



NFPA
Education and
Technology
Foundation



2025 DONOR IMPACT REPORT

THANK YOU

Members of the National Fluid Power Association (NFPA) consistently rank the recruitment of a skilled workforce as among the most challenging issues their companies face. As a result, NFPA has identified growing the fluid power workforce as one of its primary strategic priorities. It is central to its mission of strengthening the fluid power industry. NFPA seeks to increase the number of students educated in fluid power, and to connect them to jobs in our industry.

The NFPA Education and Technology Foundation is a tax-exempt, charitable organization, affiliated with NFPA, that is dedicated to meeting this workforce development need. In our 2024-25 recognition year, 125 donors gave more than \$487,000 to support our mission.

For every dollar donated, we allocated:

- 12¢ to support the **Fluid Power Action Challenge** – an outreach program that engages middle and high school students in learning about and having fun with fluid power.
- 6¢ to support our **Fast Track High Schools** – schools that teach fluid power to high school students and serve as feeders into our Fast Track Technical Colleges.
- 9¢ to support our **Fast Track Technical Colleges** – schools with a certificate or degree program validated to teach core fluid power competencies.
- 20¢ to support our **Fluid Power Scholarships** – programs that pay tuition expenses for promising students at both technical colleges and universities.
- 12¢ to support our **Fluid Power Curriculum Grants** – a program that provides funding to create or sustain fluid power curriculum at our Power Partner Universities.
- 11¢ to support **Fluid Power Clubs** – extra-curricular clubs that engage undergraduates with fluid power technology and activities at universities around the country.
- 30¢ to support the **Fluid Power Vehicle Challenge** – a competition that challenges undergraduate students to design and build fluid powered vehicles while connecting with industry mentors and careers.

Because of your support, our programs are helping to change the talent pool available to our industry. More young people are aware of the fluid power industry. More 2-year technical college and 4-year university graduates have specific training in fluid power. More technical colleges and universities have education programs focused on fluid power. And more partnerships between these schools and our industry are increasing access to highly talented candidates.

THANK YOU VERY MUCH FOR YOUR SUPPORT!

2024-25 DONORS



PASCAL SOCIETY DONORS

The Pascal Society is our annual giving society. Pascal Society donors have committed to donating an annual amount equal to at least 50% of their NFPA dues.

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OTHER DONORS

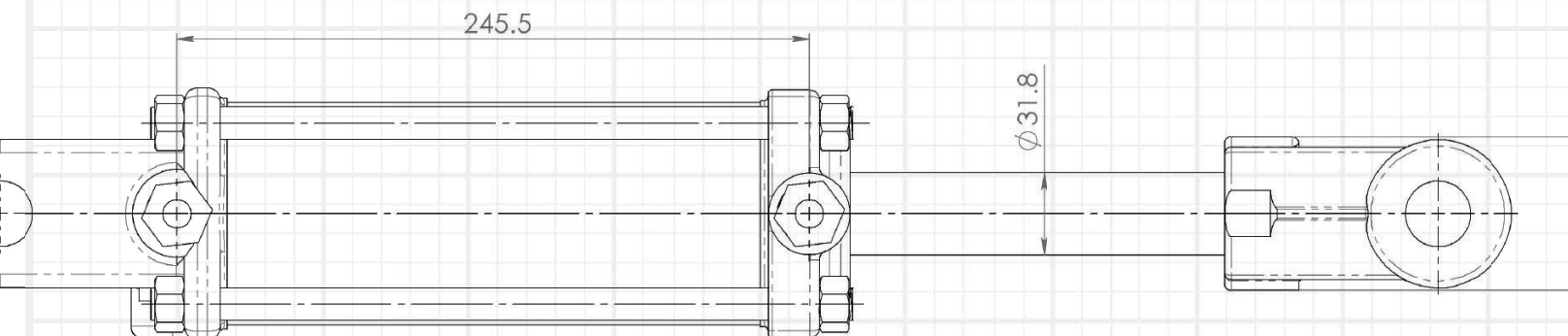
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32,000+ Middle and High School Students Engaged in Fluid Power Activities

The Fluid Power Action Challenge is a STEM-based competition that challenges middle and high school students to solve a real-life engineering problem by building a fluid power mechanism made from balsa wood and plastic syringes. The students work in teams to design and build a fluid power mechanism and then compete against other teams in a timed competition to see who can score the most points with their fluid power device.

Hundreds of individuals in NFPA member companies and education partner institutions have been involved in mentorship, classroom activities, and events related to the Fluid Power Action Challenge, which have engaged more than 32,000 students to date.



2024-25 FLUID POWER ACTION CHALLENGE CHAMPIONS

The following NFPA member companies and education partners hosted a Fluid Power Action Challenge event in their local communities this year.

- **Bucher Hydraulics – Elgin, IL**
- **Deltrol Fluid Products / Triton College – River Grove, IL**
- **FORCE America / Alexandria Technical & Community College – Alexandria, MN**
- **Peninsular Cylinder Co. / Macomb Community College – Warren, MI**
- **Price Engineering / Waukesha County Technical College – Pewaukee, WI**



2024-25 FLUID POWER ACTION CHALLENGE GRANTS

The following schools and organizations were awarded grants this year to facilitate their participation in Fluid Power Action Challenge events.

- Alliance College Ready Kory Hunter Middle School – Los Angeles, CA
- Avon Grove High School – West Grove, PA
- Bayside Middle School – Bayside, WI
- Beer Middle School – Warren, MI
- Brandon High School – Ortonville, MI
- Campbell-Tintah Public School – Campbell, MN
- Carleton Middle School – Warren, MI
- Carter Middle School – Warren, MI
- CIS Academy / Communities in Schools of Robeson County NC (Middle School) – Lumberton, NC
- Clarion-Limestone Middle School – Strattanville, PA
- Dublin High School (PFSO for H.S. Gale Force Robotics Club) – Dublin, CA
- Dundee Middle SchoolWest – Dundee, IL
- Elmwood Middle School – Bloomdale, OH
- Fergus Falls Public School – Fergus Falls, MN
- Friends of Myrtle Creek Library (Community Library) – Myrtle Creek, OR
- Green Middle School – Green, OH
- Grissom Middle School – Warren, MI
- Intermediate / Middle School - Little Chute Area School District Robotics Club – Little Chute, WI
- Katy High School – Katy, TX
- Lafayette Middle School – Uniontown, PA
- Lake Country School (Middle School) – Hartland, WI
- Lake Crystal Welcome Memorial Secondary School (LCWM Secondary) – Lake Crystal, MN
- Lake Mills Area Middle School – Lake Mills, WI
- Les Paul Middle School – Waukesha, WI
- Maine South High School – Park Ridge, IL
- Maple Dale School (Middle School) – Fox Point, WI
- Maryland Avenue Montessori School (MPS) – Milwaukee, WI
- Milford High School (Engineering Club) – Milford, MA
- Monarch High School (CO) – Louisville, CO
- New Berlin Eisenhower - Middle School – New Berlin, WI
- Osakis Public Schools - Jr. High – Osakis, MN
- Richmond School Dist. (Middle School) – Sussex, WI
- Saegertown Jr. Sr. High School (Middle School) – Saegertown, PA
- St. Gabriel Consolidated School – Glendale, OH
- St. Louis Catholic High School – Lake Charles, LA
- STEM Academy at Bartlett – Savannah, GA
- Swallow School (Middle School) – Hartland, WI
- Swanville High School – Swanville, MN
- Taylor County Middle School – Campbellsville, KY
- The Innovation School – Bismarck, ND
- ThINC College and Career Academy – LaGrange, GA
- Titusville Area School Dist. - Titusville Middle School (TMS) – Titusville, PA
- Tulsa Cornerstone Assistance Network (Community Org.) – Tulsa, OK
- Valley View Junior High – Farmersville, OH
- Watervliet Junior-Senior High School – Watervliet, NY

Fast Track

HIGH SCHOOLS & TECHNICAL COLLEGES

5 Regional Hubs of Activity Generating Career-Ready Candidates for Fluid Power

A Fast Track to Fluid Power Hub consists of a technical college with a certificate or degree program validated to teach core fluid power competencies, ringed by a number of feeder high schools that teach fluid power to and engage their students in fluid power activities and career exploration.

As of 2024-25 there are five Fast Track Hubs in this program:

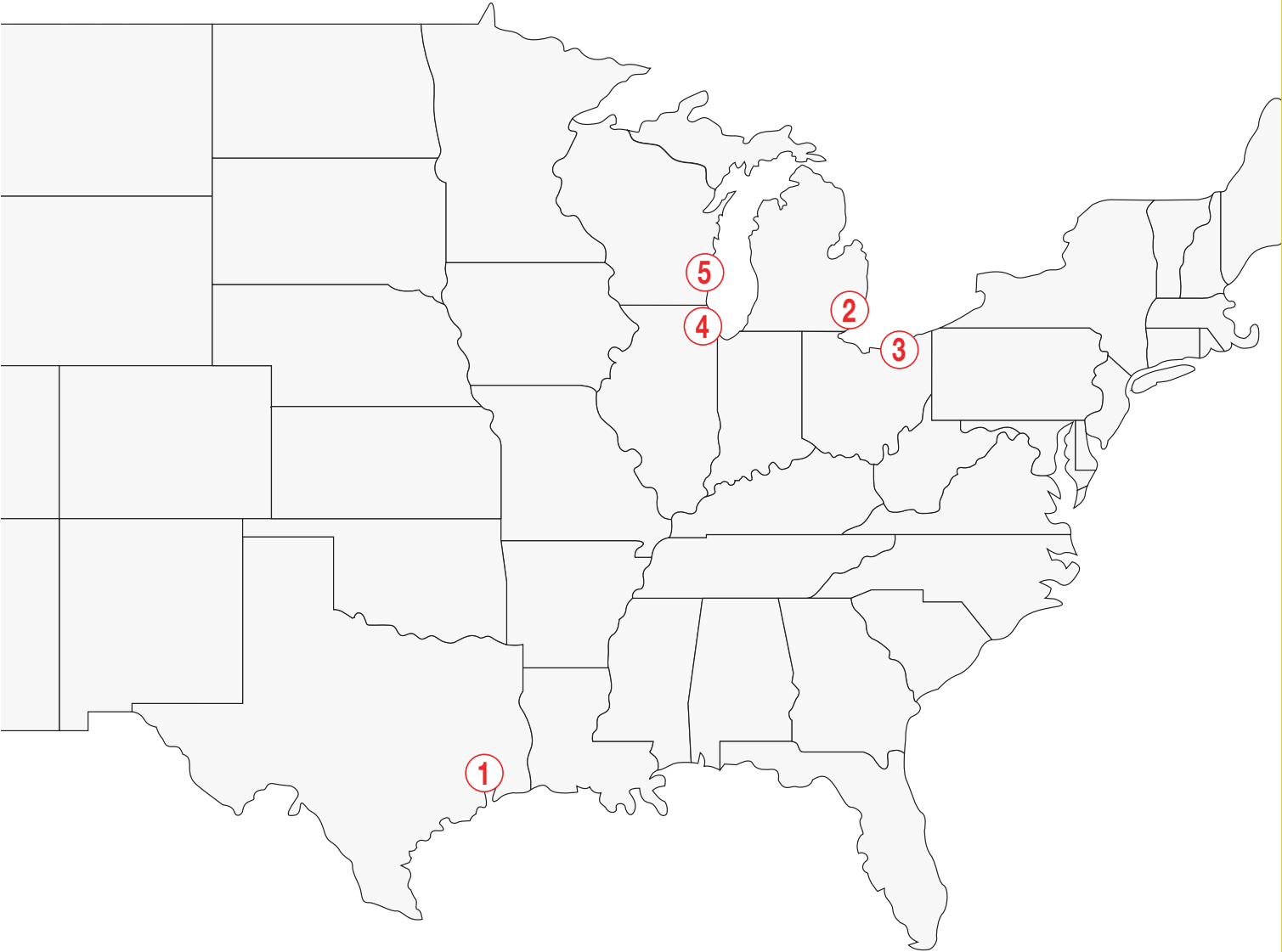
- Waukesha County Technical College, Milwaukee, WI
- Triton College, Chicago, IL
- Macomb Community College, Detroit, MI
- Tri-C Cuyahoga Community College, Cleveland, OH
- Houston Community College, Houston, TX

Each Technical College and its feeder high schools receive support from the NFPA Foundation to ensure they have the resources needed to teach fluid power to their students – and some high schools receive funding to help their students attend Fluid Power Day programming at the technical college. Moreover, many NFPA members serve on Workforce Engagement Groups in each Hub region, assisting in this development and mentoring students about fluid power careers.



IMPACT MAP

Locations of Fast Track Hubs.



- | | | | |
|---|-----------------------------|---|-------------------------------------|
| 1 | Houston Community College ▲ | 4 | Triton College ▲ |
| 2 | Macomb Community College ▲ | 5 | Waukesha County Technical College ▲ |
| 3 | Tri-C Cuyahoga College ▲ | | |

KEY: ▲ Fast Track Hubs

Fluid Power SCHOLARSHIPS

129 Scholarships Awarded to Further Fluid Power Education

Fluid Power Scholarships are offered to graduating high school students, and students enrolled in technical colleges and universities, to pursue fluid power degrees or certificates. Hundreds of individuals in NFPA member companies and education partner institutions have served as scholarship judges and reviewers, with 129 scholarships awarded to date.

2024-25 FLUID POWER SCHOLARSHIPS

The following individuals were awarded \$2,000 scholarships this year to study fluid power at these institutions.

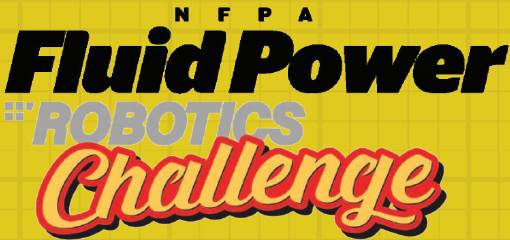
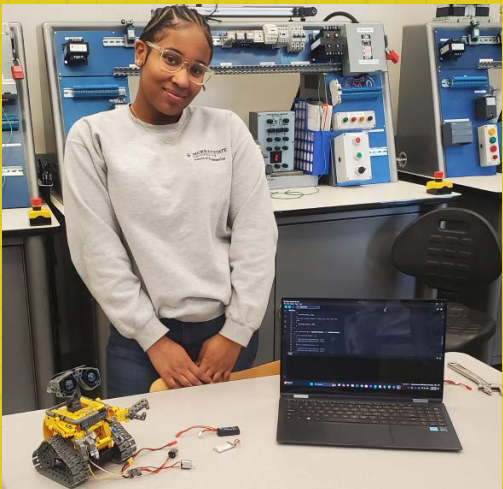
- **Adam Kaszok**, University of Illinois Urbana-Champaign
- **Ailey Smith**, University of Florida
- **Anna Aler**, University of Illinois Urbana-Champaign
- **Athena Shier**, University of South Carolina-Columbia
- **Austin Hinkley**, University of Michigan
- **Bryson Love**, South Dakota State University
- **Christian Fain**, Auburn University
- **Colin Willits**, University of Massachusetts Amherst
- **Ethan Wang**, Colorado University-Boulder
- **Evan Garner**, Ohio State University
- **James Meggitt**, Iowa State University
- **Kaden Semlow**, Cedarville University
- **Kaedyn Peterson-Rucker**, University of Wisconsin-Madison (Robert Mackey Memorial Award)
- **Kayden Brant**, Brigham Young University (Raymond F. Hanley Memorial Award)
- **Michael Castiglia**, University of Central Florida
- **Nicole Wu**, Ohlone College
- **Sarah Witte**, University of Arizona



2024-25 FLUID POWER ROBOTICS CHALLENGE

The NFPA Foundation awarded the following scholarships this year to the following past winners of the Fluid Power Robotics Challenge, a program designed to increase the amount of fluid power used in high school robotics competitions:

- **Ailey Smith**, University of Florida (\$2,000)
- **Ayush Shah**, University of Washington (\$3,000)
- **Caleb Qiu**, University of Michigan (\$10,000)
- **Colton Seitz**, University of Alabama (\$10,000)
- **Emily Bolin**, Grace College (\$2,000)
- **Gregory Powers**, Purdue University (\$3,000)
- **Evan Tan**, University of Arkansas (\$7,500)
- **Megan Tian**, Massachusetts Institute of Technology (\$7,500)



2024-25 TOM WANKE LEGACY SCHOLARSHIPS

Tom Wanke was a monumental figure in fluid power, active for more than 50 years and influencing generations of fluid power engineers through his work at the Milwaukee School of Engineering, its Fluid Power Institute, and with the National Fluid Power Association. In his honor, the Tom Wanke Legacy Fund awarded \$2,000 scholarships to the following individuals this year to study fluid power at these institutions:

- **Emily Bolin**, Grace College
- **Evan Fender**, Wright State University
- **Riley Mack**, Garden City Community College

Fluid Power

CURRICULUM GRANTS & CLUBS

Teaching and Engaging the Next Generation of Fluid Power Engineers

A Power Partner University is a 4-year school committed to teaching the next generation of fluid power engineers through a variety of offered curriculum and activities.

As of 2024-25 there are eight Power Partner Universities in this program:

- Milwaukee School of Engineering, Milwaukee, WI
- Northern Illinois University, Rockford, IL
- Iowa State University, Ames, IA
- Purdue University, West Lafayette, IN
- Murray State University, Murray, KY
- Cleveland State University, Cleveland, OH
- North Carolina A&T University, Greensboro, NC
- Tennessee State University, Nashville, TN

Through our Curriculum Grant program, each Power Partner University receives support from the NFPA Foundation to ensure they have the resources needed to teach fluid power to their students.

2024-25 TOM WANKE LEGACY CLUB AWARDS

Tom Wanke was a monumental figure in fluid power, active for more than 50 years and influencing generations of fluid power engineers through his work at the Milwaukee School of Engineering, its Fluid Power Institute, and with the National Fluid Power Association. In his honor, the Tom Wanke Legacy Fund awarded a Fluid Power Club award to:

- Northern Illinois University – DeKalb and Rockford, IL

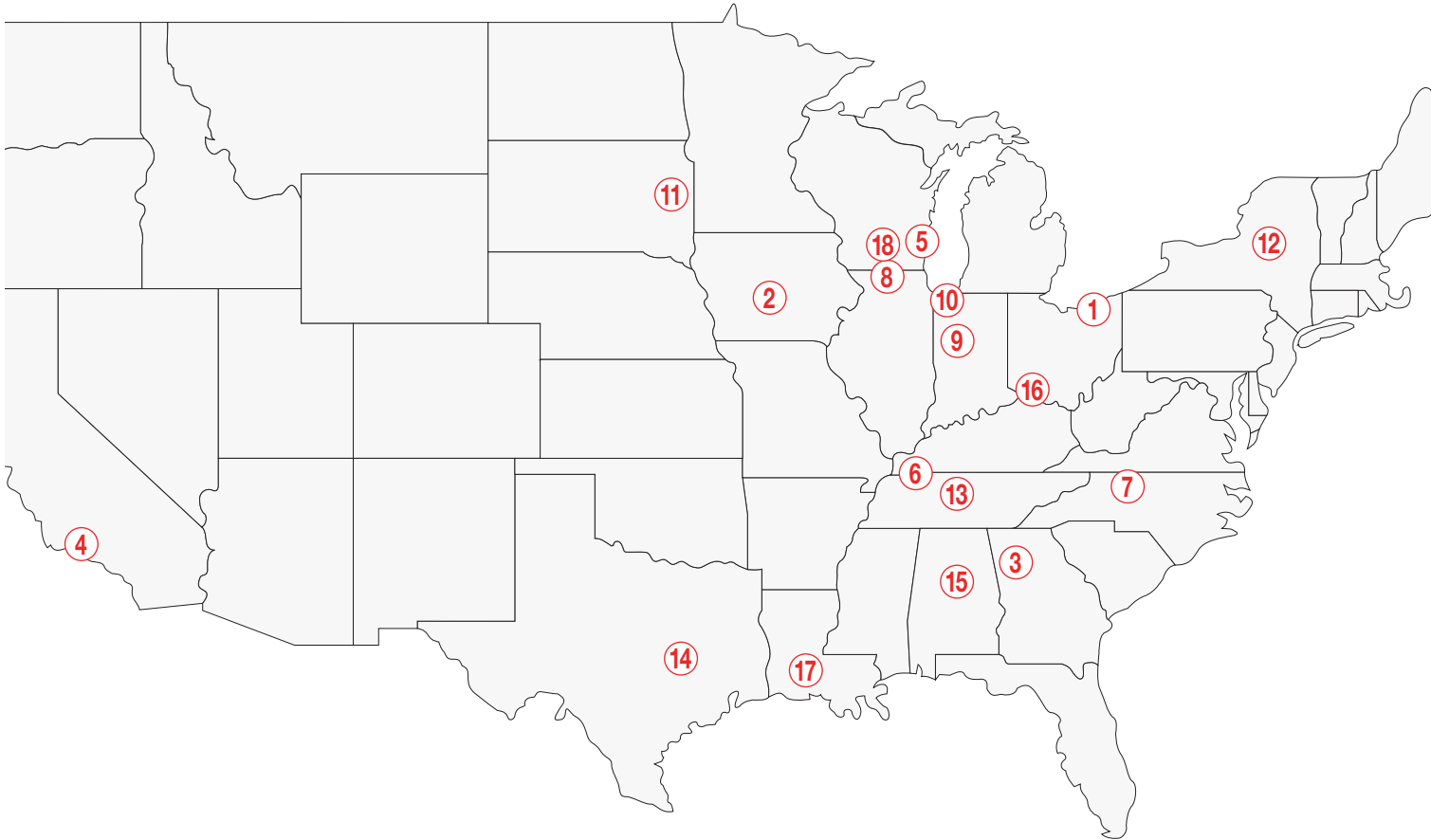
2024-25 FLUID POWER CLUBS

Our Fluid Power Club program provides funding to facilitate fluid power clubs on Power Partner and other university campuses. These clubs engage undergraduate students in fluid power technology and activities, and provide platforms for industry mentoring by NFPA members. The following schools were awarded Fluid Power Club awards this year:

- Cleveland State University – Cleveland, OH
- Iowa State University – Ames, IA
- Kennesaw State University – Kennesaw, GA
- Loyola Marymount University – Los Angeles, CA
- Milwaukee School of Engineering – Milwaukee, WI
- Murray State University – Murray, KY
- North Carolina A&T State University – Greensboro, NC
- Purdue University – West Lafayette, IN
- Purdue University Northwest – Hammond, IN
- South Dakota State University – Brookings, SD
- State University of New York Polytechnic Institute – Utica, NY
- Tennessee State University – Nashville, TN
- Texas A&M University – College Station, TX
- University of Alabama at Birmingham – Birmingham, AL
- University of Cincinnati – Cincinnati, OH
- University of Louisiana at Lafayette – Lafayette, LA
- University of Wisconsin at Madison – Madison, WI

IMPACT MAP

Locations of Fluid Power Clubs and Power Partner Universities.



- | | | | | | |
|---|-------------------------------------|----|----|--|----|
| 1 | Cleveland State University | ◆★ | 10 | Purdue University Northwest | ◆ |
| 2 | Iowa State University | ◆★ | 11 | South Dakota State University | ◆ |
| 3 | Kennesaw State University | ◆ | 12 | State University of New York Polytechnic Institute | ◆ |
| 4 | Loyola Marymount University | ◆ | 13 | Tennessee State University | ◆★ |
| 5 | Milwaukee School of Engineering | ◆★ | 14 | Texas A&M University | ◆ |
| 6 | Murray State University | ◆★ | 15 | University of Alabama at Birmingham | ◆ |
| 7 | North Carolina A&T State University | ◆★ | 16 | University of Cincinnati | ◆ |
| 8 | Northern Illinois University | ◆★ | 17 | University of Louisiana at Lafayette | ◆ |
| 9 | Purdue University | ◆★ | 18 | University of Wisconsin at Madison | ◆ |

KEY: ◆ Fluid Power Clubs | ★ Power Partner Universities

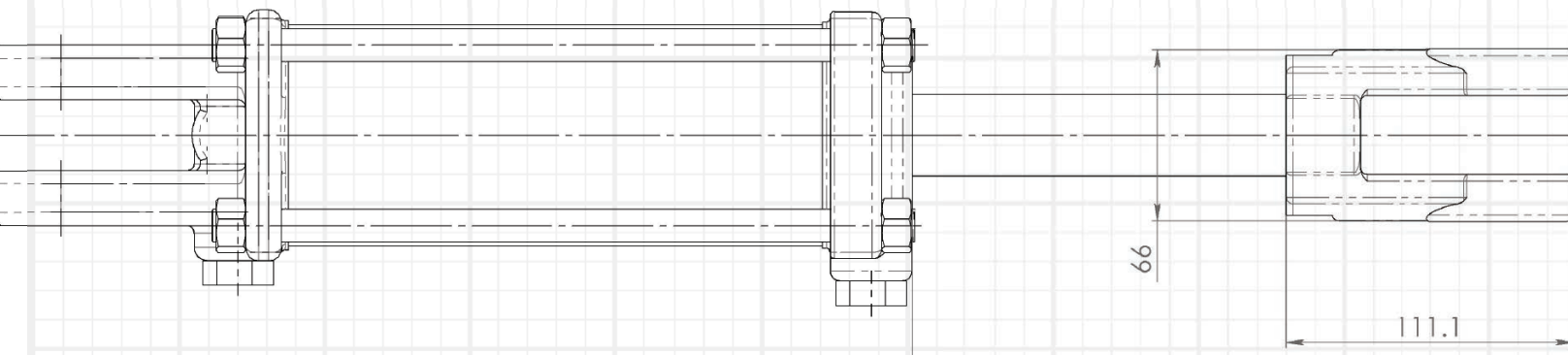


1,000+ Undergraduate Engineers Designing and Building Fluid Power Systems

The Fluid Power Vehicle Challenge is a unique design / build competition for undergraduate engineering students, where they are challenged to design and build a fluid-powered vehicle – a bicycle that relies on a fluid power circuit for its propulsion, with their legs pedaling to serve as the prime mover in that system.

2024-25 was this program’s ninth year under NFPA’s management. In its history, we have engaged and affected the career trajectory of more than 1,000 undergraduate students. This year, we had the following 26 universities participating at 3 event sites:

- | | |
|---|---|
| <ul style="list-style-type: none"> • California Polytechnic State University – San Luis Obispo, CA • Cleveland State University – Cleveland, OH • Colorado School of Mines – Golden, CO • FAMU-FSU College of Engineering – Tallahassee, FL • Iowa State University – Ames, IA • Kennesaw State University – Kennesaw, GA • Michigan Technological University – Houghton, MI • Milwaukee School of Engineering – Milwaukee, WI • Minnesota State University, Mankato – Mankato, MN • Murray State University – Murray, KY • North Carolina A&T State University – Greensboro, NC • Northern Illinois University – DeKalb and Rockford, IL • Ohio University – Athens, OH | <ul style="list-style-type: none"> • Purdue University – West Lafayette, IN • Purdue University Northwest – Hammond, IN • South Dakota State University – Brookings, SD • State University of New York Polytechnic Institute – Utica, NY • Tennessee State University – Nashville, TN • Texas A&M University – College Station, TX • University of Akron – Akron, OH • University of Alabama at Birmingham – Birmingham, AL • University of California at Irvine – Irvine, CA • University of Cincinnati – Cincinnati, OH • University of Louisiana at Lafayette – Lafayette, LA • University of Utah – Salt Lake City, UT • Western Michigan University – Kalamazoo, MI |
|---|---|



Our Vehicle Challenge brings hands-on fluid power education to university engineers. And for many of these students, the Challenge is their first real exposure to fluid power systems and components. Year-in and year-out, the Vehicle Challenge succeeds in achieving its key objectives:

- Stimulate education in practical hydraulics, pneumatics, and sustainable energy devices for motion control.
- Provide students with experience in real world engineering under a strict timeline of designing, simulating, ordering, building, testing and demonstrating their designs.
- Stimulate innovative thinking for designing and testing potential new technologies or concepts integrated into a vehicle platform.
- Provide an industry recruitment opportunity for high potential engineering seniors by engaging directly with practitioners in the field.

The program has an impressive track record of connecting those students with companies in the fluid power industry, who have hired them and helped them start careers in fluid power. Crucial support for this year’s program was provided by:

Founding Sponsor

- Parker Hannifin

Program Sponsors

- Applied Fluid Power
- IFP Motion Solutions
- IMI
- SunSource

Product Suppliers

- Brennan Industries
- Danfoss Power Solutions
- Famic Technologies, Inc.
- Helios Technologies
- HYDAC
- Lubrizol
- Source Fluid Power

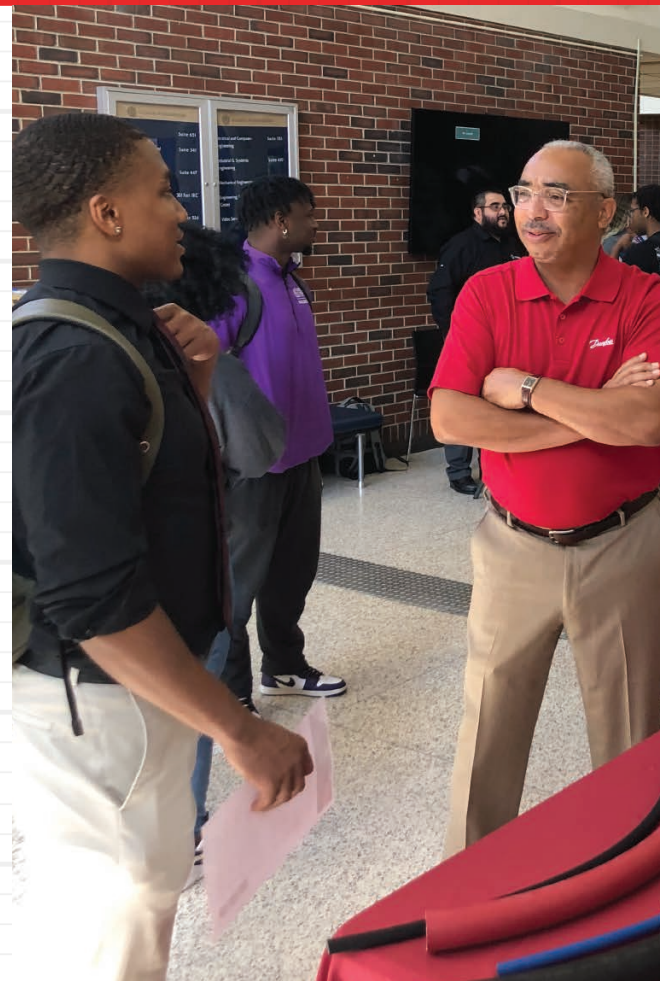
Event Hosts

- Danfoss Power Solutions
- IFP Motion Solutions
- IMI

Mentors / Judges

- Bosch Rexroth Corporation
- Bucher Hydraulics
- Danfoss Power Solutions
- DTS Fluid Power, LLC
- Enovation Controls / Helios
- GPM Controls, LLC
- HAWE Hydraulik
- HCH Bearing Americas, LLC
- HYDAC
- HydraForce
- Hydraquip
- IFP Motion Solutions, Inc.
- IMI
- JARP Industries, Inc.
- Kraft Mobile Systems
- Moseys Production Machinists, Inc.
- Motion Industries, Inc.
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