

Pathway Systems: Connecting Industry and Education

Toyota and Gibson County Schools Team Up to Build Manufacturing Academy



N-MaC



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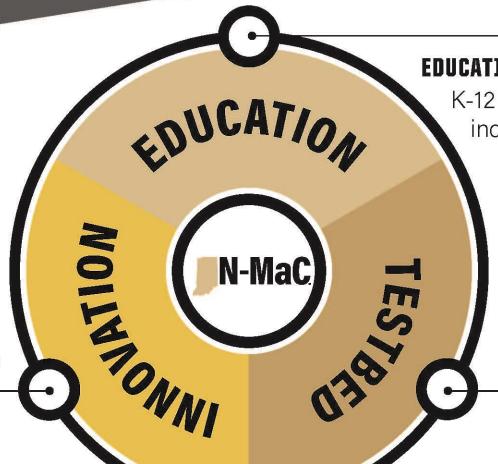
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INDIANA MANUFACTURING COMPETITIVENESS CENTER

INNOVATION & ENTREPRENEURSHIP

Assist manufacturers in the delivery of high-impact, high return projects



EDUCATION & WORKFORCE DEVELOPMENT

K-12 education, higher education, incumbent workforce

INTELLIGENT MANUFACTURING TESTBED

Accelerate the advancement and transfer of technical knowledge and expertise

IN PARTNERSHIP WITH









TOYOTA

Princeton, Indiana may be small, but to us, it's huge. It's home to Toyota Motor Manufacturing, Indiana, Inc., where over 7,000 Toyota team members assemble Toyota's rugged Sequoia and Highlander/Highlander Hybrid SUVs, and the popular family minivan: the Sienna. What's more, all across Indiana, thousands more people are employed at our supplier companies, so, all things considered, our investment in Princeton and the state is anything but small: more than \$4.317 billion and growing!

Gibson County Schools



North Gibson School Corporation

Princeton High School

Students: 1,986



East Gibson School Corporation

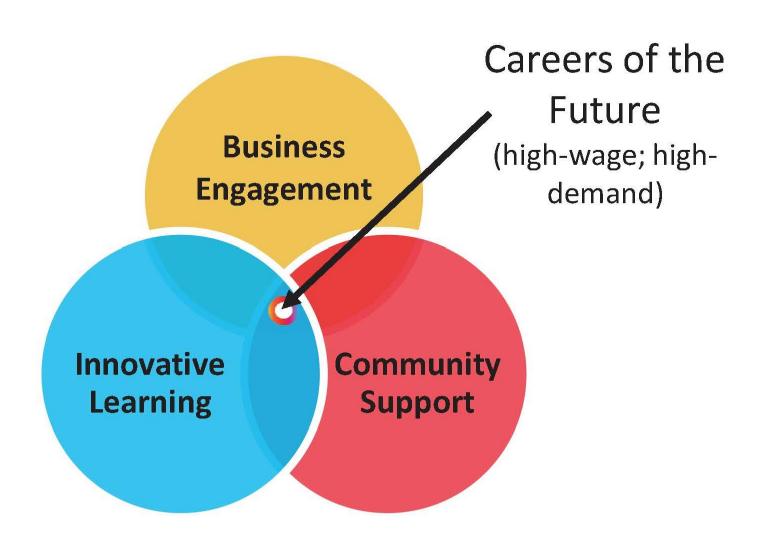
Wood Memorial High School

Students: 807

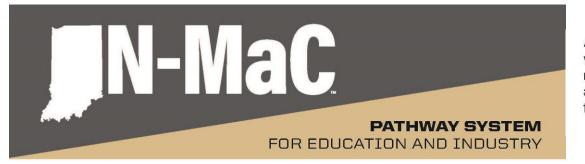




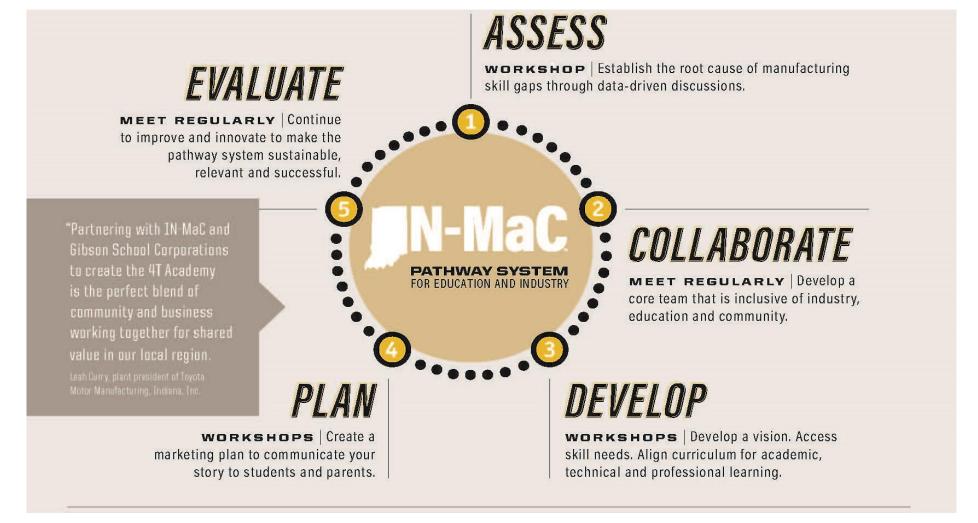
WHY
Pathway
Systems?



A PATHWAYS SYSTEM is about the coordination of people, assets, and resources. Aligning industry needs with K-12 and postsecondary education systems by promoting innovative models with embedded work-based and project-based learning, internships, and integrated professional skills.



At IN-MaC, we provide leadership and equity of voice when exploring career pathway systems that support relevant hands-on learning for students to acquire the academic, technical, and professional skills needed for today's workforce.



TOYOTA





A FUTURE OF LEARNING

Innovative programs—like 4T—are vital to the success of our students, community and future workforce.



ACADEMIC High schools will be graded on student performance after graduation with new completion requirements.



COMMUNITY

Regionally, 68% of students enroll in college, but only 38% complete. That coupled with a 2.5% unemployment rate creates many opportunities for change.

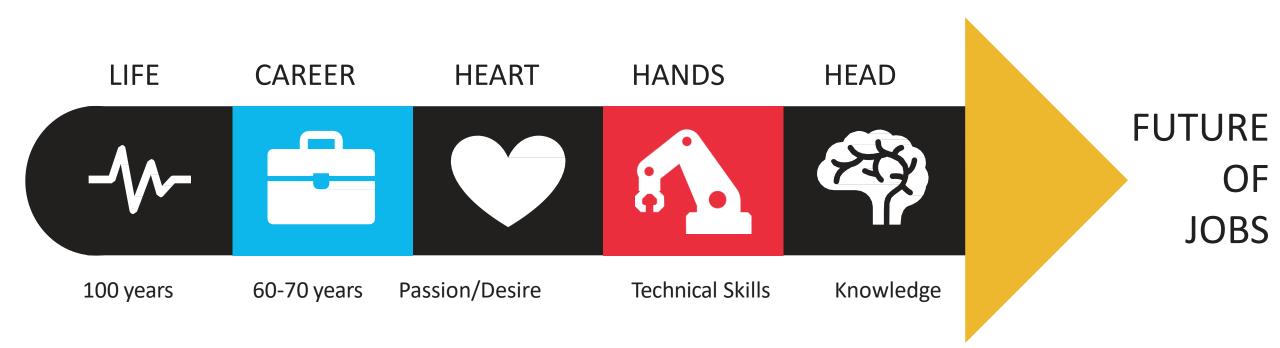


WORKFORCE

A growing need for basic technical knowledge and soft skills leave a future workforce unprepared.

FUTURE OF JOBS

A shift in job focus means employers and employees will need to adapt and better prepare for the future.



CURRICULUM **4**T

Freshman

Intro:

Manufacturing

Intro:

Engineering/Design

Computer Science

Intro:

Precision Machining

Sophomore

Principles Of Engineering

Advanced Manufacturing I

Computer Science II

Precision Mach. I

Junior

Advanced Manufacturing I & II

Industrial Automation
And Robotics I & II

Precision Mach. I & II

Industrial Technical Maintenance I

Senior

Internship

Industrial Technical Maintenance II

Precision Mach. III

Environmental Sustainability

^{*}All students will receive general education/Core 40 courses in addition to the above electives. Schedules may vary per high school.

Indiana Department of Education Academic Standards Content Framework

https://www.doe.in.gov/standards/cte-engineering-and-technology

Instructor with follow the CTE: Engineering and Technology Standards

- Advanced Manufacturing I
- Advanced Manufacturing II



4T Manufacturing Academy Employability Skills Plan

Freshman

Sophomore

Junior

Senior

rofessional Skills	Lifelong Learning: Demonstrate willingness to work and learn, and continually apply new knowledge.	Self-Confidence: Possess belief in own ability to succeed and assert self when necessary.	<u>Lifelong Learning:</u> Demonstrate willingness to work and learn, and continually apply new knowledge.	Self-Confidence: Possess belief in own ability to succeed and assert self when necessary.
	Self Discipline: Demonstrate self-control and behave in accordance with rules with minimal direction. Adaptability: Manage transitions and adjust to changing situations and responsibilities.	Independence: Successfully carry out expectations with minimal supervision. Integrity: Act in a trustworthy and honest manner.	Perseverance: Demonstrate endurance, and capacity to complete tasks. Time Management: Plan and organize long and short-term goals while understanding how to balance school, home, and community activities.	Professionalism: Demonstrate skills and behaviors appropriate for school and work environments.
	Effective Communication: Apply skills to clearly, effectively, and convincingly express ideas and messages to others appropriate to the environment.	Aptitude Awarenes: Identify and communicate individual interests and skills that align related coursework and experiences to potential career paths and to in-demand occupations. Initiative: Apply self-motivation and self-direction to work and learning.	Decision-Making: Utilize critical thinking skills and perspectives of others to make informed decisions based on options, rewards, risks, limits, and goals. Attention to Detail: Achieve thoroughness and accuracy when accomplishing a task.	Problem Solving: Apply critical and creative thinking skills to resolve problems.
	Regulation: Recognize and manage one's emotions.	Connection: Demonstrate the ability to network with others through social awareness and cultural sensitivity.	Collaboration: Work well with others in a team.	TMMI Culture Training

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4T Academy/ Princeton H.S. Campus







4T Manufacturing Academy Toyota Training Plan

Sophomore

Freshman

Year 1 Core Courses (4x per year for 2.5 hours)	Year 2 Core Courses (4x per year for 2.5 hours)	Year 3 Core Courses (1x per week for 2.5 hours)	Year 4 Core Courses (1stemester: 2x per/wk for 2.5 hours) (2nd semester: 4x per/wk for 2.5hours)
Toyota Way	STW part1	A-HA	Required Fundamental Skills for assigned area
Toyota History	Professionalism	TPS	OJT (lineside training 1st semester)
Safety/ Hazards Training	5s Culture	STW Part 2/Tanagram	Problem Solving Activity
	TPS-intro	QC 8 steps	Production Work (2nd semester)
	QC Intro	Tool Training	

Junior

Senior

TOYOTA





Toyota Plant Tours



Toyota Culture Training



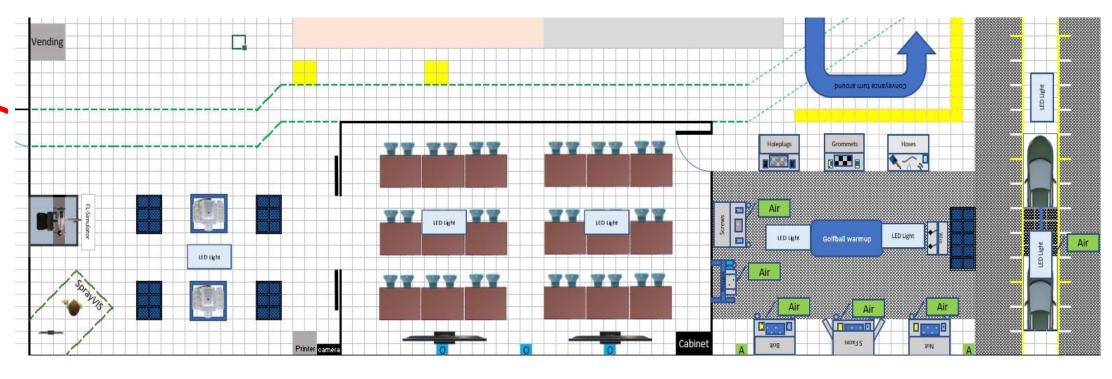
Toyota Core Training

HANDS-ON LEARNING



Paid Internship

ayor Toyota Area





4T Academy/ Toyota Campus



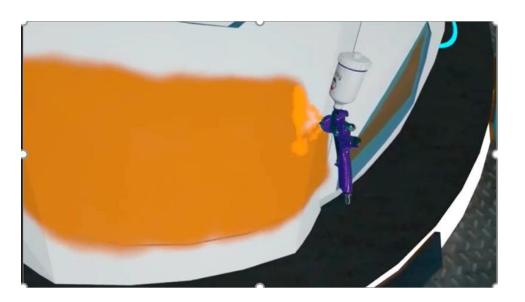




Virtual training/ Augmented Realit



Augmented Reality





Virtual Reality

Tool Training

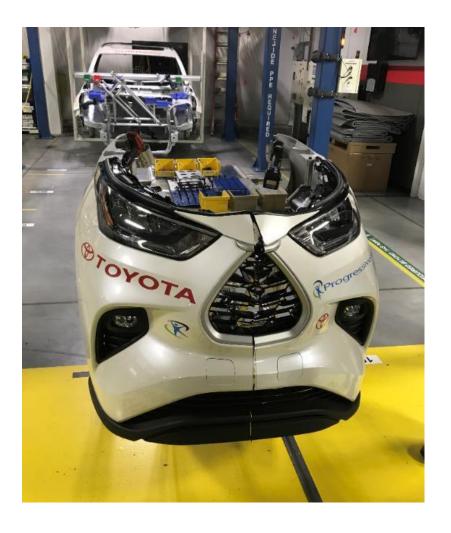








Moving Line/ Trainer







Challenges and Barriers

- 3 School Corporations
 - Varied academic courses/teachers to teach prerequisite courses
 - Streamlining the money and equipment
 - Culture and territory
 - Autonomy
- Where to house the academy
 - Equipment, costs, teach
- Alignment of schedules
 - School to school
 - Transportation
 - 4T Academy with TMMI onsite training







Key Performance Indicators (KPI'S)

- Placement after high school
- Enrollment into program vs. completion of program
- Retention within the program and when manufacturing partners direct hire
- Percent hired by manufacturing partners
- Promotion rate
- Diversity of program including enrollment, completion, direct hire placement, and promotion





Sustainability

- Equipment is a one time cost; TMMI and schools will pay for maintenance
- Director/Instructor salaries
 - Years 1 & 2 these costs are covered by the Toyota Indiana Grant
 - Moving forward North Gibson School Corporation will cover
- College curriculum and credentials are free
- Student wages would be paid by manufacturing partners
- Advertising would be paid by manufacturing partners
- When ownership group is determined (2021), they would do the fundraising for the program
- Continuing education opportunities and career paths

Marketing Plan & Counseling Students



- Counselors are key to the success of this program, creating awareness
 - Strategic engagement females, people of color, at-risk or under privileged youth
 - Understanding the audiences: Students, Parents, and Educators
- Invite students and parents to an information session and tour the plant
- Community outreach events
- Toyota professionals visiting the schools, giving presentations, and partnering with teachers for hands-on relevant projects
- Student selection and application process
- Satellite programs and the method of expansion



4T Current Enrollment: As of August 31, 2020

	Seniors	Juniors
Gibson Southern	16	8
Wood Memorial	4	6
Princeton	<u>11</u>	10
Total Enrollment	31	24



How is this funded?

- <u>School District Tuition Transfer</u>: All school corporation's participating in the academy agree to pay transfer tuition to North Gibson School Corporation for students who attend the academy. North Gibson School Corporation will use Form 515 to bill the transfer tuition to each school corporation upon the completion of each school year.
- <u>Toyota Funding</u>: After the pathway process was complete, Toyota Indiana awarded \$1 million, over a four year period, to support equipment, training, credential cost, curriculum, etc.

Questions









