

Team: Treasure Hunters

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Abstract:

The Modular Remote Vehicle (MRV) is a modular vehicle that has been edited by senior design groups over the years. The purpose of this paper is to discuss one of the new modules for the MRV, the metal detecting module (MDM), along with other modifications made by Team Treasure Hunters to the MRV itself. The MDM was a module designed to detect metal from the shelf of the MRV to the ground. The MDM would do this by using an inductive switch to produce oscillation on coils which would produce a magnetic field. When metal would be placed near the MDM the magnetic field would be disrupted which would be measured by the MDM and a speaker would notify the user. Unfortunately due to an error with the printing of the circuit board this design was not fully realized. However, this report provides guidance that the MDM is possible and can be a starting point for teams in the future.