## Fone2Find

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A great deal of time is wasted trying to locate misplaced keys. This can ruin your day, leave you late for work or school, stretch relationships, increase the blood pressure and can result in dangerous driving as you try to make up for lost time. The aim of the project was to develop an electronic audio device which was capable of finding misplaced keys accurately, reliably with the element of personalisation. A range of possible options were considered, constructed and evaluated to include, GSM and Bluetooth technologies. The GSM Module included a circuit board with a range of electronic components including speakers, amplifiers, power source and a USB port. This option was declined on the basis of the fact that it required detailed network support and had a greater power requirement. The preferred option involved the use of a Bluetooth module with supporting components to include a rechargeable power source, amplifier, speakers and a data storage capacity. Further refinement of this option involved the evaluation of three specific Bluetooth Modules and complementing components resulting in reduced power consumption, size reduction, dual mode function, compatibility and cost reduction. Key features of this device involve inductive charging, incorporation into the car key PCB footprint and pre-programming to give a personalised sound output. With sixty millions cars manufactured each year the Fone2Find device offers a range of options, namely, embedding the technology into new key manufacture, complementing the existing car market as a Key Fob and the added potential of personal data storage.

Awards Won: Fourth Award of \$500