Approximately 40% of all US energy usage and carbon emissions are attributed to buildings. Energy audits of buildings are an effective way to identify significant energy savings, but the extensive training required by auditors and cost of the labour intensive audits result in only a small fraction of buildings receiving an audit. Automation of the audit process using robots can offer more detailed information for better recommendations, greater consistency in analysis and recommendations, and greatly reduce the cost of audits. This paper introduces such a system and proposes navigational strategies that would be used by ground and aerial robots as they conduct automated energy audits. The strategies are divided into the interior and exterior environments. Simulations for both the interior and exterior navigational algorithms are presented, showing success in completely exploring previously unknown areas, identifying and maneuvering to objects of specific interest to energy audits, and circumnavigating open exterior perimeters of buildings.