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Orthorectified Thermographic Modeling and Analysis

Reckon Point proposes to integrate panoramic thermal images into the 3D point cloud output of a Light Detection and Ranging ("LiDAR") scanner to completely characterize a building's thermal performance in a single pass. By mounting this system on a mobile robot platform, the scan can be conducted quickly and reliably. We propose then to develop post-scan analysis tools which can 1) clearly visualize thermal trends in a building for human inspection, 2) automatically detect problem areas, and 3) identify potential causes. The output of our scanning and analyzing pipeline will be a useful 3D thermal map of the building as well as a list of top-priority efficiency defects which building owners and contractors can use to pinpoint in-person assessment and retrofit.

Founded in 2018 and led by CEO Gabe Garza, San Antonio, TX startup Reckon Point has over 40 years combined technical experience in private firms and with the Department of Defense. In order to complete our project, Reckon Point is partnering with Southwest Research Institute and North-American energy management partners.

We thank you for your consideration,
-The Reckon Point E-ROBOT team

TEAM MEMBERS

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COMPANY PARTNERS

RECKON POINT	**906 Buckner Dr** **San Antonio, TX 78226**	**Provide their Mobile Indoor Geolocation Survey robot and Scan-To-BIM expertise.**
SwRI SOUTHWEST RESEARCH INSTITUTE	**6220 Culebra Rd** **San Antonio, TX 78238**	**Integrate sensors, develop novel compositing and analysis software pipeline**