

Reaching Tomorrow's Customers: Public Power in Our Schools



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Why Invest in
Youth Education?

How to Engage

Utility Collaboration



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NPPD's Energy Education Overview

Our mission: Utilize resources, opportunities & events to bring together business, community, and education through a public power focused *culture of innovation*.



Powered by



powered by



Competitive Robotics



Powered by



12,000 Students per year
2000 Teachers per year
54 competitive robots in RURAL Nebraska
Hundreds of Classroom Visits

3 FTE - \$30,000 budget – From border to border

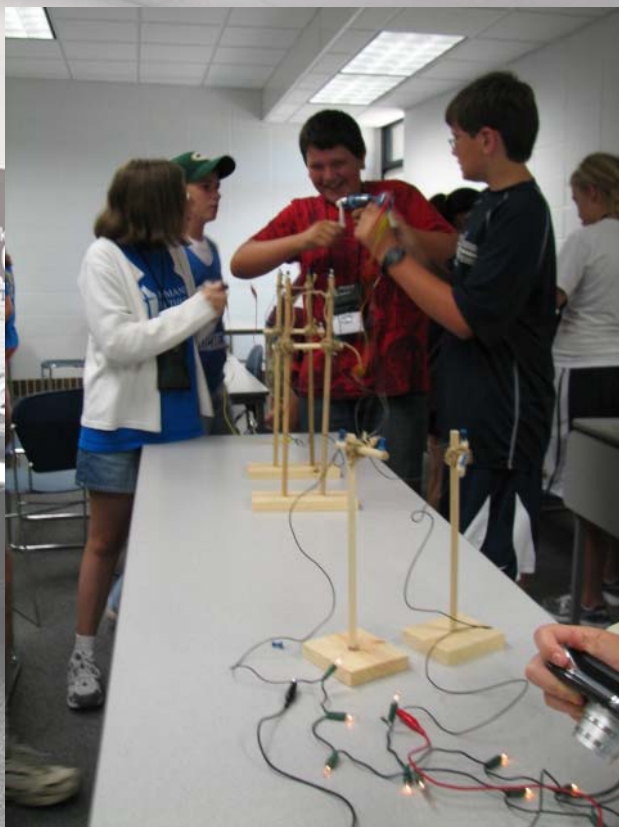
Safety Messaging

Workforce Development

Community Impact



Why Invest in Youth Education?



Safety messaging is an essential aspect of all NPPD energy education programs.

Tips for success:

1. Hands on engagement
2. Tie to educational standards
3. Connect with utility safety culture
4. The more you know the safer you will be!

Safety Messaging

Workforce Development

Community Impact



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Why Invest in Youth Education?

Workforce development includes teaching the skills necessary for technical careers.

Tips for success:

1. Use real world experiences
2. Innovation is motivation
3. Don't just be a provider of knowledge be a provider of OPPORTUNITY!

INSTRUMENT & CONTROL TECHNICIAN



SKILLS

- Cause & Effect
- Making Connections within Systems
- Questioning Attitude
- Hands-On
- Specialized Equipment
- Problem Solving

EDUCATION

Associates Degree in electronics discipline or related field and experience; (OR) Equivalent military training and experience; (OR) High School Diploma/GED and experience

QUALIFICATIONS

Licenses/Certifications Required: None

JOB DEMANDS

- Problem Solving - 67-100%
- Detailed Work - 67-100%
- Oral Communication - 67-100%
- Reading - 34-66%
- Written Communication - 34-66%

TYPICAL DUTIES

Troubleshoot and repair state-of-the-art systems including: tuning, configuration, building custom graphics and process databases, design reports, diagnose system problems, and replace/restore faulty modules on the local and universal control network. Calibrate and verify the proper settings of various process control instrumentation, such as transmitters, meters, controllers, gauges, indicators, analyzers, etc. Maintain equipment history on instrumentation and control systems. Operate various types of pneumatic, hydraulic, and electronic test equipment such as oscilloscopes, frequency counters, prom programmers, calibrators, and function generators, etc.



SALARY RANGE

\$58,000 - \$94,000

<http://pathways.nppd.com>
P2050

PATHWAYS
TO A TECHNICAL FUTURE



Safety Messaging

Workforce Development

Community Impact

Why Invest in Youth Education?



Engaging youth is a great way to engage your communities.

Tips for success:

1. Robotics is an easy connection
2. Youth engagement helps you tell your positive stories
3. Connect Business, Community & Education for great results

Safety Messaging

Workforce Development

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How to Engage!

The screenshot displays the 'PATHWAYS TO A TECHNICAL EDUCATION' website, powered by Nebraska Public Power District. The page is titled 'Electricity 101' and features a navigation menu with categories: FOUNDATION, ANALOG, DIGITAL, LOGIC, DATA, and INNOVATION. The main content area lists several resources:

- Transmission and Distribution:** A general introduction to how electricity works.
- Basics of Electricity:** A good morning introduction to 'electricity'.
- Electrical Safety Video:** A video discussing electrical safety.
- Conductor Analyzing Circuit:** A challenge to build a circuit that determines if an object is an insulator or a conductor.
- Conductor Circuit:** A challenge to build a circuit diagram for an insulator/conductor testing unit.
- Closer Look: Grid:** An interactive PDF showing how electricity gets from a power plant to your home.
- Circuit Diagram Challenge:** A challenge to reproduce a circuit from a technical diagram.
- Measuring Electricity:** A challenge to look at how we measure electricity using public power tools and techniques.
- Build-a-Grid Challenge:** A challenge to create a functioning electrical grid complete with Generation, Transmission, Distribution, and complex control systems.

A sidebar on the right titled 'Related Cards' lists several interactive cards with 'View Card!' buttons:

- Music to My Ears:** Can you identify different types of music? Rock, country, and pop all have different pitch and tempo that makes each style unique. Do Project #12 in...
- Build-a-Grid Challenge:** Can you create a functioning electrical grid complete with Generation, Transmission, Distribution, and complex control systems?
- Measuring Electricity:** Take a real world look at how we measure electricity using the tools and techniques of public power!
- Build a Switch:** **** Come Back ****
- WearTec Circuit Cards:** What do the holidays have to do with circuits? Greeting cards - that's right greeting cards - that's right greeting cards. Combining the technical skill of building circuits with t...

The footer includes the APPE logo and copyright information: © 2019 Nebraska Public Power District. Links for 'About', 'Recommendations', and 'Feedback' are also present.

Resources:
Assets necessary for effective operation

Tips for success:

1. Identify a local need and meet it
2. Schools like educational materials not marketing materials
3. Target multiple age groups with resources key to their requirements

Resources

Opportunities

Events



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How to Engage!



Opportunities:

A set of circumstances that makes it possible to accomplish something.

Tips for success:

1. Identify a local need and meet it
2. Schools like educational materials not marketing materials
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Resources

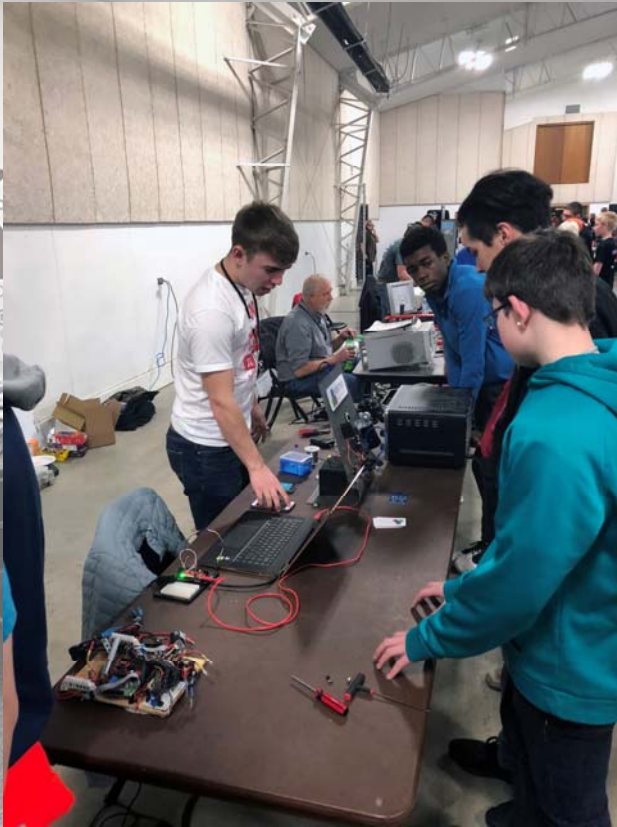
Opportunities

Events



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How to Engage!



Events:

A thing that happens, especially one of importance

Tips for success:

1. Don't do your own event if you can simply help make someone else's event better
2. Events are essential in developing the culture of innovation

Resources

Opportunities

Events



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Time for Collaboration

Tips for success:

1. Take advantage of the APPA's opportunities including DEED grants
2. Gather resources that are designed to be shared – and create resources you can share
3. Join NPPD as a partner in the APPA funded Pathways to a Technical Future program!

As a band of public power utilities, together we can make an impact on consumer safety, our future workforce, and our communities!



APPA DEED

Open Source Learning

Branded Pathways



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