The main purpose of the project is to avoid and/or reduce accidents due to vehicle collisions with animals, i.e. deer, elk, moose, bear, etc. The research project uses multiple sensors to detect these large animals crossing a roadway. They are placed on both sides of the roadway to cover a one-mile section. The sensors have a maximum sensing distance of one quarter of a mile. A central controller receives crossing information from each sensor pair, records the data for analysis and commands the warning system to activate (currently a flashing amber beacon). The warning system alerts the driver(s) to the animal presence thus avoiding the collision. The communications between the central controller and the sensors is the subject of this application.

The communications link is used as follows: the central controller initiates a timing signal, the sensors send their data back to the central controller, and the sensors with the warning systems (placed on the beginning and halfway points of the test mile) receive commands to turn on/off the warning system. The system data can also be monitored, and data retreived via a cell phone modem located at the central controller. The animal crossing data will be analyzed to determine the effectiveness of the system to avoid and/or reduce these accidents.

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