



## Solving Problems in their Community

**Canadian Valley Technical Center**  
**El Reno, Okla.**

Wearable device to measure hip-to-waist ratio

**Casa Grande Union High School**  
**Casa Grande, Ariz.**

Automated wildfire prevention system

**Elizabethtown High School**  
**Elizabethtown, Ky.**

Confined space personal safety monitor

**Granada Hills Charter High School**  
**Granada Hills, Calif.**

Electromagnetic locking system for trash cans

**National Ford High School**  
**Fort Hill, S.C.**

Nutrient injection system for hydroponic gardens

**The ASK Academy**  
**Rio Rancho, N.M.**

Wearable device for first responders to collect and transmit vitals

## Solving Problems for Family Members/Classmates

**McKay High School**  
**Salem, Ore.**

Adaptive cup for people with dysphagia

**Manasquan High School**  
**Manasquan, N.J.**

Vital sign monitoring for firefighters

**Marshfield High School**  
**Marshfield, Mass.**

Bandsaw safety device

**Rolling Robots Outreach**  
**Rolling Hills Estates, Calif.**

Device to monitor sleeping conditions and habits

## Solving Problems for Community Connections

**Davenport West High School**  
**Davenport, Iowa**

Water filter for Muamba, Kenya

**Lincoln County High School**  
**Hamlin, W.Va.**

Automated covered hoop-house monitoring and management system

**Logan High School**  
**La Crosse, Wis.**

Energy management system for prosthetic limb

**Richland Two Institute for Innovation**  
**Columbia, S.C.**

Combined biodigester and solar power system for Sare Bilaly, Senegal

**Valley STEM + ME2 Academy**  
**Canfield, Ohio**

Danger alert system for schools