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Smart Parking System sensor issues

It was necessary to simultaneously solve the following two problems: the problem where the magnetic field variation was lower than the threshold in some parts of vehicles and they could not be detected and the one where some types of vehicles which were parked in adjacent parking spaces were mistakenly detected as vehicles parked in parking spaces which were the subjects for detection.

In this development, since the engine and motor contain a high proportion of iron, which is a magnetic body, we adopted an algorithm focused on the determination of this significant magnetic field variation, paying attention to the fact that the engine section has significant influence on the magnetism in any vehicle.

In addition, I set the goal of recognizing of vehicle-specific magnetic field variation by tracking the amounts of subsequent magnetic field variations to discriminate a vehicle parked in a parking space equipped with a sensor which is a subject for detection and a vehicle parked in an adjacent parking space which is not a subject for detection and made efforts to solve it.