

## Challenge:

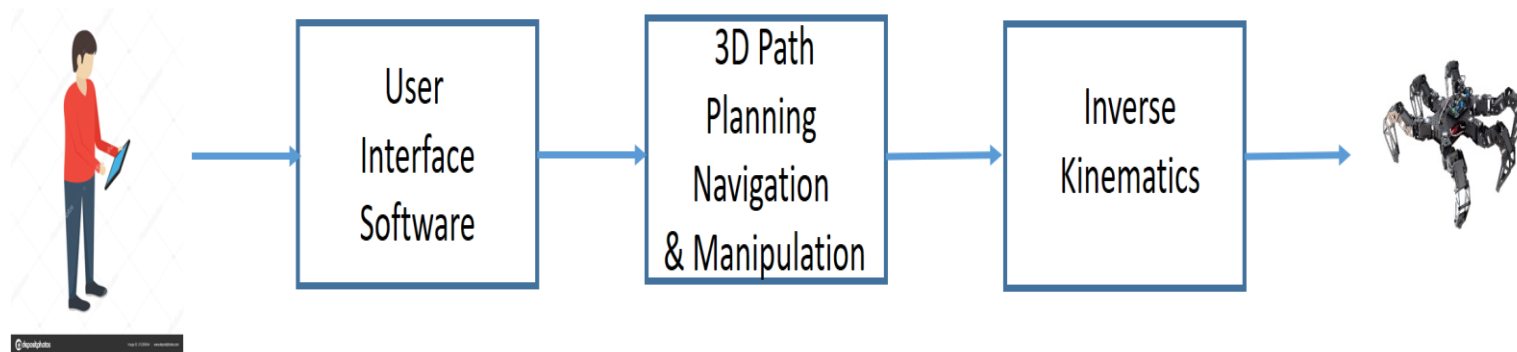
Inaccessible attic spaces in brownstones, row houses, triple deckers and other common flat roof multifamily buildings are not air sealed or insulated

## Solution:

Human in the loop robotics system to air-seal gaps and insulate using closed cell froth foams

## Team:

- Building Envelop Materials, Amesbury, MA. Developed and commercialized Pinhole Insulation®, a minimally invasive deep energy retrofit system for flat roof multifamily buildings
- Signetron Inc., Berkeley, CA; Over 20 years of experience in 3D outdoor and indoor mapping systems with transitions to Google Earth, and Hilti AG; Over 10 years of experience in developing technologies for improving building energy efficiency; successfully commercialized products on 3D visual building documentation.



## Problem:

Air Sealing Tech In Flat Roof



## Solution:

Robot For Flat Roof

