

ABSTRACT

Title: Modular GSM GPS Tracking Device

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Project Type: Engineering

Category: Electronic and Electrical Engineering

Due to the high rate of vehicle and petty theft as reported by last year's governmental crime statistics and high prices of existing GPS trackers on the market, the decision was made to design, test and manufacture a modular GSM GPS tracking unit that can be used for multiple applications.

The unit had to comply to the following criteria to meet its goal: it had to be modular, easily manufacturable, compact, draw low current and it should not need a subscription to a third party. Emphasis was placed on reducing the possible retail cost below the prices of currently available alternatives.

Research was done on the parts and skills required to design a schematic and PCB layout accordingly. Software was developed to compliment the hardware. Two prototypes preceded the final design to test the concept and improve on the design criteria. After the final prototype was designed, the final PCB layout was then sent to a factory to be fabricated. The final step was to assemble and test the board to see how well it met the criteria.

The final design proved to be very effective and accurate in its GPS tracking capabilities. All criteria were met and some even exceeded beyond expectation.