

Title: My own handheld speedometer

This project is a continuation of a previous capstone project to build a handheld speedometer, like what police use to enforce speed limits.

The current design relies on a doppler radar capable of capturing speed measurements, to record the speeds of moving vehicles on the road. The project aims to ensure that the sensor element is accurate at capturing the speed of a targeted moving vehicle in various contexts:

- One-lane or multi-lane road
- One or more moving vehicles
- Various speeds
- Various distances

Accuracy is paramount and therefore the project also tackles the problem of calibrating the proposed speedometer solution.

Alternative solutions (designs) can be considered for the speedometer itself but also for the calibration solution.

To go along with the calibrated speed measurement device, a Graphical User Interface must report measured speed values in real-time.

Attention will have to be paid to both functional and non-functional requirements of the various elements of the proposed solutions (speedometer, calibration) so that design decisions can be properly justified and solutions adequately validated and verified. Proper engineering design practices must be upheld.

