

Homework 4

Friday, March 8, 2024 5:28 PM

3. Looking at the charts and the C_p and C_{pk} values, you notice that 4 of the 7 machines are not functioning as they should. (8 pts)
- a. Which machine likely has a worn bearing, causing the spindle to shake and vibrate more than it should? *Hint: this is analogous to the machine becoming less precise.*
 - i. Machine 4
 - b. Which machine likely has a tool that's wearing out very quickly? *Hint: remember, tools are prone to chatter and become less precise as they dull.*
 - i. Machine 2
 - c. Which machine is likely operated by an inexperienced machinist? *Hint: the workers switch every shift, and 20 samples are collected each shift.*
 - i. Machine 7
 - d. Which machine likely has a misaligned fixture? *Hint: otherwise, this machine works just fine.*
 - i. Machine 1