



U.S. DEPARTMENT OF ENERGY

American-Made E-ROBOT Prize

GUIDELINES FOR CONNECTOR RECOGNITION AWARDS

1. INTRODUCTION

The Department of Energy's Building Technologies Office (BTO) is launching the American-Made Envelope Retrofit Opportunities for Building Optimization Technologies (E-ROBOT) Prize as a two-phased contest program. The overarching goal of E-ROBOT is to catalyze the development of minimally invasive, low-cost, and holistic building envelope retrofit solutions that make retrofits easier, faster, and more accessible for workers. The E-ROBOT Prize calls upon innovators to utilize robotics to develop building envelope retrofit technologies that meet the following criteria:

- **Holistic:** The solution must include mapping, retrofit, sensing and inspection.
 - **Low cost:** The solution should reduce costs significantly when compared to current state-of-the-art solutions. The target for reduction in costs should be based on a 50% reduction from the baseline costs of a fully implemented solution (not just hardware, software, or labor; the complete fully implemented solution must be considered). If costs are not at the 50% level, there should be a significant efficiency gain achieved.
 - **Minimally invasive:** The solution must not require building occupants to vacate the premises or require envelope teardown or significant envelope damage.
 - **Utilizes long-lasting materials:** Retrofit is done with safe, nonhazardous, and durable (30+ year lifespan) materials.
 - **Completes time-efficient, high-quality installations:** The results of the retrofit must meet common industry quality standards and be completed in a reasonable timeframe.
- Provides opportunities to workers:** The solution enables a net positive gain in terms of the workforce by bringing high tech jobs to the industry, improving worker safety, enabling workers to be more efficient with their time, improving envelope accessibility for workers, and/or opening up new business opportunities or markets.

The contest provides a total of \$5 million in cash prizes and support to competing teams and American-Made Network partners. Through this prize, DOE will stimulate technological innovation, reduce building retrofit costs, create a faster retrofit process, ensure consistent, high-quality installations, and improve overall energy savings of the built environment.

This prize strives to engage the American-Made Network to assist teams with their solutions. As such, Connectors who are helpful to both winning and non-winning teams may be eligible to win cash recognition awards for helping to mentor teams.

Connectors

Connectors are the core component of the American-Made Network and are organizations that seek to support the efforts of competitors in the E-ROBOT Prize. Connectors must be U.S.-based organizations (not individuals) that have the capacity to connect competitors to

mentoring, business resources, manufacturing, testing, and validation resources, or introduce them to possible sources of funding. Connectors that are successful in helping competitors (both winning and non-winning teams) can earn Recognition Awards. BTO recognizes that helping teams compete in a solutions-oriented prize such as this requires hard work, dedication, and time commitments. This is true for those Connectors who help winning teams, but the same is true for those helping teams that don't happen to move forward in each phase of the competition. That is why the prize administrators want to recognize all Connectors who have put forth significant effort to help teams in this prize competition.

Connectors can be incubators, universities, think tanks, prototyping, testing, or validation facilities, as well as industry groups or any U.S.-based organization that provides support activities such as:

- Helping competitors refine their innovations, develop business plans, work with mentors, and connect them with investors and industry partners
- Assisting competitors in the preparation of their submission packages
- Raising non-federal funding to support this program and its participants
- Providing in-kind resources, tools, and facilities to accelerate competitors' abilities to innovate, test, validate, and refine their solutions while reducing technology and business risks
- Connecting competitors to regional development, prototyping, validation, testing or manufacturing tools, facilities, and expertise.

Connectors who support competitors in either of the E-ROBOT Prize phases may be eligible to earn payments. Entities interested in participating as a Connector can visit the following site to sign up and apply: <https://americanmadechallenges.org/connect.html>.

Power Connectors

Power Connectors are not eligible for recognition awards. Power Connectors are a subset of Connectors that play a more substantial role in the competition and receive funds to expand and amplify BTO and NREL's efforts. Power Connectors operate under a subcontract with NREL. Not only do these organizations work to identify talent and support participants in the phases of competition, they also partner with NREL to envision and execute a long-term sustainable strategy for scaling the American-Made Challenges. Power Connectors are

ineligible for all recognition awards. Power Connector contracts may include the following tasks:

- Increasing the number of new, high-quality competitors
- Matching team needs with industry resources and experts
- Expanding the network of partners, resources, and tools
- Increasing the diversity of funding sources
- Hosting well-attended teaming event(s)
- Producing engaging and well-attended national demo day showcases
- Repeated support of contests with an increasingly robust American-Made Network and expanded funding from non-governmental sources.

Entities interested in participating as Power Connectors can visit the following site for details: <https://americanmadechallenges.org/network.html>

Connector Recognition Award Opportunities:

- **Recruitment Event Awards:** Approved Connectors can host recruitment events, either virtually (or in person when possible) in order to promote the prize and help recruit new teams and/or competitors. These Connectors may be eligible for a recognition award of \$1,000 per event that they hold during Phase 1 of the contest. In order to receive the prize, each Connector must be an approved Connector in the American-Made Network. DOE and the prize team must receive an invite to the event (and be informed about the event logistics) prior to holding the event. The Connector must agree to allow DOE to speak at the event or play a pre-recorded video about the Prize and the event must produce at least 30 participants who are likely to compete in Phase 1 of this prize. Prizes are paid on a first-come, first-served basis until the prize pool of \$25,000 is exhausted. To get pre-approval for a recruitment award, please email ERobot.Prize@nrel.gov .
- **Mentorship Awards:** The E-ROBOT Prize is offering Connectors an opportunity to be rewarded for excellent mentorship and support provided to teams. For both phases, Connectors who help winning and non-winning teams, and who are listed in the team submission form on HeroX, will be rewarded with a recognition award. Awards will be provided to those helping winning and non-winning teams. Each competing team must list the Connector in the submission form on HeroX in order for the Connector to be considered for a recognition award. **Teams can only list one Connector to receive an award.** Teams should only list a Connector who has most significantly helped the team. If no Connector has significantly helped a team, it is not a requirement to list a Connector in the submission form. The Connector must be an approved Network Connector by submission day and the team must enter the Connector organization in

the HeroX form at the time of the submission. Each phase of the competition will have a mentorship award prize pool of \$350,000.

- **Phase 1 (\$350,000 prize pool):** Awards will be up to \$10,000 for Connectors who help winning teams and up to \$5,000 for Connectors who help non-winning teams (the total number of awards will be dependent on the number of submissions that list a Connector). DOE reserves the right to reevaluate the number of awards in the event that there are more than 50 Connectors listed by teams that did not advance to Phase 2.
- **Phase 2 (\$350,000 prize pool):** Awards will be up to \$50,000 for Connectors who help winning teams and up to \$25,000 for Connectors who help non-winning teams (a total of up to 10 awards).

Recognition awards are designed to incentivize Connectors to engage in mentoring and support activities for competitors, such as:

- Attracting a diverse range of talented individuals to join competing teams. This includes bringing new experts with diverse expertise, robotics experts, and other non-buildings experts into the prize and connecting them with competing teams.
- Helping competitors refine their innovations, develop business plans, and connect with investors and industry partners.
- Connecting teams to other teams and resources that can expand their capabilities and lead to a strong holistic solution.
- Raising non-federal funding to support this prize program and its participants.
- Providing in-kind resources, tools, and facilities to accelerate competitors' abilities to innovate, test, validate, and refine their solutions while reducing technology and business risks.
- Connecting competitors to regional prototyping and manufacturing expertise, facilities, and experts.

PHASE 1 RECOGNITION AWARDS			
Award Name	Prize Pool	Number of Awards	Details

Connector Recruitment Event	\$25,000	Up to 25; at \$1,000 each	Payment of \$1,000 per event that includes a minimum of 30 attendees likely to participate in this prize. Must be registered as a Connector before the event takes place. Payments made on a first-come, first-serve basis.
Team Support to Winning Teams	\$100,000	Up to 10; at \$10,000 each	Each winning team may list one Connector to receive an award. Must be registered as a Connector before Phase 1 closes to receive an award.
Team Support to Non-Winning Teams	\$250,000	Split evenly; up to \$5,000 per submission*	This award goes to Connectors who helped teams that submit eligible applications but did not win. Each team may list one Connector to receive an award. Must be registered as a Connector before Phase 1 closes to receive an award.

*DOE and the Prize Administrator will re-evaluate the number of awards in the event there are more than 50 Connectors listed by teams that did not advance to Phase 2.

PHASE 2 CONNECTOR AWARDS			
Award Name	Prize Pool	Number of Awards	Details
Team Support to Winning Teams	\$200,000	Up to 4; at \$50,000 each	Each winning team may list one Connector to receive an award. Must be registered as a Connector before Phase 2 closes to receive an award.
Team Support to Non-Winning Teams	\$150,000	Split evenly among Connectors submitted; up to \$25,000	This award goes to Connectors who helped the eligible applications that did not win. Each team may list one Connector to receive an award. Must be registered as a Connector before Phase 2 submission closes to receive an award.

Competitors and expert reviewers in any given phase cannot also be a Connector for that round. If a Connector formally joins a team, they forego any financial incentive and recognition payment for that phase. Entities interested in participating as Connectors can visit the following site for details: <https://americanmadechallenges.org/network.html>