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## *Ultrasonic Sensing for Small UAVs*

Indoor Uninhabited Aerial Vehicles are suitable to operate in hazardous environments where dynamic information about the surroundings is important to mission success. The objective of this project is to explore the feasibility of using high frequency sound range sensors integrated into a small UAV system to provide accurate measurements of obstacle distance within a limited space environment. Preliminary results of power consumption and ranging accuracy experiments show promising results for the use of Ultrasonic Sensing as a method of obtaining accurate, real time relative range data of surrounding objects. In addition, the research is performed using commercial off the shelf components and open source software in order for results to be shared with other researchers in all parts of the world.

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