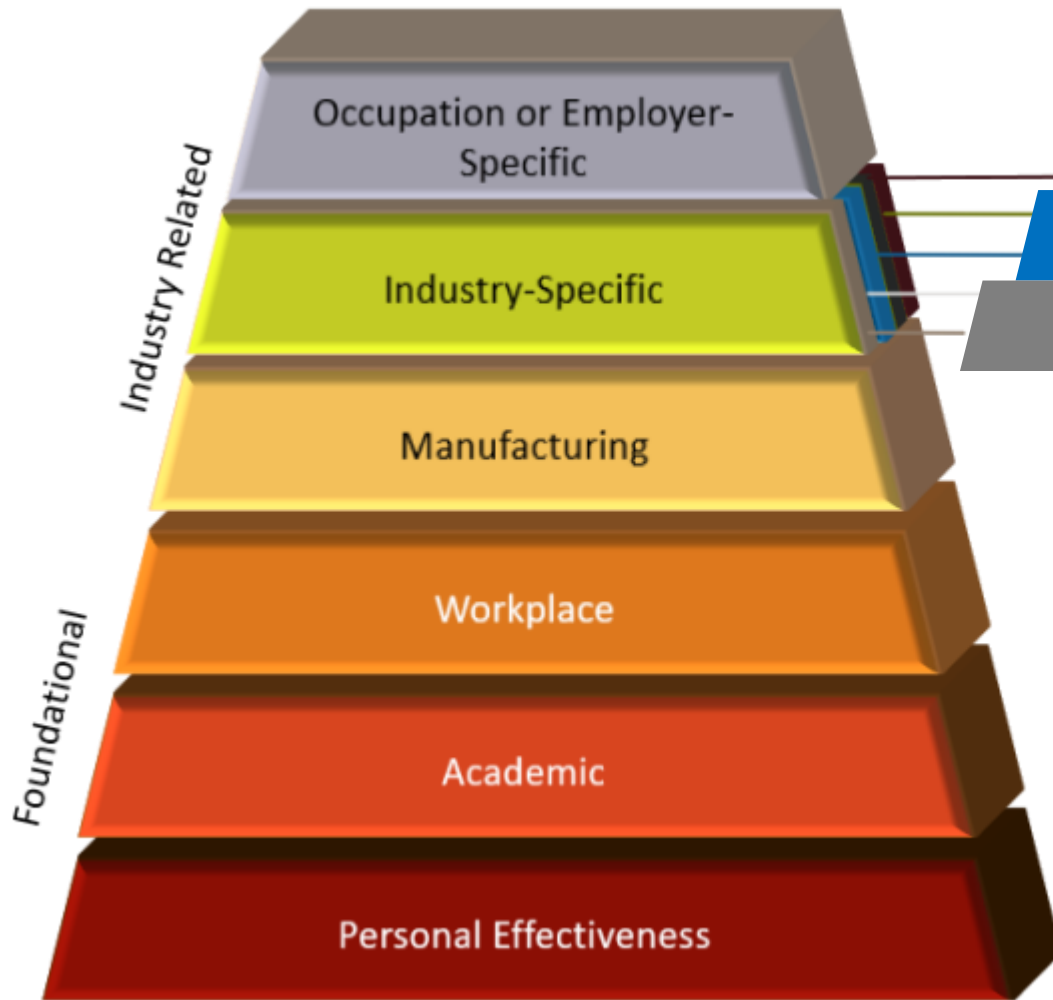
LINCOLN
ELECTRIC

FOXCONN

HONDA
LG Energy Solution

Ford

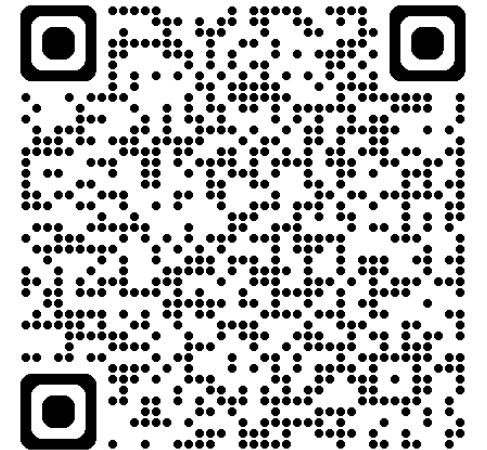
OWL



Automotive / Batteries

Aerospace / Defense

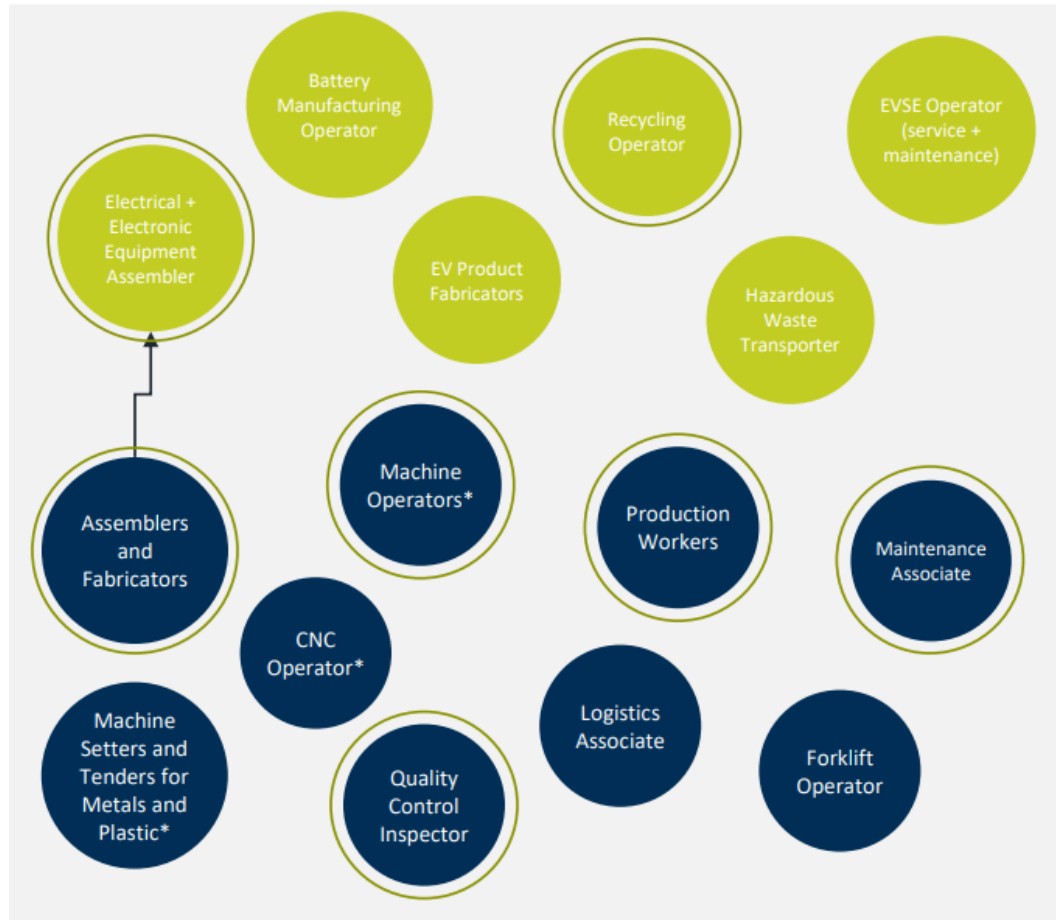
Semiconductors



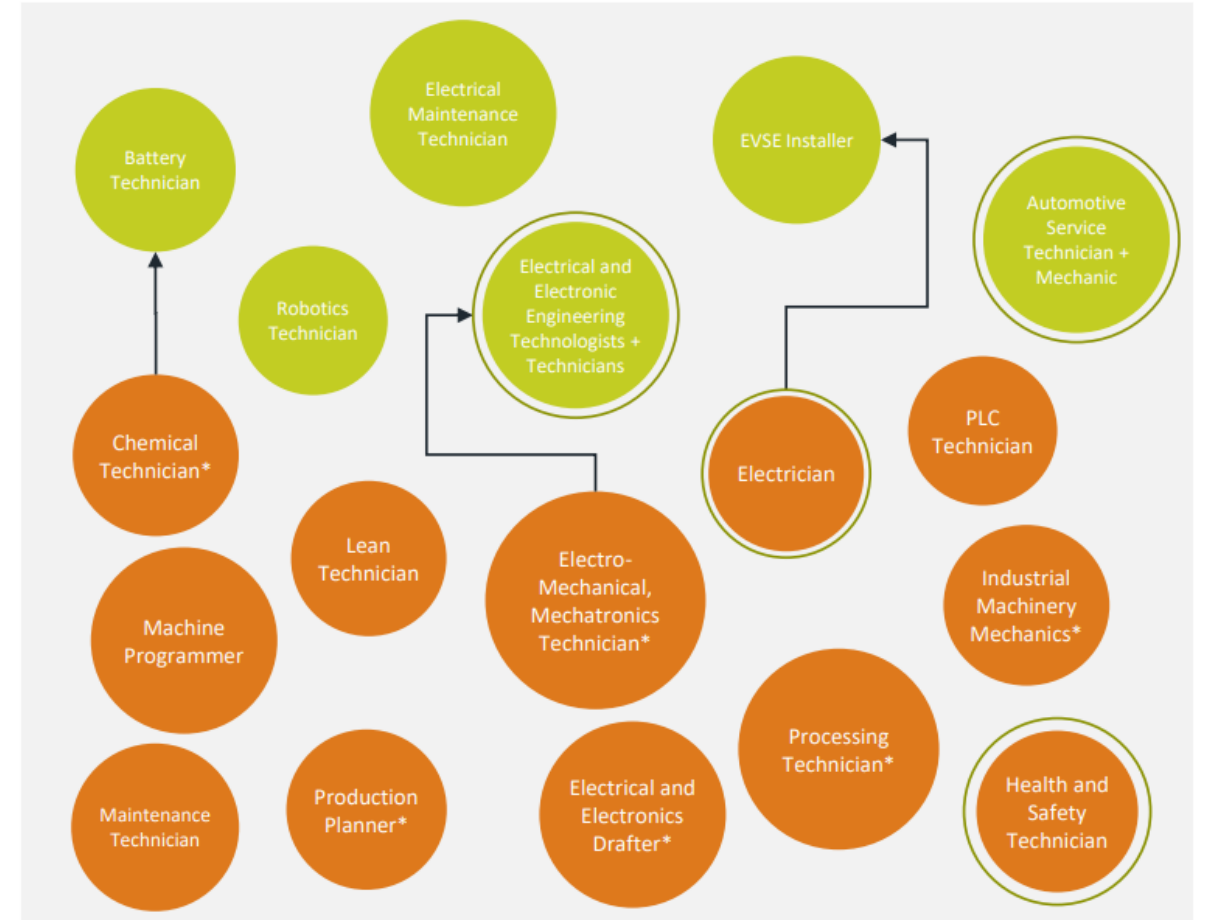
Governor's Office of
Workforce Transformation

MANUFACTURING JOBS

Industry-Specific



OPERATORS



TECHNICIANS



PREPARING OHIO'S EMERGING WORKFORCE



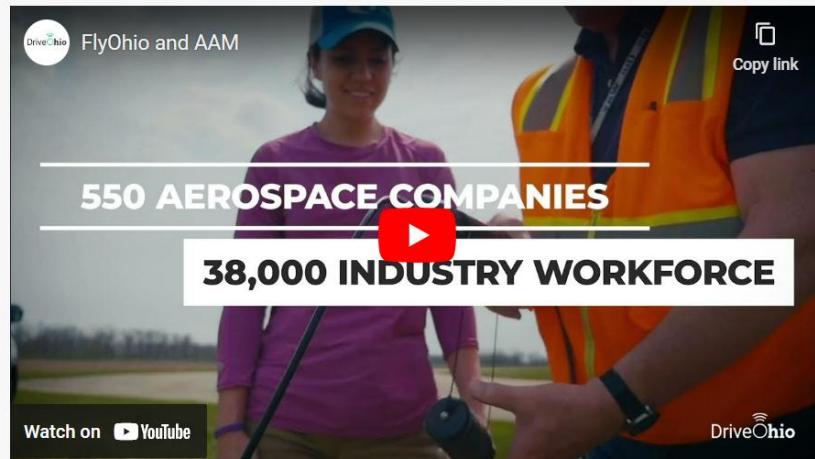
Educator Toolkit

Free Curriculum | Career Connections | Professional Development





Drones & Air Mobility



Advanced Air Mobility in Ohio

Learn how Ohio is leading the revolution in advanced air mobility through FlyOhio, ODOT's coalition of AAM stakeholders.

4:31

Career Connections - Drone Pilots

Hear from professional drone pilots about the challenges and opportunities in the field.

31:43

Careers in Smart Mobility

Hear from students and recent grads about what attracted them to careers in smart mobility and its opportunities.

3:49



Flying into the Future: Classroom Presentation

EXPLORE THE FUTURE OF FLIGHT. Discover breakthroughs in air mobility and cutting-edge drone technology.

Discover the myriad of career opportunities in this rapidly evolving, diverse and growing industry.

Find Credentials & Career Ideas



After School & Summer Toolkit



Cardboard Vertiport Challenge

WHERE IMAGINATION TAKES FLIGHT. Hands-on curriculum guiding students to create "drone airports" and code test flights.



Smart City Adventure

CUTTING EDGE TECH AS A CAREER PATH. Interactive STEM learning for an inside look at the technology behind electric vehicles, drones, delivery robots, and more!



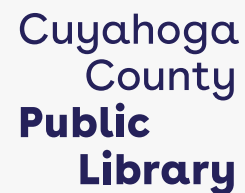
Test Track Construction and Pavement Marking

TRANSPORTATION IS TRANSFORMING. Explore the landscape of smart vehicles and tech-equipped roads with this hands-on project from University of Cincinnati.



Traffic Light Simulation

THE INTERSECTION OF SAFETY AND TECH. Learn about traffic signals and intersection safety with this interactive activity from University of Cincinnati.



FAA Airport Design Challenge

An interactive K-12 learning opportunity where small teams of students work together to learn about their local airport and complete design tasks in Minecraft.



Ohio Afterschool Network

STEM resources, toolkits, events, and initiatives including Moonshot Ohio that support afterschool and summer programs statewide.



LEGO Education

A collection of LEGO Education resources specific to innovative transportation and smart mobility.



The PAST Foundation

Portable Innovation Labs

Free STEM equipment and curriculum, providing afterschool and summer programs with resources they may not be able to purchase on their own.



NASA Advanced Air Mobility Toolkit

The Advanced Air Mobility STEM Toolkit provides educators and students with cross-curricular content related to NASA's work with air taxis and drones.



Smart City Adventure





Cardboard Vertiport Challenge





Ohio DriveOhio

Connected & Automated Vehicle Education



University of
CINCINNATI

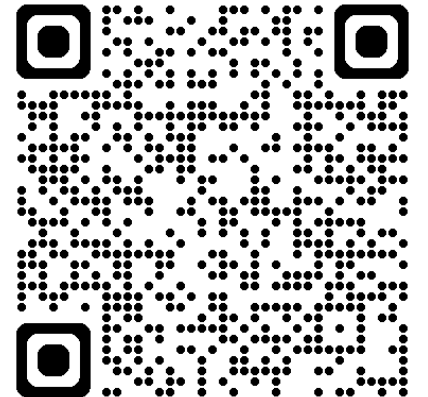
THE GASKINS FOUNDATION



TOOLKIT TUESDAY

Bite-Sized Learning for Busy Educators

**15 webinars
750+ registrations**





Department of
Education &
Workforce



Career Awareness

Career Exploration

Career Planning

Industry-Recognized Credentials

education.ohio.gov

Engineering



Manufacturing



Transportation



Auto & Advanced Mobility
Program Design Guide



**CERTIFIED
DRONE
PILOT**

6 points



6 points each

Portable Innovation Labs

#ThisIsPAST



**Autonomous
Delivery**

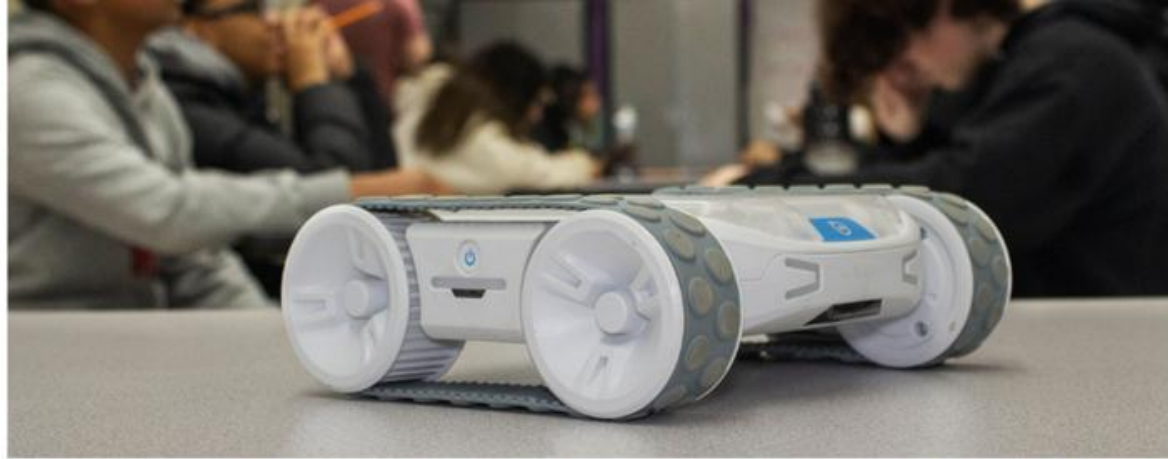


Powered by PAST in partnership with **BATTELLE**
pastfoundation.org • 614-340-1208 • stemkits@pastfoundation.org



DriveOhio



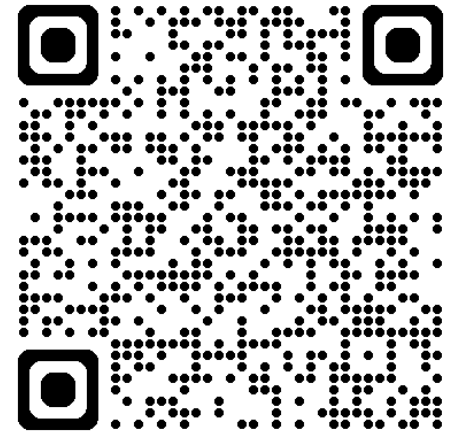
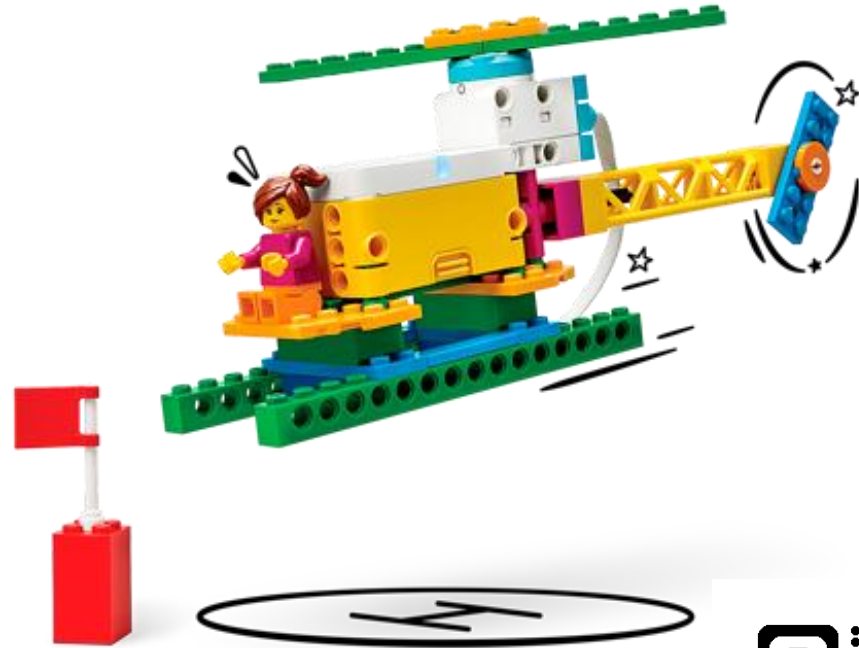
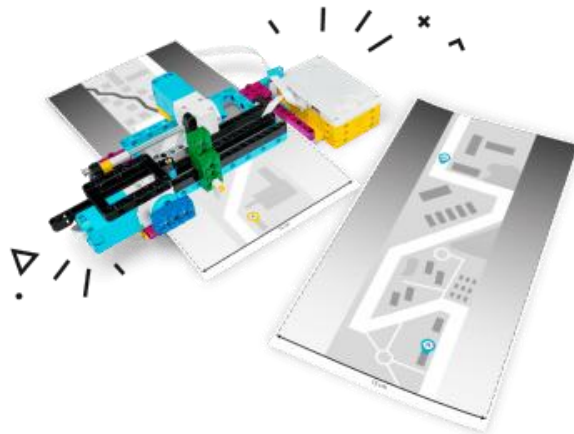




educationTM

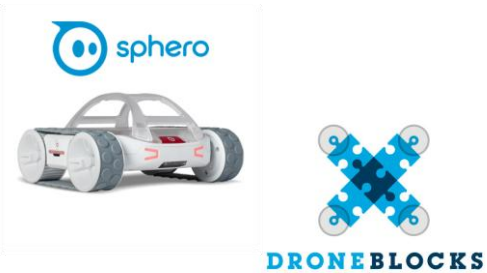
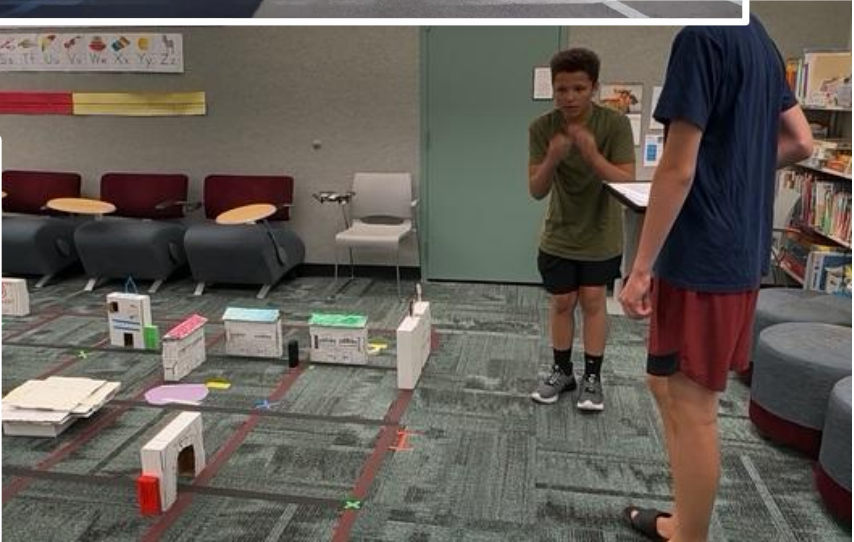
Exploring Innovative Transportation

LEGO® Education SPIKE™ Essential Lesson Recommendations



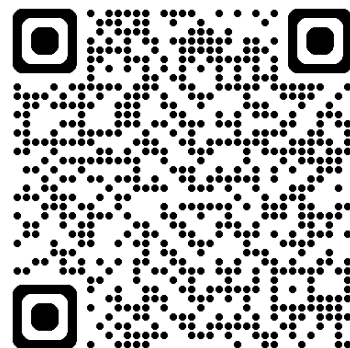


Cuyahoga
County
Public
Library





FAA Airport Design Challenge

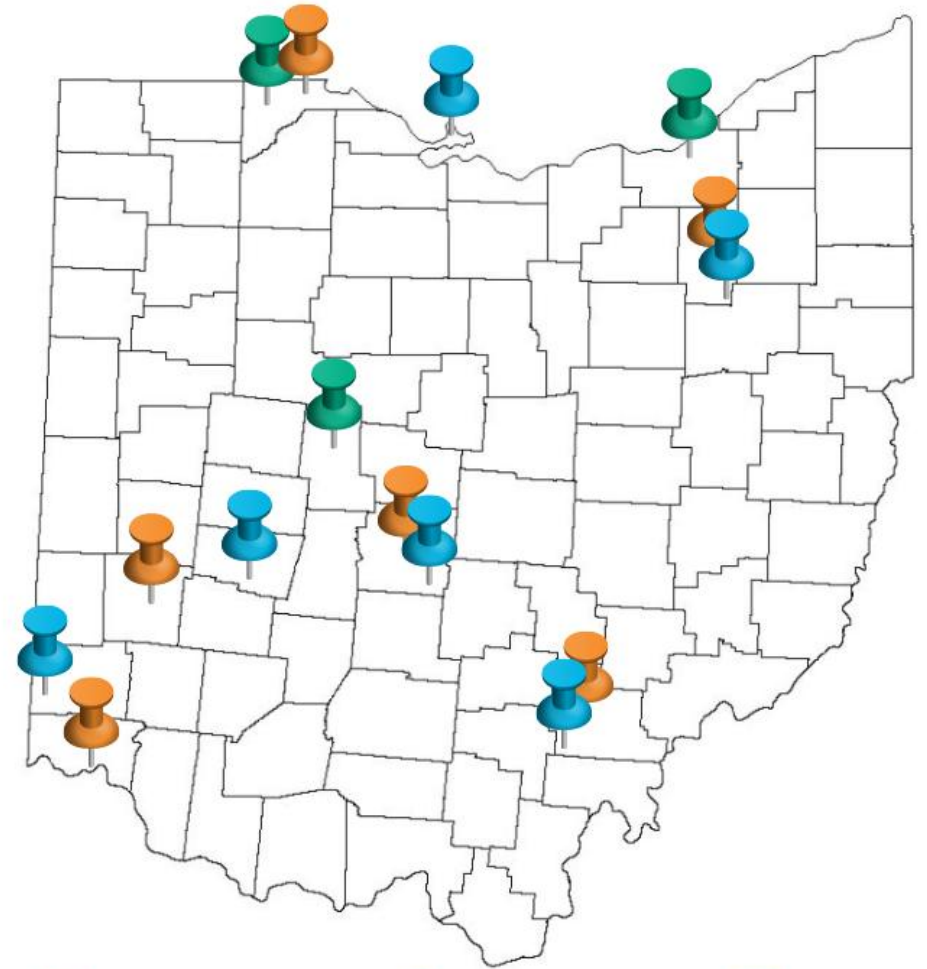


[FAA.gov/ADC](https://www.faa.gov/ADC)



DriveOhio

Vertiport Innovation Challenge



High School



Higher Ed



Airport



Vertiport Challenge











ERIE-OTTAWA INTERNATIONAL AIRPORT



Akron Canton Regional Airport (CAK) Electrical Infrastructure Master Plan

FOR THE OHIO VERTIPORT INNOVATION CHALLENGE

PRESENTED BY
SEMILORE AKINTELURE
KATIE HORN
KYLE REDIGER


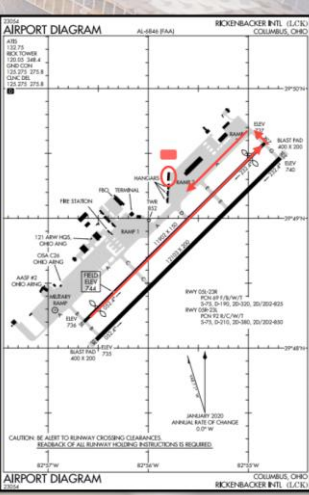






Columbus Region
The Ohio State University | Rickenbacker International Airport





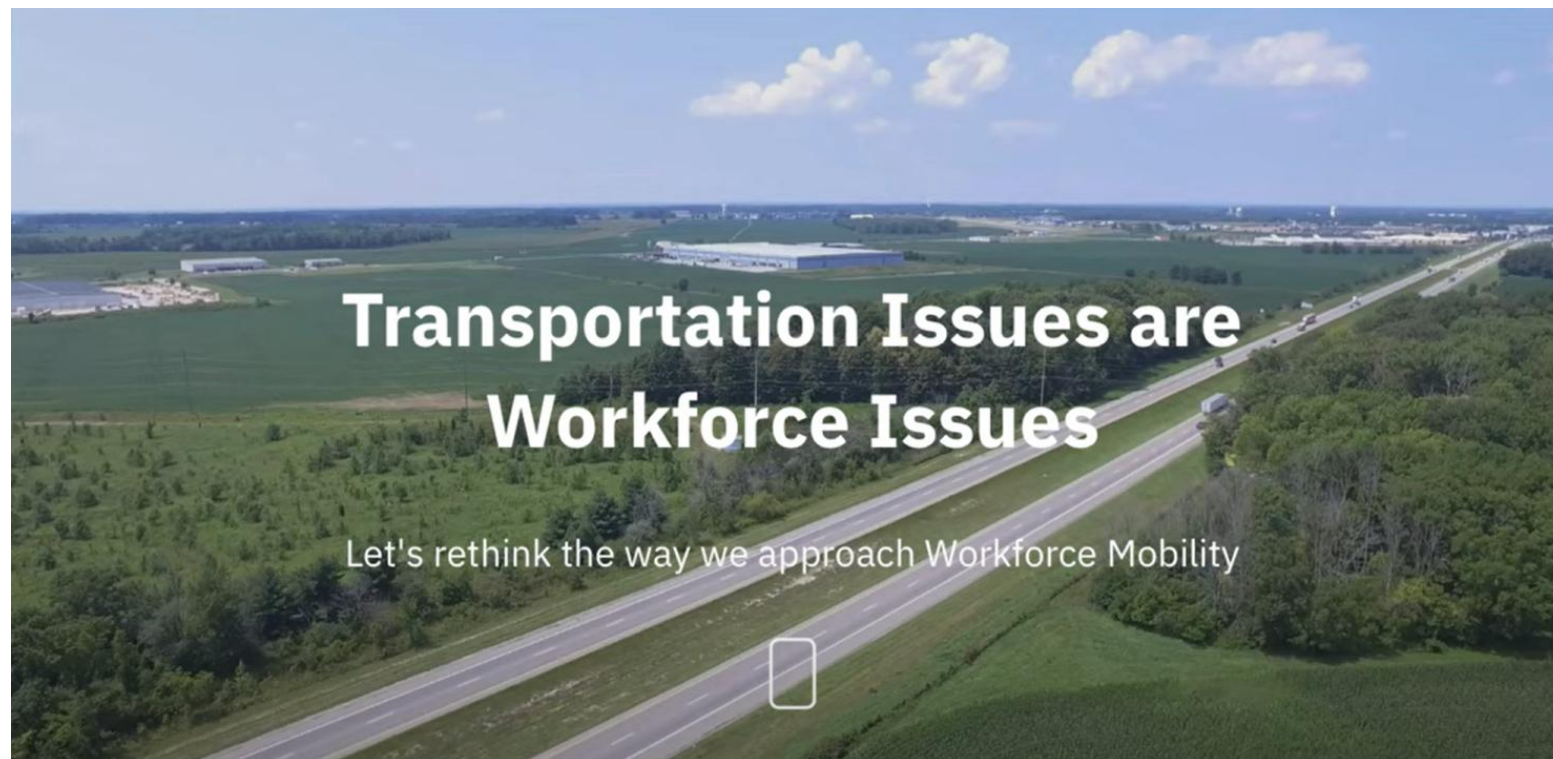
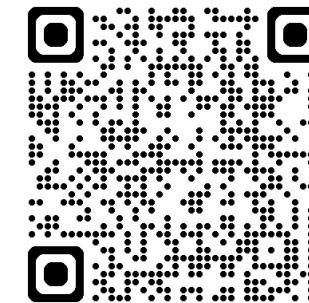






Rapid Innovation for Public Impact

The Ultimate Experiential Learning



Introducing: FlyOhio Connect



Participate

Participate in this AAM Forum by answering questions about your current or planned air operation in under one hour to join the conversation.



DriveOhio

UAS Center



Connect

By bringing together those who provide AAM services and those seeking to better understand it and plan for it, FlyOhio will work to ensure seamless, responsible implementation.



Innovate

With discussions on funding, technology, infrastructure needs, planned policy, and other industry trends, this will help keep Ohio's skies open.





WHAT'S NEXT IN 2025-26...

Ohio STEM Learning Network | Statewide Design Challenge



47,470
students participated in the
2023-2024 design challenge

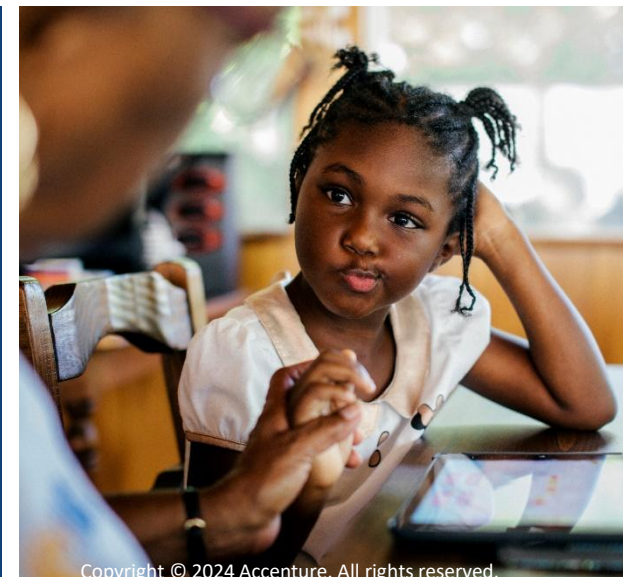
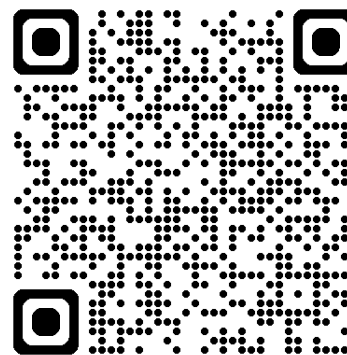


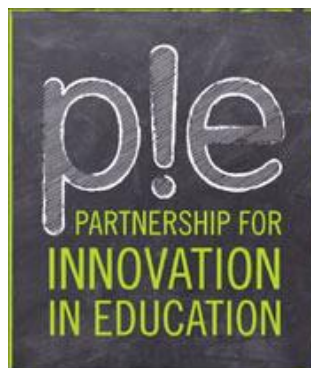
with **156**
educators

in all **7**
JobsOhio regions



Sign up today!







education™



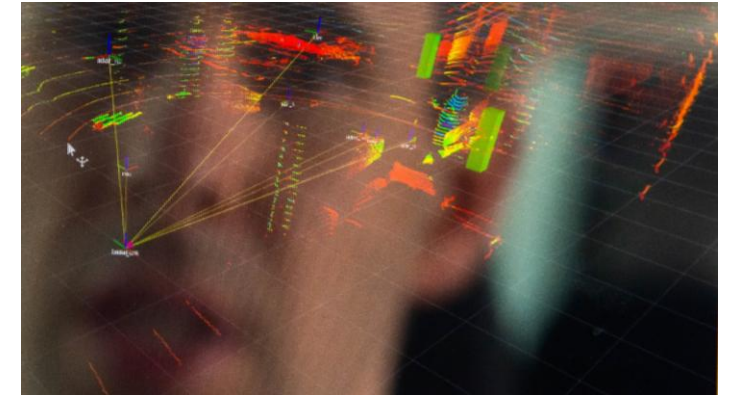
Work-Based Learning Starter Topics



**Air Mobility:
Vertiport Challenge**



**Automated Vehicles:
Route Planning**



**Automated Vehicles:
Data Analysis**



DriveOhio



TOOLKIT TUESDAY

Bite-Sized Learning for Busy Educators



Tuesday Apr 29
3:30PM ET

**FLYING DRONES WITH THE
COSI SCIENCE FESTIVAL**



educational service center
of Central Ohio

Tuesday May 13
3:30PM ET

**LAUNCHING INTO SUMMER
WITH TECH TALENT PIPELINE**



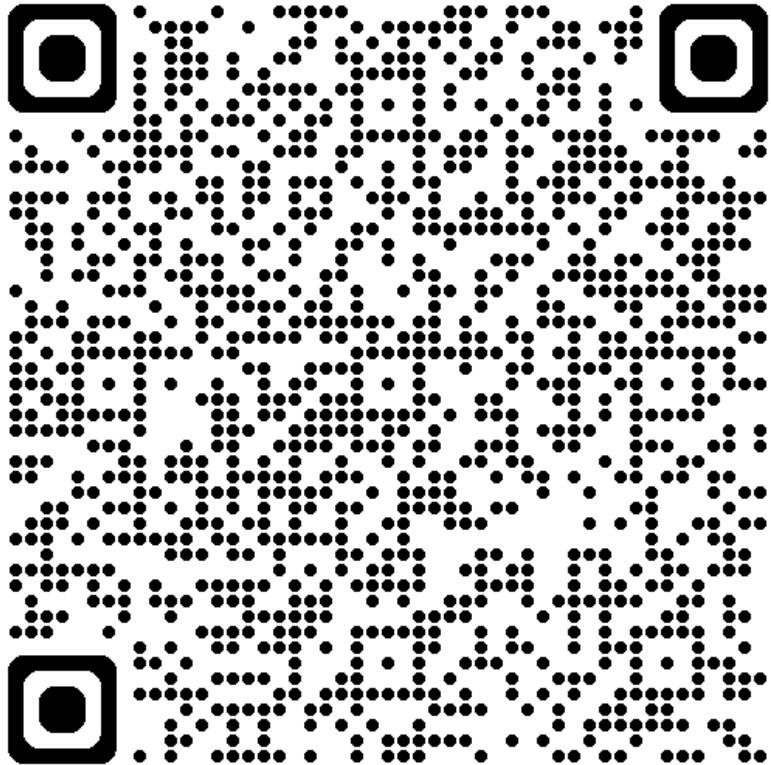
CLEVELAND
METROPOLITAN
SCHOOL DISTRICT



minority
TECH ALLIANCE



DriveOhio Educator Toolkit Survey



**Click here to complete
our Toolkit Survey!**



DriveOhio