

# Deployable Remote Miniature Cylindrical Ion Trap Spectrometer (ReMiCIT)

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We present here the initial platform for a launchable, deployable remote mass analyzer. The mass-spec is designed to be deployable, remotely operated, rugged and cost effective. It has the capability for direct sampling and alternative front-ends. This makes it an excellent candidate for the detection of trace amounts of a chemical that might be hazardous to field personnel and fire fighters. The ReMiCIT can send data to a remote site to be analyzed immediately and in real time, and is robust enough to withstand field damage as the system is encased in a rugged chamber. Deployability is credited to its overall size, 6.25 inches in diameter, comparable to the size of a standard softball. The theory of operation and current milestones are presented. The aim of the project is to create some over reaching goals to aid in the development of future needs.