



Bringing AR to Small Business Employee Training

What are we doing?

[Jobs for the Future \(JFF\)](#) is working with [Facebook Reality Labs](#) and [Augmentir](#), an augmented reality (AR) technology provider, to explore the potential of using AR for small business employee training. Augmented reality solutions have been found to reduce technician training time by 80% and assembly time by 20%. We believe that over time AR will bring the cost of training down, open up new market opportunities and increase competitiveness for small businesses. Emerging technologies, like augmented reality, also have the potential to increase employee skill building and boost employee confidence, which lead to greater employee effectiveness and satisfaction. This spring 2021, we will be conducting a pilot study and training employees in Advanced Manufacturing businesses using AR to learn more about the needs, opportunities and challenges that exist for AR in small businesses and take some first steps in transforming the small business training market.

We are currently recruiting businesses for this pilot through the JFF small business partner network. We appreciate any connections, insights and feedback you can provide.

What is Augmented Reality (AR)?

Augmented reality is a technology that presents digital information, such as data and images, on top of what we see around us (reality) using a device like a smartphone, tablet, or smart glasses. Common applications for augmented reality in advanced manufacturing include:

- **Remote assistance or “see what I see”** - allowing a frontline worker to contact an expert and show photos or video of a situation with machinery or other elements of the work environment, allowing the expert to diagnose issues or recommend fixes without needing to be on site
- **Digital work instructions** - replacing paper or laptop-based instructions for complex assembly or repair with step by step digital instructions, often digitally mapped onto the real object in the physical environment, so the worker clearly sees what step to take next without having to take time consulting a resource

This makes learning new skills and procedures easier and retention higher, because workers are seeing instruction within their work environment as they go through work tasks, not remembering it from a book or a classroom.

AR training solutions are best suited for employees who have some training under their belts and desire to increase their efficiency and effectiveness in key tasks.



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For examples of AR technology, see:

- **Augmentir demo of remote assistance:**
<https://www.youtube.com/watch?v=mJWTmhVejQM>
- **Upskill/Boeing demo of digital work instructions using smart glasses:**
<https://www.youtube.com/watch?v=qTbIKJjTadQ>
- **Librestream demo showing a variety of hardware use cases:**
<https://www.youtube.com/watch?v=y0jyIDw0RFQ>

Why should your organization participate?

[Jobs for the Future](#) is a 38 year old national non-profit that promotes socio-economic mobility in education, policy and the workforce. As part of our mission, we develop programs that support the well-being of American workers. Your participation will help introduce AR to small businesses, ensure their perspective is understood in the technology's development and give the businesses you work with an edge in what is to be the next big technological advancement to transform business and society.

What type of training will be provided?

We will be providing either a remote assistance solution or a digital instructions solution or a combination of both, depending on the needs and interests of the small businesses we speak to.

What businesses are a good fit?

- Advanced manufacturing and/or high growth manufacturing businesses with a need for or interest in solutions to increase the skills and efficiency of their frontline workforce, such as through making standard operating procedures easier to use or through making expert help more accessible
- Small businesses with up to 500 employees, ideally, with a baseline level of digital literacy / familiarity with smart phones and/or tablets; ideally, these devices are already used in the flow of work
- Has approximately 10 or more employees who can and would use an AR solution regularly throughout a typical working week
- Open to and/or experienced with adopting new technologies
- Able to allocate one "champion" in the business to be the main contact and advocate for the pilot within the business
- Stable, high speed internet, where several users can simultaneously use a single or multiple connections
- Believe that employee success and retention are at the center of business growth



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What the participating businesses can expect?

- The pilot will start in spring 2021 and end in summer 2021
- The training is being provided at no cost to the businesses
- The training will be provided through a smartphone/tablet
- JFF and the training provider will provide:
 - Orientation to pilot businesses
 - Support in promoting this opportunity to employees
 - Support for employees and business leaders in creating accounts and using training solutions, including a single “help desk” point of contact
 - Progress tracking and documentation of insights
- Participating businesses will be asked to:
 - Provide a single point of contact for pilot management
 - Attend regular check-ins to help JFF gather feedback
 - Help trainees familiarize themselves with training opportunities, create training accounts with training partners, and complete training
 - Help trainees and managers complete a feedback survey at the beginning, middle and end of the pilot
 - Participate in up to two short interviews and feedback sessions

What should you do next?

- 1) Review your list of Advanced Manufacturing businesses and determine which businesses meet the above requirements.
- 2) Let JFF know how many businesses you will be reaching out to and any other feedback you want to share, including possible challenges.
- 3) Let JFF know if we can provide any support in initial conversations and back and forths with the businesses.
- 4) Reach out to potential candidates to see if they are interested and send them an email introducing the pilot with the Business Pilot Overview attached.
- 5) Connect JFF directly to any businesses who are interested in participating by sending an introduction email to Jordan Lin at jlin@jff.org.