

# Assignment 3

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## Case Study 1

Charlie should tell the whole truth. As an engineer, his main duty is to protect public safety, not the company's short-term finances. He has found clear proof of a design flaw that is directly linked to fatal accidents. If he hides this or lies in court, he breaks the basic rules of engineering ethics and could cause more deaths. While telling the truth will cost the company a lot of money and harm its reputation, trying to cover it up would lead to even worse consequences if discovered. Being honest and taking responsibility is the only right way forward for both Charlie and the company.

## Case Study 2

1. Yes, flaws should be revealed, especially if they affect the product's main job. Hiding them breaks trust and is an ethical problem.
2. No, it's not only about safety. Being dishonest or breaking promises to customers is itself an ethics problem.
3. No, this does not solve the ethical problem. This kind of general warning is like trying to avoid responsibility. It doesn't honestly communicate about specific, known flaws and takes away the customer's right to make an informed choice.
4. An engineer cannot be 100% sure there are no defects. But they can reduce the risk a lot by following strict design rules, having other engineers check the work, and doing thorough testing.
5. The acceptable level of defects depends on the risk. This means how likely the defect is to happen and how serious the results would be. A defect that could cause a disaster is not acceptable, even if it's very unlikely to happen.
6. Yes, it definitely depends on the product. For critical parts in medical or airplane equipment, even tiny defects are unacceptable. For minor, non-critical issues in everyday electronics, people might accept a higher level.

## Case Study 3

It is ethically problematic to keep selling the second type of spray gun over the counter as if it's normal. This design has sparks by its nature, which makes it fundamentally more dangerous than the first, safer type. Relying only on a manual people might not read and a warning label that looks similar to the one on the safe product is not enough to prevent serious, foreseeable harm. The manufacturer should not just rely on warnings. Their first goal should be to redesign the product to remove the spark hazard completely. If they can't do that right away, they should stop selling it. They should also take stronger steps, like putting very clear picture warnings on the gun itself, providing safety instructions in multiple languages, or even recalling the product, all to ensure public safety.