# Landmine locating autonomous robot system (LLARS)

# Objective

The landmine location autonomous robot system or LLARS, is tasked with being able to autonomously detect landmines by identifies anomalies in the local magnetic field. To demonstrate this, LLARS will be placed in a 50 square meter room, containing 10 magnets (acting as landmines), and will be given 15 minutes to find them and signal their location. LLARS must also not signal the location of a landmine more than once.

# Literature Review

# Proposed Approach

Combined laser range finder and ultrasonic mapping.

Encoders and IMU to assist with distance traveled

Wall follow initially? Might interfere with map

Build map, than create best path based off map

Determine heading based off of detected direction of magnetic anomaly?

When anomaly detected in forward direction (with some degree outside) approach, stop over top and beep

Sweep room, in a pattern,

Machine vision?

# Related Experience

In-Res

# References