

## American-Made Challenges E-ROBOT Prize Competition

### *Fresh Air*

#### **Description:**

Semi-automated, concrete cutter with 3-stage HEPA silica dust collection robot to safely, accurately, and quickly cut concrete and other hardscapes. The direct relation of this technology optimization to building envelope retrofits is to gain access to slabs and basements requiring repair, waterproofing, and insulation. Addressing moisture via access and passive treatment measures at the slab and foundation should often be the first step in an envelope retrofit. Due to the proximity of hardscape concrete and asphalt to many buildings and the danger, cost, disturbance, and time required to cut and remove hardscape flatwork, this important first step is often neglected. This optimized technology aims to change that. Improved access becomes especially useful when we install helical piers and grade beams to help support the weight of retrofit panels.

