

# Tolerance

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Using the article found at <http://www.sigmetrix.com/what-is-tolerance-analysis/>, I came up with the following:

Tolerance is imperfections in design that affect the capability of a product to meet customer expectations. Tolerance directly influences the cost and performance of products. If I were to describe this in an easier way to a child or customer, I would say that it is what you would tolerate in a product but was not necessary to function.

I asked a customer for help thinking of ideas and got a lot more than I bargained for... she suggested:

1. Make more stainless steel earrings. Due to allergies, more earrings should be made out of stainless steel and not the cheaper metals.
2. The Arjo lift equipment for hospitals "sit to stand" has a problem, the arm troughs are not deep or long enough to fit the arms and when the person stands, their arms come out. The suggestion is to have the arms go up higher/deeper for the trough so they don't come out.
3. The cameras today do not have the lens cap attached. The camera companies are saving money by not attaching with cord. She suggested a cord.
4. She would like a kayak higher on the sides so that the waves don't come in as easily.
5. She would like a spatula with a longer handle so she doesn't burn herself. I believe she was talking about a rubber spatula with the heat resistant rubber.
6. She reminded me of a problem we have here in our rural community. The newer fab for computer software companies is to issue a card with keycode instead of a cd with the software. The user then downloads the software program (Microsoft Office in this case). A large portion of our community is still on dial-up here. One woman spent 8 hours trying to download her program and then it failed. Not every customer lives in a city with good internet. The software companies need to offer the users options. She eventually had to pay her computer tech to download and install the software.
7. My customer also suggested that her glasses have clear parts on them so that when she wears glasses, it doesn't look like they are on, invisible.

She was my one-woman sounding board. She did have a few more tolerances but they didn't have anything with a product so I left them off.

I chose to use one that relates to my store. I have a photo shop and as a result, sell photo frames of all styles and quality. When a person changes their child's school 8x10 picture, they go to put the picture back with the others and get distracted so the picture gets shoved into a random spot. Why not keep all the photos together? There could be a sleeve attached to the back that could hold the older photos or the frame could be thicker to hold all those extra photos.

This would improve the structure of the frame, making it thicker, heavier, sturdy and harder to knock over. It would also make it easier for the user to find the photo when he/she needs them rescanned or whatever. This would keep all the child's grade school photos in one place without misplacing them.

