

## CAN Bus & GPS System Function Definition

System	Functional requirements	Specs	Alternatives
GPS	GPS System must be able to successfully get the position of the user and send the information to the microcontroller via GPIO pins using a communication standard such as UART, SPI, or I2C.	-3m accuracy minimum -Function inside a car -fit inside a small box under driver's seat	N/A
CAN Bus	Retrieve the real time speed of the vehicle as well as either the speed of each of the wheel and the brake pedal position, or an indication of if the vehicle is slipping (ABS signal)	-Easy to use	K-Line (UART) Or OBDII controller
Power Supply (cigarette lighter)	Provide power to each of the systems in the project.	-Easy to use -Provide enough watts of power	Battery