

Car data logger

by Freya Vafadari

Submission date: 01-Jan-2025 01:40AM (UTC+0000)

Submission ID: 246974458

File name: 32483_Freya_Vafadari_Car_data_logger_523682_1912042797.zip (4.98M)

Word count: 0



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GRADEMARK REPORT

FINAL GRADE

GENERAL COMMENTS

37 /100

PAGE 1

GRADING FORM: SMU GENERIC_GJ

FREYA VAFADARI

37

RESEARCH-INFORMED LITERATURE



Your review of systems is limited to one home built project and no commercially available systems. A review and comparison of commercially available systems would have greatly improved this section. 10%

1

KNOWLEDGE AND UNDERSTANDING



Your schematic diagram could be clearer and there are also a couple of issues. The output of 7805 regulator not connected to anything. You

8.75

are showing -12V applied to the amplifiers, but there is no mention of a -12V power supply on the Proteus schematic and easy-pc schematic. Your sensor signals should not enter the PIC before passing through the signal conditioning circuits - the zener clamp is there to protect the PIC. You have not included any flow charts or structure diagrams for the software. 35%

ANALYSIS

 Good selection of microcontroller, although there is no discussion about sample rates and data storage requirements. I think there may be some misconceptions regarding the number of sensors required: there should be four sensors to measure the suspension travel, and the road speed and engine RPM must be able to be measured simultaneously requiring two sensors. Your engine RPM sensor has no output connection on it to allow you to connect it to your system. The remaining sensors are well chosen although some images in the comparison table would have improved the selection. 35%

12.25

PRACTICAL APPLICATION AND DEP.

 Your costings do not include individual quantities and could be tabulated better. Good attempt at future enhancements. 55%

11

SKILLS FOR PROFESSIONAL PRAC.

 The report could be presented better - there is no cover page, lots of things are split across

pages when they don't need to be; you have captions on all your images, but don't refer to them in the text. 40%

4