OBD Stuff and Things
Project Concept Document

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1 Introduction

Every car in the United States since 1996 is required, by law, to contain on-board diagnostics. This standard, codified in SAE J1939 as on-board diagnostics II (OBD-II), is used for everything from reading fuel levels, to checking engine warnings for diagnostic purposes. The OBD-II specification specifically requires cars to make available a port in every car that can be used to read messages. A device is then plugged into this port to read messages over various protocols implemented by the car manufacturer. Currently, technicians must manually plug in a device into this port in order to read OBD-II messages. Our project aims to add wireless functionality for OBD-II via Bluetooth to be interfaced with Android compatible devices. Furthermore this project aims to make communication cryptographically secure.

2 Project Objectives

This project has quite a few objectives

2.1 Bluetooth Functionality Board-side

Wireless!

2.2 Bluetooth Functionality Android-side

Java!

2.3 Cryptographically Securing Messages

Using generic over the counter crypto

2.4 Power Requirements

Needs to be able to be powered of car's power.