



**ECE-6**

## Radio Directional Finder

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This project has been prepared to investigate the vehicle radio direction finding techniques, methods of implementation, and the design and execution of a prototype VRDF system. The purpose of using VRDF is to be able to detect and locate the source of an enemy (Fox) or unknown signal. The full paper has several details about different techniques, including time difference of arrival, Doppler, angle of arrival, and triangulation. The programs Matlab and Arduino were concurrently used in the implementation process. Our target is to implement a VRDF system based on angle of arrival to determine the location of a transmitter at a given angle. The accuracy of position finding/tracking is enhanced by adding more receivers, and after that to include the option of frequency scanning, so that the implanted prototype can determine the location of the unknown transmitter (fox) as well as its operating frequency.