

The Insulation TeleRobot

A Teleoperated Humanoid Robot for Inspection, Installation, and Replacement of Insulation.

Retrofit Challenge:

Insulation removal and replacement carries with it hazardous materials and unfriendly workspaces. Humans must crawl into small, cramped non-climate-controlled areas to remove and install materials which are hazardous when touched or inhaled.

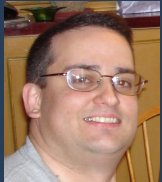


The Insulation TeleRobot

Challenge Section:

The current approach for installing insulation relies on someone to physically climb up into the attic, which can be a hot, dusty, cramped and unfriendly environment.

Our Team:



Neil
Desmond



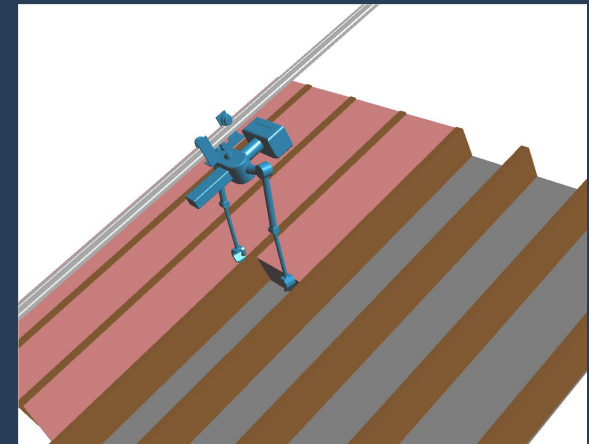
Jerry Branson



Jacob M
Berdichevsky

Our team consists of individuals who are subject matter experts in various emerging robotic technology applications with specializations in teleoperated artificial intelligence and humanoid robots.

We propose a variable autonomy teleoperated solution. This will enable the electronics, mechanics, and computation to work in concert with humans in order to accomplish the goal. Over time, automation will provide an increasing amount of system control. This initial operating capability through teleoperation allows for the creation of training sets to improve control systems using artificial intelligence.



In the above CAD drawing the robot is placing rolls of fiberglass insulation onto the floor of the attic.