

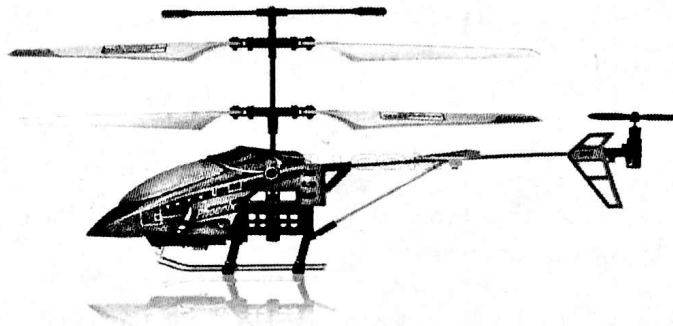
IE 151: Class Project

Aluminum Replicas!

4/16/2014

You may work with 1 other individual on this project.

Congratulations! You have just been hired as the lead industrial engineering team for a new product launch from Pines Alumination. The CEO has decided she has had enough of storage and wants to shift her company into the production of aluminum replica helicopters. You will be working with the production of these helicopters.



Part I: Program Creation

The company currently has 3 manufacturing plants. One plant makes helicopter bodies, one makes propellers, and one makes landing struts. In order to assemble this helicopter we will need the following parts made from the prospective plants...

- 1 helicopter body
 - Produced normally with $\left\{ \begin{array}{l} \mu = 35 \text{ minutes} \\ \sigma = 5 \text{ minutes} \end{array} \right\}$
- 3 helicopter propellers
 - Produced normally with $\left\{ \begin{array}{l} \mu = 13 \text{ minutes} \\ \sigma = 2 \text{ minutes} \end{array} \right\}$
- 2 helicopter landing struts
 - Produced normally with $\left\{ \begin{array}{l} \mu = 17 \text{ minutes} \\ \sigma = 3 \text{ minutes} \end{array} \right\}$

Hint: *matlab value* = $\mu + \sigma \cdot randn$

Your team needs to write a matlab program that will simulate the process of creating and assembling these helicopters. Your program must collect data on the following.

- How many assembled helicopters are made per day