



The Buggy Factory Inc.



The Buggy Factory

Understanding Process Capability



PathStone Group



The Buggy Factory Inc.

Scenario:

The Buggy Factory has a new model. As per the customer needs, the car need to cover a specified distance with one impulse. The customer has provided de minimum and maximum distance the car has to accomplish.

Process Capability analysis.

1. The current process has a 100m slide, and we placed it at 50 cm high.
2. With 15 trials, measure the distance covered.
3. Complete the workbook template to determine the Capability including LCL and UCL.
4. With the Customer Specs (LSL and USL) discuss if the current process can deliver what customer requires.

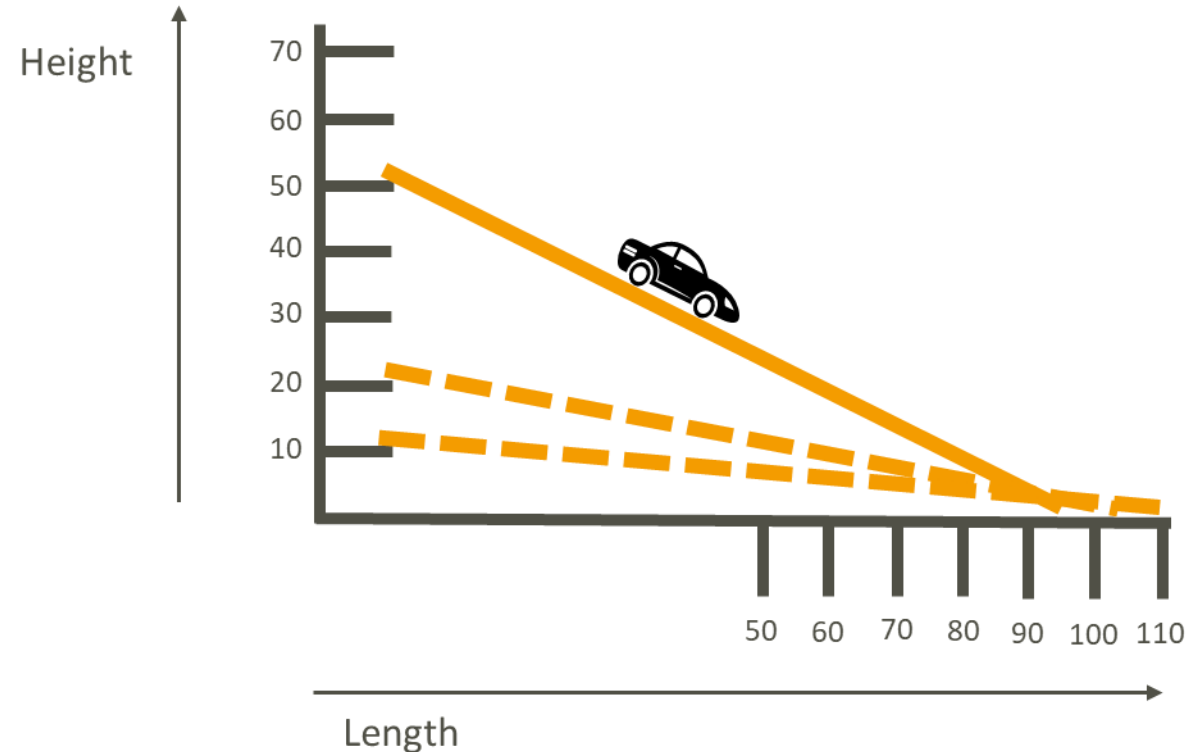


Process Capability analysis



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5. If the process is not capable, improve it.
6. Use the different slide length available if required and change the height as needed.
7. Run trials until the car can be in specifications.
8. Validate the improvement by running at least 15 trials. Complete the workbook to calculate capability.



Process Capability analysis



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1. Discuss:
 1. The Cp before and after.
 2. What is the mean, mode, standard deviation?
 3. Does the histogram look skewed?
 4. Does the process look centered?, what does Cpk say?
 5. Can the Buggy factory ensure that the new car model is in between the customer specifications?

