

4th Quarterly Report

PUBLIC REPORT

Date of Report: September 30, 2016

Contract Number: **DTPH56-15-T-00013**

Prepared for: US DOT

Project Title: **Development of an AMR Eddy Current-Based Crack Detection Sensor for Live Inspection of Unpiggable Transmission Natural Gas Pipelines**

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For quarterly period ending: September 30, 2016

Results and Conclusions: Technical work is underway to develop a concept for the individual sensors and complete, sensor module assembly. An overall space-claim has been developed and evaluated, with areas of growth and contraction necessary in separate parts. The mechanical interface between the sensors and robot is continuing to be defined. Size, weight, and power requirements are being considered and weighed against each other, overall performance, and ease of integration/implementation.

Plans for Future Activity: In the next reporting period, the technical work focus on furthering the development of embedded electronics. Designers will prototype and test those electronics, iterating as necessary based upon the results. Design efforts will also focus on the mechanical concept of the robot. We do not anticipate that the delay in project initiation will impact the overall timetable of the project.