

UTC Project Information	
Project Title	Cost-effective Bridge Safety Inspections Using Unmanned Aerial Vehicles (UAVs)
University	Oregon State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	
Total Project Cost	\$39785.00
Agency ID or Contract Number	
Start and End Dates	Start: 01/15/2015 End: 06/15/2016
Brief Description of Research Project	<p>The objective of this research is to evaluate how well UAV technology can be used to perform visual bridge inspections. Since the FHWA requires biennial bridge inspections, evaluating this exciting and emerging technology will provide helpful information to every region in the United States. To accomplish this objective, necessary goals are to:</p> <ol style="list-style-type: none"> 1) investigate existing UAV technology, including available platforms, sensors, flight controllers, and mission planning tools; 2) review FHWA requirements for performing bridge inspections per 23 CFR Part 650; 3) acquire UAV-based imagery and video for 1-3 representative bridges; 4) develop recommendations for how to properly plan flights for bridge inspections; 5) analyze resulting images and video to determine which FHWA bridge requirements are satisfied (and which ones are not satisfied); 6) transfer to the DOTs recommendations on how to properly implement UAVs for performing bridge inspections.

<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	
<p>Web Links</p> <ul style="list-style-type: none">• Reports• Project Website	
<p>Project Type (basic, applied, advanced, etc)</p>	<p>Applied</p>