

Huckleberry Splash: A Product Development Case Study in the Amusement Industry

by

Timothy Robert Jacobi

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Committee in charge:

Professor Alice Agogino, Chair

Professor Sara Beckman

Professor Dennis Lieu

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## **Introduction**

In recent years, the amusement industry has enjoyed successes in the burgeoning indoor waterpark market. Most waterparks have been additions to hotels in an effort to boost winter booking. New waterpark resorts such as Kalahari, Great Wolf Lodge and Wilderness Resorts are based around family weekend getaways, particularly during the winter. A number of larger amusement parks have also added separate waterpark sections and enjoyed increased attendance and business.

Successful amusement parks and waterparks regularly update their collection of rides in order to keep crowds coming back, and the increase in waterpark popularity has created the demand for new water attractions. Many new ride ideas develop from direct contact between park management and ride companies. The managers will indicate the types of rides that are most popular or the type of rides that would fill a demand. Usually the parks have a general idea of what they would like, and the manufacturers will use creativity and expertise to create the attraction.

Ride companies also create new rides based off of interesting new concepts in anticipation of market trends. If this is the case, the concept will be introduced to potential customers for feedback very early into the process. At S&S Power, the amusement ride company for which I work, most of the ride ideas are invented by the C.E.O. of the company. He will be inspired by something he sees or does and imagine a ride idea he believes will sell. From there, he will gather a group of experienced employees and talk about the way the ride would function. Next, the ride will rapidly move into a prototype stage driven by the C.E.O.'s involvement. Most ride companies will introduce one larger ride or several smaller attraction in any given year.

In the summer of 2006, my familiarity with ride creation and the vastly expanding waterpark market allowed for the introduction of a ride idea that I had had for a number of years. It is a ride that would combine the spectacle of a flume's water splashdown with the thrill and small footprint of the vertical drop tower.

The idea of the ride is to drop a passenger carrying vessel from a height, and let the vessel fall into a pool of water. The shape of the vessel would be the means to bring the vessel to a stop; the vessel coming to rest under acceptable acceleration limits as determined by national ride codes. The key to the ride is to transfer the vessel's initial potential energy into kinetic energy of the water, while creating a comfortable experience for rider and spectators.



*The flume and the vertical drop ride – would it be possible to combine the two?*

For a given height and vessel weight, it is theoretically possible to control the stopping force within reason. The target market for largest ridership is family rides, and a good rule of thumb is to try to keep the acceleration forces below 3 or 4 g's. Preliminary calculations showed this to be possible.

