Toy Product Design
a project based adventure in product design
Who are we?

Geoff

David
Lab Instructors & Mentors
Toy Design at MIT?

Introduction to Product Design
Toy Design at MIT?

Introduction to Product Design

Art and Science
Toy Design at MIT?

Introduction to Product Design

Art and Science

It is actually very challenging
Toy Design at MIT?

Introduction to Product Design

Art and Science

It is actually very challenging

It is actually a serious industry

$18 Billion
US Industry excluding video games

NPD Group, 2014
Toy Design at MIT?

Introduction to Product Design

Art and Science

It is actually very challenging

It is actually a serious industry

74 Million Children in US under 17 years

U.S. Census Bureau, 2013
Course Objectives

Experience a product design process
Course Objectives

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Become comfortable with fabrication and design techniques and tools
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Gain insight into design for children and entertainment
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Experience a product design process

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Gain insight into design for children and entertainment

Enhance Creativity

A recent IBM poll of 1,500 CEOs identified creativity as the No. 1 “leadership competency” of the future.

Quiz!

1. What is your name?
2. What is a toy?
3. What is a product?
4. What is design?
5 minutes
What is Design?

Act of producing a plan for a specific effect

A scientific art or an artistic science?

The ultimate interdisciplinary subject
What is a Product?

Something that is produced by human or mechanical effort
What is a Product?

Something that is produced by human or mechanical effort

Something manufactured usually for selling
What is a Toy?

A tangible item that functions as a tool for play

Anything can be transformed into a toy
What is a Toy Product?

A tangible item DESIGNED to function primarily for play

Arts and media products?

Fun to use / fun looking products?

A toy is in the mind of the user. A toy product is in the mind of the designer.
Toy Product Design (noun)

The art and science of producing a plan for an item used for play that is intended to be manufactured and possibly sold.
Toy Product Design

Product Design Process
Toy Product Design

Product Design Process

Basic Engineering
Toy Product Design

Product Design Process
Basic Engineering
Play
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Toy Product Design

Product Design Process
Basic Engineering
Play
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Aesthetics
Graphic Design
Creativity Techniques
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Creativity Techniques
Model Making
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Creativity Techniques
Model Making
User Experience
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Creativity Techniques
Model Making
User Experience
Plastics
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
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Creativity Techniques
Model Making
User Experience
Plastics
Portfolios
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Creativity Techniques
Model Making
User Experience
Plastics
Portfolios
Presentation Design
Toy Product Design

Product Design Process
Basic Engineering
Play
Drawing and Sketching
Aesthetics
Graphic Design
Creativity Techniques
Model Making
User Experience
Plastics
Portfolios
Presentation Design
Teamwork
Toy Product Design

- Product Design Process
- Basic Engineering
- Play
- Drawing and Sketching
- Aesthetics
- Graphic Design
- Creativity Techniques
- Model Making
- User Experience
- Plastics
- Portfolios
- Presentation Design
- Teamwork
Design Process

Research
Design Process

Research

Ideation
Design Process

Research

Ideation

Detailed Design
Design Process

- Research
- Ideation
- Detailed Design
- Concept Refinement
Design Process

Research

Ideation

Detailed Design

Concept Refinement

Design for Production
Design Process

Research

- Ideation
- Detailed Design

Concept Refinement

Design for Production
Design Process
Design Process

COLOR DJ

Infection
Will you try to save the cell or take it over?
Color DJ / Audio Jack
Color DJ / Audio Jack
Infection

Will you try to save the cell or take it over?
Infection

Will you try to save the cell or take it over?
Design Assignment #1

Design a new 2.00b Logo

In 15 minutes

With fingerpaint

Only using other people’s fingers

you can discover more about a person in an hour of play than in a year of conversation — plato
Theme

2009 — Arts & Crafts
2010 — Outdoors
2012 — Imagination
2013 — “in the Dark”
2015 — Surprise

2016 — Taxidermy!
Theme

2009 — Arts & Crafts
2010 — Outdoors
2012 — Imagination
2013 — “in the Dark”
2015 — Surprise

2016 — ?
Class Finale

PLAYsentations!
Required Reading?
Required Reading?
Logistics - Locations

Lectures (3-370)
Monday & Wednesday
3:30–5:00 pm

Labs (35-307, PDL)
week of February 15
Wed. 7–10 pm
Thursday 9 am–12
Thursday 7–10 pm
Friday 9 am–12
Logistics - Locations

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be on time!
Logistics - Syllabus

16 Teams of ~5 Mentors + Instructor

9 Units

Grading

web.mit.edu/2.00b
Logistics

Weekend Workshops

Play Tests
Assignment (part one)

Statement of *your* thoughts on design and/or play

e-mail 2.00b-poobah@mit.edu
subject: [last name] 2.00b

by 10 pm tonight

as a **limerick**

- pay attention to rhythm, rhyme, and syllables

  - a limerick should not be *confusing*
  - it depends on the words you are *choosing*
  - it must be on *time*
  - it must be in *rhyme*
  - and the good ones are often *amusing*
Assignment (part two)

meet and greet!
thursday: A–K
friday: I–Z
PDL, room 35-307
9:30 am – 12:30 pm
3 minutes
bring 2 things:
class list finalized
Sunday
class schedule
(toy) product
Assignment (part three)

open your envelope
write your name
and age

Yoda, age 900
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