

ERROR PROOFING



Error Proofing means designing systems and equipment in ways that:

- It is impossible to commit an error in the first place (**prevention**), or
- Any error that is committed is obvious (**detection**) and can be fixed/facilitated (**corrective action**) right away

What are the results of Error Proofing:

- Decreased number of defects and/or rework with very little capital investment
- Reduced process variation
- Prevention of erroneous data
- Prevention of an error being passed on to the next process step
- Improved customer outcomes

We often have competing demands for our attention while trying to perform complex tasks. Errors occur when our actions do not agree with our intentions, even though we are fully capable of performing the tasks.

For example, we might:

- *Forget to enter information, or enter it incorrectly*
- *Leave out a step of the process, or do it in the wrong order*
- *Put something together in the wrong way*

The Ten Times Factor

If someone commits a mistake and passes it on to the next step/person in the process (now an error), the time and effort required to find and fix that error increases by a factor of ten. For each subsequent step that the error is passed along, the time and effort is also increased by a factor of ten.

For example, if it would take one minute to fix the error at the point it was made, it would take ten minutes at the next step and one hundred minutes at the third step, if caught. This waste dramatically increases the time to produce one thing, which could have been spent producing 10 more things, 100 more things, etc.

MISTAKE

Something that is done incorrectly but is immediately caught and fixed

VS

ERROR

A mistake becomes an error when it is not caught, but rather is passed on to the next process/person