

Design and Ethics Considerations

2025-06-01

Capstone Team #	03
Capstone Name	Aircraft Sensor
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Part 1: Design Considerations

You are asked to first consider these issues and then decide whether they are relevant to your capstone project. Specifically, you are asked to decide whether your design needs to consider:

- Public health, safety, and welfare
- Global factors
- Cultural factors
- Environmental factors
- Economic factors

It may be unlikely that your design should consider all of these, but it is very unlikely (or impossible) that it should not consider any of these. So, the first stage is for your team to consider each of these factors and decide if they are relevant to your design. Next, you should give a short explanation for each, especially for those that you think are relevant. Explain why they are relevant and how your design may address it. It is OK if your capstone doesn't address all of these issues. You might think about how the future of this project might affect these categories, if that helps.

Did you consider various factors in the design of your project/product? Choose Yes / No / Possibly, and discuss why you did / didn't / might have.

Consider:	Yes/No/Possibly	Why?
Public health, safety, and welfare	Yes	Our device is intended to prevent aviation-related accidents, meaning that our focus is public safety and welfare
Global factors	Possibly	Our device can be used by all people, meaning that if our device is successful enough for production, considerations for the global market may need to be taken into consideration.
Cultural factors	No	Our device is neutral in nature. It is concerned only with taking measurements of the environment and has no impact on any particular culture or groups of people.
Environmental factors	Yes	We are inherently concerned with environmental factors because our device measures conditions present in the environment. Its existence does not harm or benefit the environment, as it is only an observation tool
Economic factors	No	Our device costs money to produce, but it does not have any impacts on the wider national or global economy.

Part 2: Ethics Considerations

In industry, you will have to recognize your own and your company's ethical and professional responsibilities. Not only would you have to recognize them, but you would also have to make judgments regarding them. In this project, you are asked to only consider if there are any potential ethical problems that could come up in your device (product) but the quality of your explanations (i.e., your judgment) will not be evaluated. Please consider the impact of your capstone project in these contexts:

- Global
- Economic
- Environmental
- Societal

Did you consider various contexts in which ethical issues may arise in the design of your project/product? Choose if it's applicable / not applicable / might be applicable, and why / why not / why it might be.

Consider a context for ethical decision-making	Applicable: Yes/No/Possibly	Why?
Global	No	Our device is neutral in nature. It is concerned only with taking measurements of the environment. There are no globally related ethical considerations regarding its design, production, or use.
Economic	No	Our device is neutral in nature. It is concerned only with taking measurements of the environment. There are no economically related ethical considerations regarding its design, production, or use.
Environmental	No	Our device is neutral in nature. It is concerned only with taking measurements of the environment. There are no environmentally related ethical considerations regarding its design, production, or use.
Societal	No	Our device is neutral in nature. It is concerned only with taking measurements of the environment. There are no societally related ethical considerations regarding its design, production, or use.