



Academic Activity Chapter 5

Systems Engineer Game

Design a board game of the production process. In the game, each player must develop a product. The goal of the game is for each player to get their product all the way through the production process and accumulate money. The player with the most money at the end wins. The game board should be divided into sections including a product concept phase, a prototype or testing phase, a limited production or test marketing phase, and a full-scale production phase.

The game must include the following design constraints:

- The game needs to have player pieces for 2 or more players.
- The game must have a clear set of simple rules.
- Players may use dice, a spinner, or other device to determine spaces moved in a turn.
- The board should have approximately 60 squares.
- 60% of the squares should be action squares. For example, instruct the player to draw a card from a stack or have some directions for the player to follow.
- There must be a monetary component, and each player should start out with the same amount of capital in cash or credit.

Consider the following when creating game cards:

- Possible production concept phase actions include monetary amounts from investors, grants for production, a poorly pitched meeting that results in no additional capital, and presales of the concept for additional capital.
- Possible prototyping and testing phase actions include successes with additional capital awarded, presales to provide additional capital, low sales, prototyping failures, or setbacks that send the player back several spaces or to the beginning.
- Possible limited production or test marketing actions include successes and failures that result in monetary awards or fines, presales for additional capital, manufacturing setbacks that cost additional capital or send the player back, and marketing successes or blunders for additional money or loss of money.
- Possible full scale production actions include successes, failures, lawsuits, patent infringement, and marketing success or failures.
