

IOWA MANUFACTURERS FIND IMMEDIATE VALUE IN WEARABLE
TECH

ABOUT AMERICAN POP CORN CO. The American Pop Corn Company, makers of Jolly Time Pop Corn, was founded in 1914. The family-owned manufacturer employs 177 people.

THE CHALLENGE. It started as a single question in a loud, pandemic-influenced Sioux City popcorn factory: How do we meet our obligation to monitor employee hearing if COVID-19 social distancing requirements are blocking us from running hearing tests in the usual way? The answer, which American Pop Corn Company discovered with help from CIRAS, part of the MEP National Network™, involves new workplace safety technology from a groundbreaking Iowa company.

MEP CENTER'S ROLE. MakuSafe, based in West Des Moines, makes wearable devices with sensors that can monitor the conditions on a factory floor. The devices record a variety of data about environmental concerns such as air quality, noise exposure, or the presence of high heat as well as potential harmful human motion like slips and trips. CIRAS helped the company understand MakuSafe as part of the efforts through its Digital Manufacturing Lab to help familiarize manufacturers with Industry 4.0 technology. Safety Manager Zoe Knudsen said American Pop Corn is using the devices to monitor decibel levels in two areas containing a total of 19 microwave popcorn production lines. The goal, in an environment where COVID-19 quarantines have sparked higher demand and ramped up popcorn production, is to be certain that factory noise never overwhelms the hearing protection that workers have been supplied.

"It's working really well. We've come up with a way to harness all the information that we're getting from the devices . . . and it's also made us more aware of the hotspots in our production areas, places where we maybe need to put some more slip protection on the ground."

-Zoe Knudsen, Safety Manager

RESULTS



Over **\$35,000** in cost savings per year



Safety improvements

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