



GPS/GSM TRACKER SYSTEM WHICH CHARGED BY SOLAR PANEL FOR BATTERY OPERATED VEHICLES



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Introduction

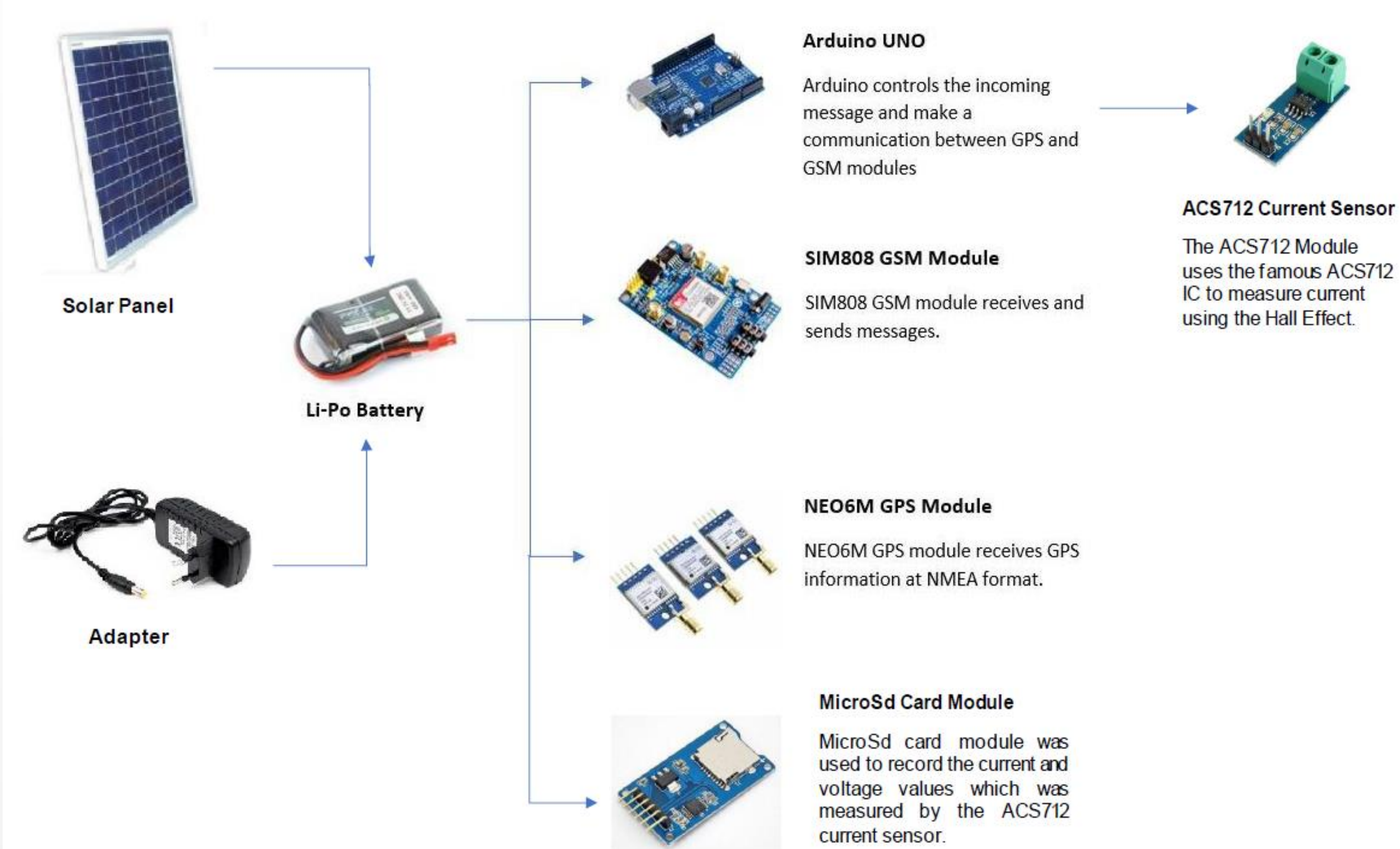
A vehicle tracking system is an electronic device installed on a vehicle to enable the owner to track the vehicle's location. This design is a vehicle tracking system that works using GPS and GSM technology, which would be the cheapest source of vehicle tracking and it would work as an anti-theft system.

Project Description

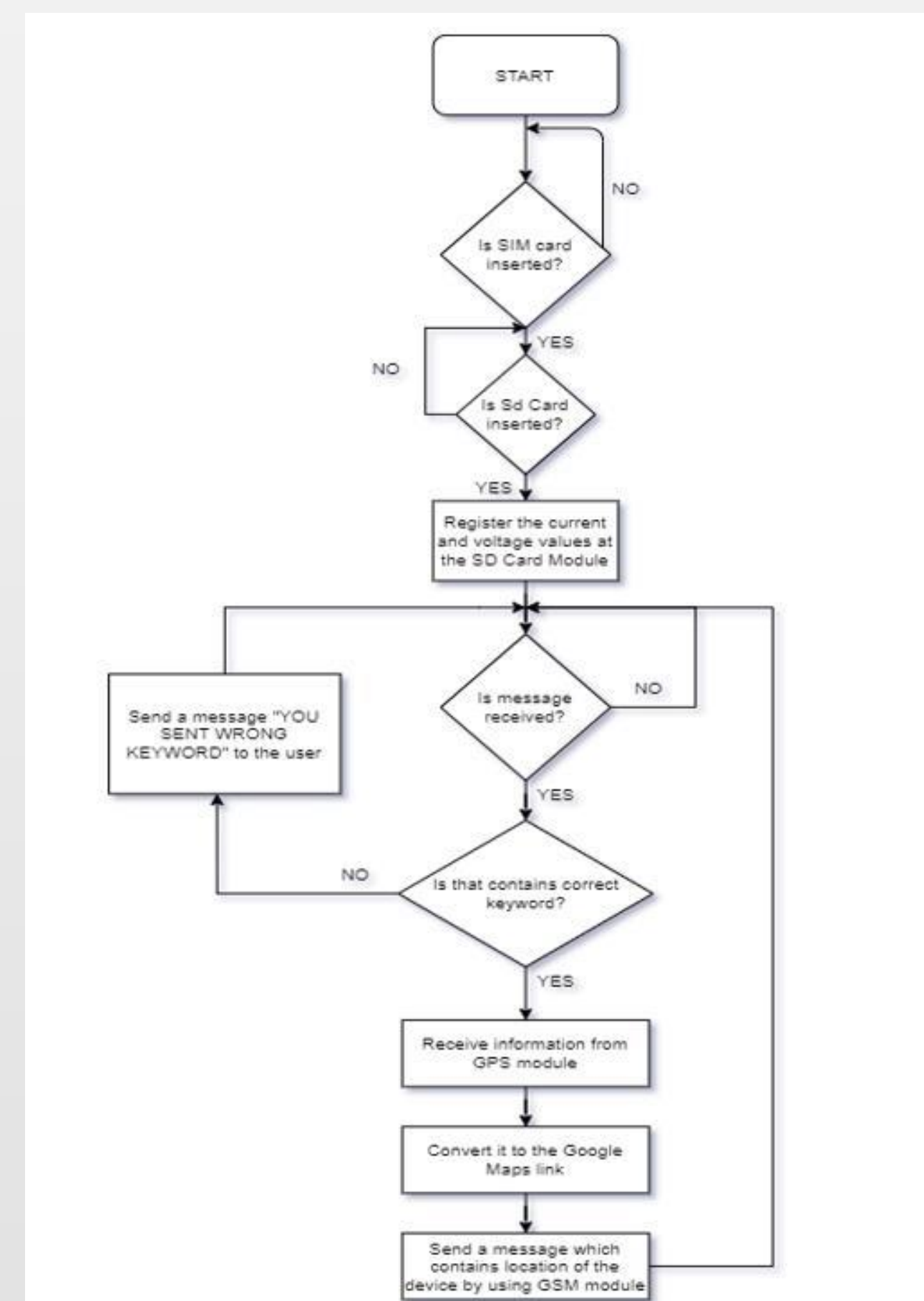
It consists an arduino as a microcontroller, gsm and gps module, current sensor and microsd card module as main parts. Basically, Gsm module supply communication between device and user. Gps module decode the information that's send by satellite. When users want to detect where is the vehicle's nearly exact location users have to send a sms including the the correct keyword which specified before. When users send the correct keyword gps module detect the location, and microcontroller transmitted to that information to the Gsm module. After that Gsm module sends the location of the device to the user via Sms. If the sending message doesn't contain the correct keyword the system won't send the location and warns the users about sending wrong keyword.



Scheme Of The Project



Working Principle

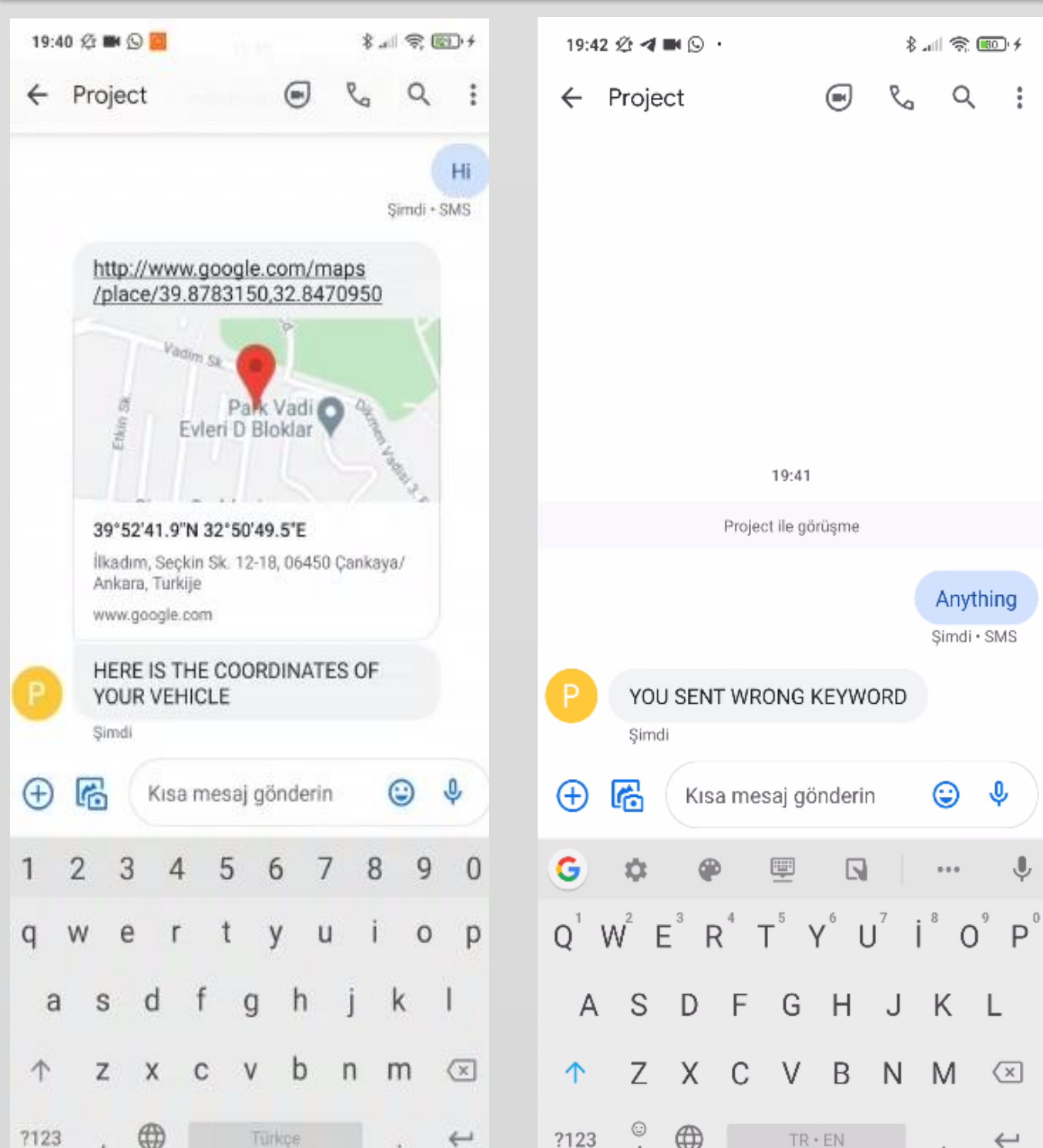


Current Sensor Values

Dosya	Düzen	Bilçim	Görünüm	Yardıml
Current=0.0517A			Voltage=0.0096V	
Current=0.0517A			Voltage=0.0096V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0252A			Voltage=0.0047V	
Current=0.0781A			Voltage=0.0144V	
Current=0.1045A			Voltage=0.0193V	
Current=0.0252A			Voltage=0.0047V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0252A			Voltage=0.0047V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0252A			Voltage=0.0047V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0252A			Voltage=0.0047V	
Current=0.0781A			Voltage=0.0144V	
Current=0.0517A			Voltage=0.0096V	
Current=0.0517A			Voltage=0.0096V	

Applying this circuit as in the figure the current and voltage values was measured using current sensor in every 0.5 secs. and all data sent to the sdcard using MicroSd card module. MicroSd card create a text file and saved all data in it. Using that way it is observed that the current and voltage values when GSM/GPS vehicle tracking system is on.

Results and Discussion



Here you can see the result of one of our tests. The responses, according to the correct keyword and a random message. The exact location of the device after sending a correct keyword is acceptable difference.

Reading a message => V: 0.014V, I: 0.07807A

Using Gps Module => V: 0.019V, I: 0.10449A

Sending message => V: 0.024V, I: 0.13091A

Acknowledgements

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