Online Ethics Center
FOR ENGINEERING AND SCIENCE

Safety Questions

Author(s)

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Description

Questions concerning ethical considerations of safety from the case study "Ethical Issues in the Design of Ultra-Lightweight Vehicles."

Body

These are the questions that correspond to the safety portion of the ethics case study:

1. Are the fundamental responsibilities of safety engineers compromised in the design of this lightweight car?
2. Risk and cost benefit analysis are critical components of any engineering process. Describe the ethical issues that a designer of a lightweight car faces when conducting these analysis.
3. If the theory of risk homeostasis is correct (there are debates about this, some studies indicate that the theory is empirically verified and others claim that the theory is empirically refuted), is it ethical to design cars for perceived levels of risk? Why or why not?
4. Should lightweight cars be required to meet the same government safety regulations as regular cars? Why or why not? Is the government obligated to introduce any new legislation regarding the manufacturing of lightweight cars?
5. If some cars are significantly more safe than others, are engineers violating any ethical standards in designing cars that are not as safe as they could be? What

other factors come into play in addition to ethical considerations when designing for safety?

Notes

Rights

Resource Type

Case Study / Scenario

Topics

Public Health and Safety
Safety

Discipline(s)

Engineering