



Virtual Reality Electrical Training

What is JA Trades?

- Junior Achievement of Greater St. Louis offers a program called JA Trades, designed to introduce middle and high school students to careers in the trades. This hands-on program emphasizes the value of STEM skills and provides real-world experiences across a variety of trade professions.
- Students rotate through different stations to gain practical insight into careers such as welders, electricians, carpenters, and more.
- Volunteers play a vital role in the success of this program. We appreciate your support and hope your experience is both rewarding and memorable.

Why teach Trades?

- High Demand: Skilled workers are needed more than ever as many retire.
- Career Path: Trades offer a solid, well-paying alternative to college.
- Hands-On Learning: Ideal for students who prefer practical, real-world skills.
- Strong Earnings: Many trade jobs offer great pay and benefits.
- Essential Roles: Trades are critical to keeping our communities running.

Volunteer Role

- Students will rotate through several trade stations to gain first-hand experience with different skilled careers. Your role is to lead a VR simulation that shows students what it is like to be an aerial lineworker. You'll guide them through the virtual experience.



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What is VR



Virtual Reality (VR) is a type of technology that makes you feel like you're inside a completely different world, even though you're still in your real one.

You wear special goggles or a headset that covers your eyes, and the headset has screens inside. These screens show 3D images or videos. When you move your head, the images move too, making you feel like you're really there.



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Training

- High School Diploma or GED
- Technical Courses
- Lineworker training program
- Apprenticeship-classroom and hands-on preparation
- Aerial lineworker specific training
- Safety and Risk Management
- Certification Certificates



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Industries that use Aerial Lineworkers

- Electricity & Power
- Telecommunications
- Construction and Infrastructure
- Government and Municipal Utilities
- Disaster Response and Emergency Services
- Renewable Energy - Wind & Solar Farms

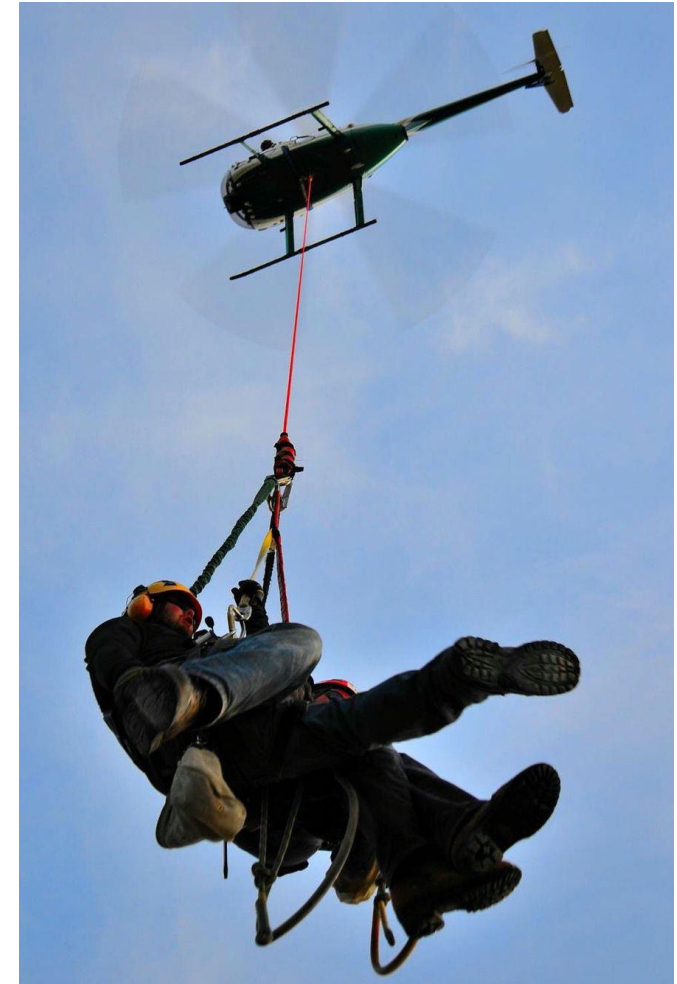


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Student Activity

- Students will view an aerial lineman maintaining and repairing high-voltage transmission lines, like those for transformers and power lines. These are very specialized roles, and they require additional training beyond general aircraft mechanics. Essentially, you're combining aviation skills with utility line work.



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Viewing the Simulation

While viewing the virtual simulation, student will watch for six letters scattered throughout the video which will spell the word **SAFETY**. They will also look for different safety equipment (hard hat, harness, vest.....)



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Simulation Activity Instructions

VR Linesperson Experience

Volunteer Setup and General Info Updated 7/30/25

Keep headsets plugged in to charger until ready for first group. Each headset should be set to work within the "boundaries" set up prior to student arrival. Each headset is numbered and needs to stay at the table location matching the number (mark new tables numbers if you have to replace a headset). Students need to stay seated throughout the experience but can swivel in the chairs. Students should not put the headsets on until you have given instructions to do so. When not in use headsets should be face down on the table with the straps to the side (unit will think it still being worn and continuously play if straps are over lenses). Make sure lpads are also ready in case students cannot use the headsets.

(You will have up to 5 students for 10 minutes, at the 10-minute mark, exchange with the electrician group)

Volunteer Script

Tell students:

- Virtual reality (VR) is an immersive experience that can be intense.
- If at any time you have feelings of light-headedness, dizziness or nausea please remove headset. We have lpads that you may use to view the same experience.
- If you are wearing glasses, they headset may work better without them on.
 - You are about to experience working as a linesman working on some of the tallest power lines in Missouri. In the video he is installing glass cylinders to insulate the power line.
 - While you're up there, you can look around by simply turning your head, look up down, you can circle around in the chair too, stay in your seat the entire time.
 - Keep your eyes open for (6) letters scattered throughout the video. Like this: "A".
 - Call out the letters when you see them. Ask them if they can guess what word they are unscrambling (spells SAFETY)
 - Also be on the lookout for safety equipment, see how many of these you can remember! (listed below)
 - You may now put on your headsets. The video is around 6 minutes, it may already be playing and will loop to start again. You only need to watch the entire loop once. There is a dark screen for a few seconds between the start and end so give it time to start up.

Reminder: Each spot at the table is labeled with a number that corresponds to the head set on their place. Leaving that area will disrupt the boundary and the experience will not work when they are out of the boundary, (it will show gray).

Safety Gear in video, ask why they think each are needed:

- Hard Hat

- You will receive a handout with detailed instructions upon your arrival to JA Trades. JA staff will check in to ensure you are comfortable with the task at hand and answer any questions you may have.



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THANK YOU!

**We look forward
to seeing you at
JA Trades!**

Enjoy the Day!



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