

Homework #6: Process Control

2.008 Design and Manufacturing II
Spring 2004

Out: April 07
Due: April 14

Problem 1

You are responsible for two different manufacturing lines, both of which produce arms for Karl's Mechanical Squid. The Upper Specification Limit of the line is 3.52 and the Lower Specification Limit is 3.18. Line 1 produces arms with a μ of 3.35 and an σ of 0.07. Line 2 produces arms with a μ of 3.43 and an σ of 0.05.

- a) For Line 1: what is the C_p ? What is the C_{pk} ?
For Line 2: what is the C_p ? What is the C_{pk} ?
- b) Which line produces a greater percentage of parts within the specification limits? What are the exact percentages for each line?