



# Roller Coaster Design

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Course: 98-186 Roller Coaster: Background and Design

A historical map with a dark horizontal band across the center containing the text "Park Research". The map shows various geographical features and text. At the top, it says "may lurk HERE". Below that, there is a "Way to" label. The central band contains the text "Park Research" in white. Below the band, there are several irregular shapes representing land parcels or structures. One of these shapes is labeled "Way to COURTYARD" and another is labeled "Undercover".

# Park Research

Way to COURTYARD

Undercover

# Universal Orlando

Universal Orlando opened in 1990 with Universal Studios Florida as the only theme park. In May 1999 Universal's Islands of Adventure opened. Universal Orlando is completely owned by NBCUniversal and its affiliates.

## UNIVERSAL STUDIOS FLORIDA

Universal Studios Florida opened in 1990 and the theme of this park is the movie and entertainment industry. It consists of two major roller coasters

- Revenge of the Mummy (Opened in June 2004)
- Hollywood Rip Ride Rockit (Opened in August 2009)

Summer of 2013 will see another roller coaster open which is Transformers: The Ride

## UNIVERSAL'S ISLANDS OF ADVENTURE

Universal's Islands of Adventure opened in May 1999. It consists of seven distinct islands which are:

- 1) Port of Entry
- 2) Marvel Super Hero Island
- 3) Toon Lagoon
- 4) Jurassic Park
- 5) The Wizarding World of Harry Potter
- 6) The Lost Continent
- 7) Seuss Landing

There are two big roller coasters in the Islands of Adventure which are:

- The Incredible Hulk (Opened in 1999)
- Dragon Challenge (Opened in 2010)

# Coasters of Universal Orlando

There are four roller coasters in Universal Orlando

## 1) REVENGE OF THE MUMMY

Year Opened: 2004

Type: Steel

Manufacturer: Premier Rides

Height: (Could not find details/Inside building ride)

Inversions: 0

## 2) HOLLYWOOD RIP RIDE ROCKIT

Year Opened: 2009

Type: Steel

Manufacturer: Maurer Söhne

Height: 167ft

Inversions: 0

## 3) THE INCREDIBLE HULK

Year Opened: 1999

Type: Steel

Manufacturer: Bolliger and Mabillard

Height: 110ft

Inversions: 7

## 4) DRAGON CHALLENGE

Year Opened: 2010 (twin coasters)

Type: Steel

Manufacturer: Bolliger and Mabillard

Height: 125ft of both coasters

Inversions: 5 inversions in each coaster

# The Wizarding World of Harry Potter

The Wizarding World of Harry Potter is one of the seven themed islands of Universal's Islands of Adventure. It has three main attractions:

- Harry Potter and the Forbidden Journey (a simulated ride of the Hogwarts School)
- Flight of the Hippogriff (a kiddie ride)
- Dragon Challenge (a twin roller coaster ride)

Apart from these rides, this themed island has attractions such as Olivanders shop, the Three Broomsticks and Hogsmead.

## DRAGON CHALLENGE

Year Opened: 2010 (twin coasters)

Type: Steel

Manufacturer: Bolliger and Mabillard

Height: 125ft of both coasters

Inversions: 5 inversions in each coaster

This ride consists of two roller coasters: Chinese Fireball and the Hungarian Horntail. It was formerly know as the Dueling Dragons ride.



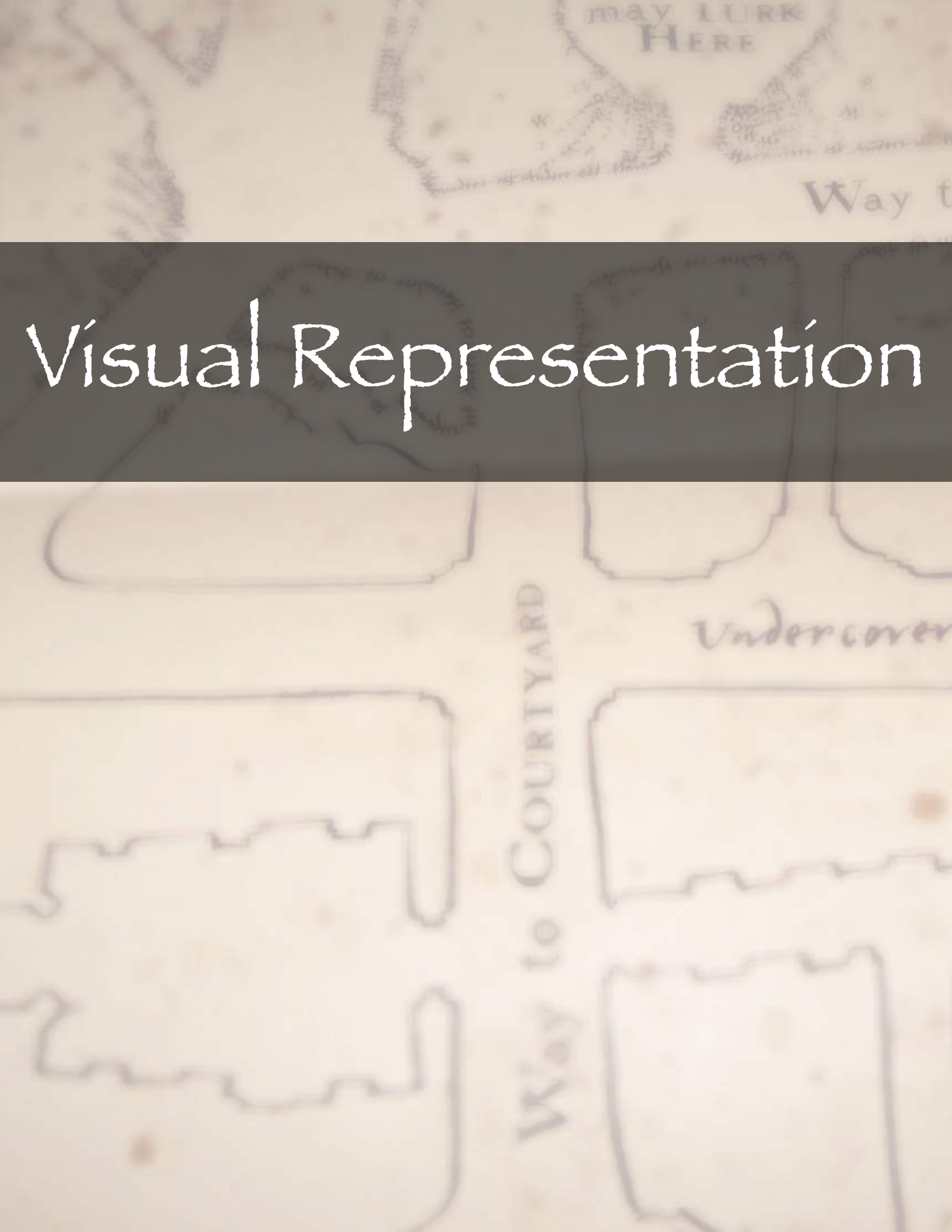
# Disappointments

## 1) JUST ONE THRILL COASTER IN HARRY POTTER LAND

Given the size of the Wizarding World of Harry Potter, there is just one single adult roller coaster. Harry Potter has fan in all age groups, but this themed island mainly caters to children. Also, the entire Universal Orlando has only four big roller coasters. The number of coasters is far less for such a big amusement park and needs more coasters!

## 2) NO WOODEN COASTERS

One would image that the sole roller coaster at the Wizarding World of Harry Potter to be a wooden coaster. But that is not the case! Being in Harry Potter land and not having a woodie coaster disappoints Harry Potter fans who enjoy thrill coasters. In fact, there are no wooden coasters in entire Universal Orlando!



may lurk  
HERE

Way to

# Visual Representation

Way to COURTYARD

Undercover

# Heist at Gringotts

This coaster would be built in the Diagon Alley section in the Wizarding World of Harry Potter. It would be next to Ollivander's Wand Shop. The Gringotts Bank building would be constructed and the ride 'Heist at Gringotts' would be built beneath the Gringotts Bank.



## COASTER STATISTICS

Year Opening: Summer 2013

Type: Wooden

Manufacturer: Great Coasters International

Height: 125ft

Length: 3000ft

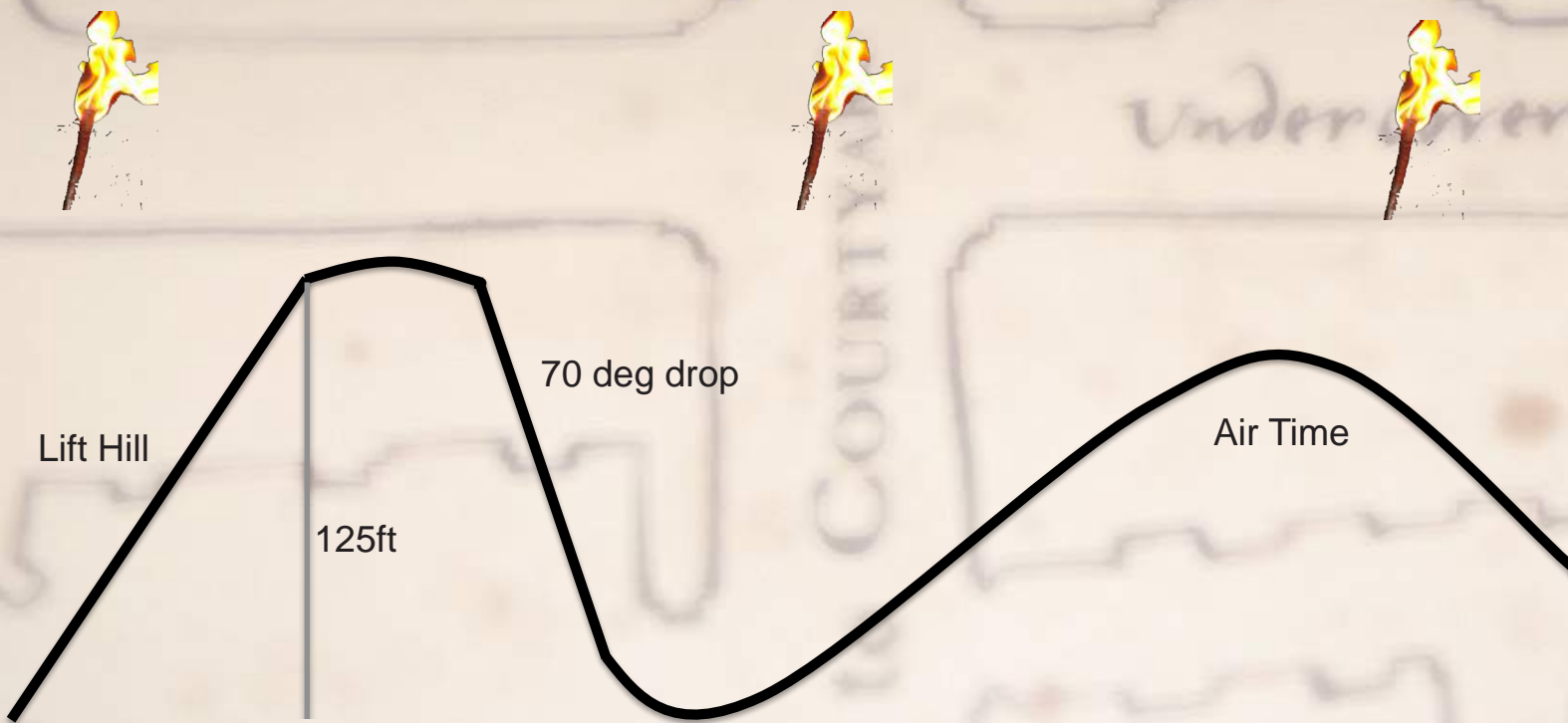
Inversions: 0

Cart: Millennium Flyer



# Heist at Gringotts - Section 1

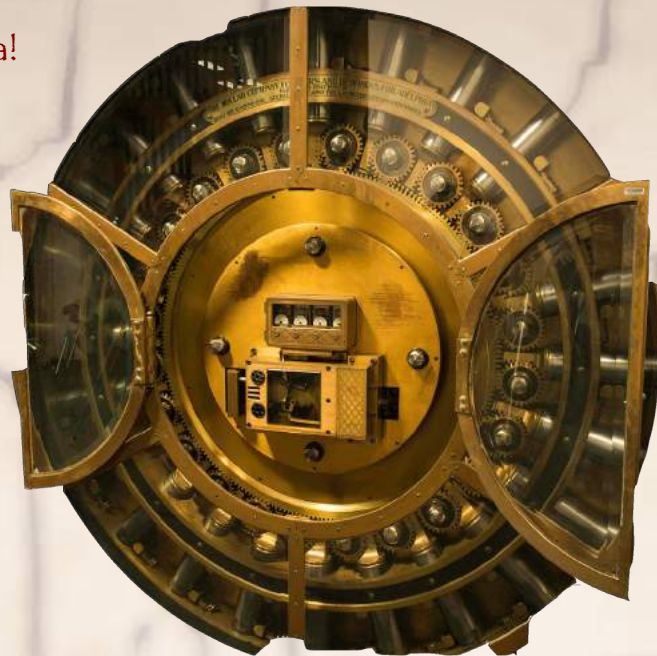
Section 1 of the ride consists of a 125ft lift hill. This is followed by a 70degree drop. This is followed by a huge hill that gives the rides a lot of air time. The entire ride is surrounded by rocks and boulders and the only source of light is the touch fires.



# Heist at Gringotts - Section 2

Section 2 of the ride consists of two steep banks. The transition between the bankings is very sharp and quick. At the end of the banking section, the vault opens with the spell 'Alohomora'

Alohomora!



Bank

Bank

Sharp Twist



# Heist at Gringotts - Section 3

Section 3 of the ride consists of three bunny hills. At the top of each hill are holographic Gold Coins aka Galleons in Wizarding language. The riders must raise their hands to collect the Galleons and increase the points of the whole group of riders.



Bunny Hills

# Heist at Gringotts - Section 4

Section 4 is the last section of the ride where the total Galleons collected by the riders are announced. After the score announcement, the riders are brought to the station.

Total Galleons: 1099!

Station



Thank You!

may LURK  
HERE

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Undercover

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