

ELEPHANT SPELLING BEE



MARTA SZPILEWSKA

Toys for elephants

Collaboration with the
Buttonwood Park Zoo in New Bedford, MA



Objective: design enrichment toys for elephants:



Ruth, 52

Asian elephant
with partially paralyzed trunk



Emily, 48

Asian elephant

The class with students from different departments at Massachusetts College of Art and Design faced the challenge of creating toys for elephants: Ruth and Emily at the Buttonwood Park Zoo in New Bedford, MA.

Budget for the whole class: \$ 2000

Time: 1 semester
to research
design
shop for the materials
build the toys
deliver toys to the Zoo

Meeting Ruth and Emily



To learn about elephants we did a lot of research, read articles and watched videos and then we went to the zoo to meet Ruth and Emily.

We observed their behavior and movement of the trunk to understand who we are designing for and what we should include in our designs.

Toy design : tire tube feeder

materials



bolts, chain, used tires

3d model



connecting the tires with bolts
and hanging them on the chain

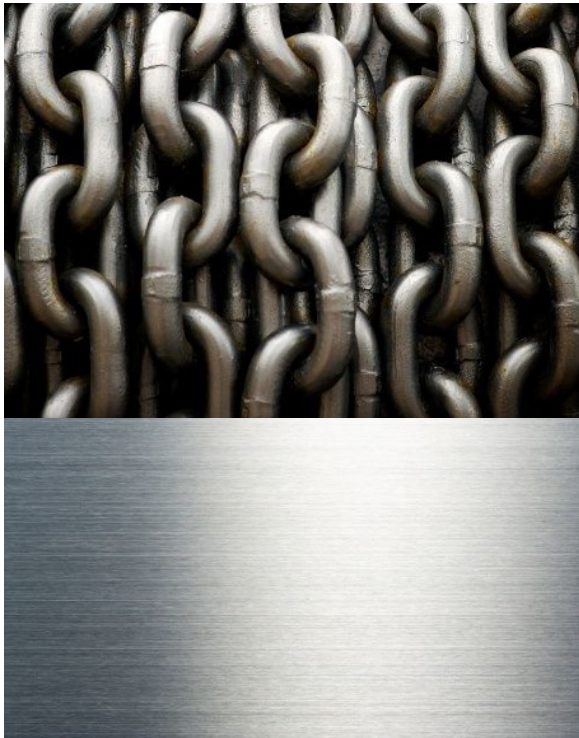
how it works



hanging the feeder
on the wooden structure
and filling it with food

Toy design : elephant spelling bee

materials



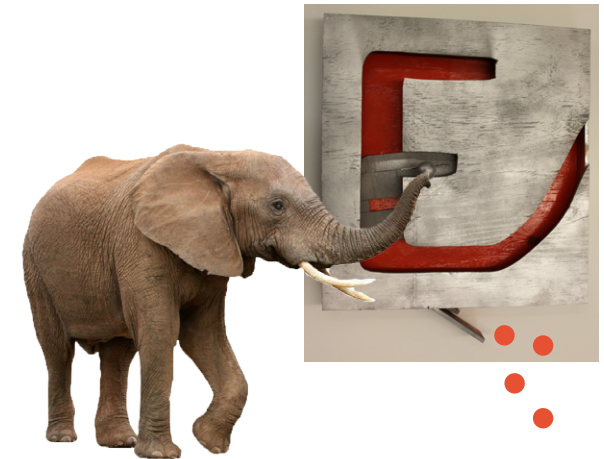
paint, knob, chain, sheet metal(4x8in)

3d model



cutting out letters in the sheet metal
installing the knob and the back
and creating 2x8in box

how it works

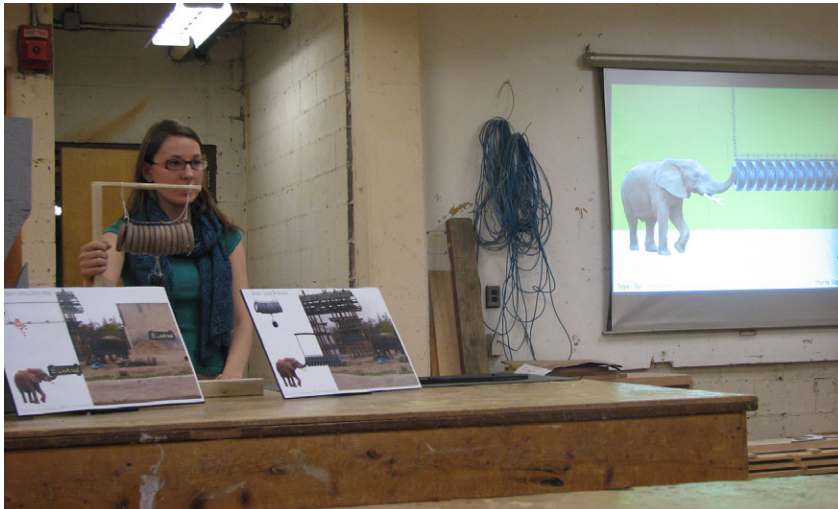


by moving the knob around, elephant
will be spelling a word and releasing
trap doors so the food can fall out



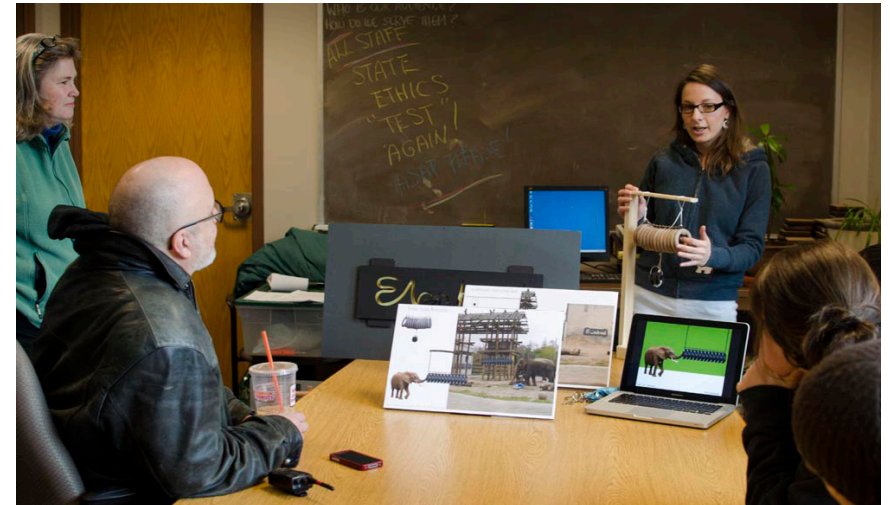
Presentation

in class



I presented both concepts in class they were well received so I decided to move forward with both and present them at the zoo

at the Buttonwood Park Zoo

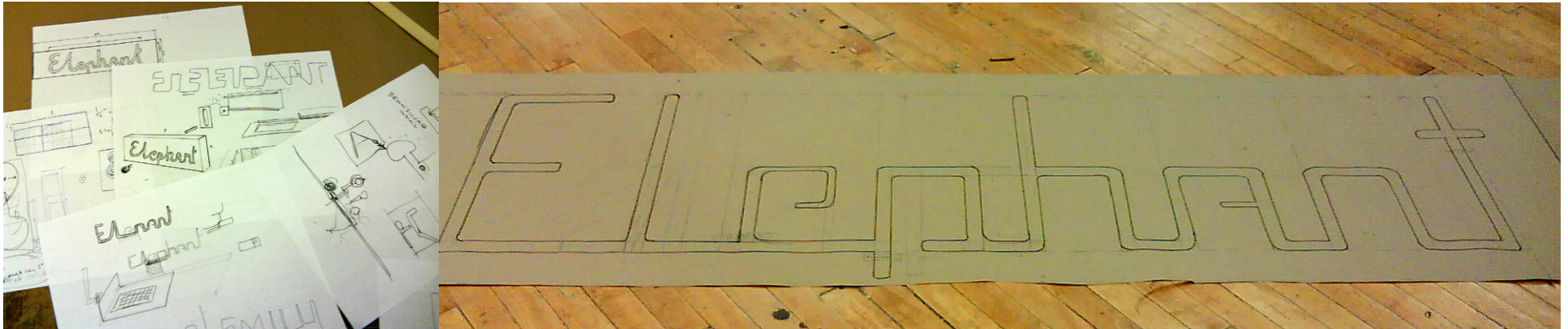


My both concepts were accepted by the Zoo but due to budget limits and time constraints I have decided to choose only one design and develop the "elephant spelling bee"

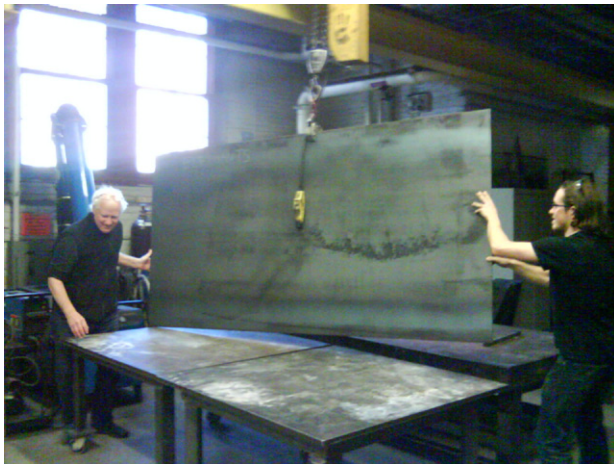


The making of the elephant spelling bee

letter layout refinement



I designed a simple font to keep the thickness of the letters same in all places for easy knob movement



I transferred the letter layout onto 2x8inch piece of 1/4 inch sheet metal
Here helping: Rick Brown, Sean Maze, J Shia, Missy Kemp

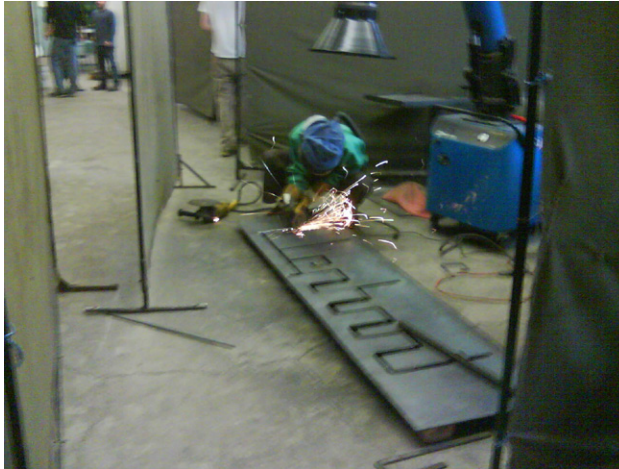


The making of the elephant spelling bee

cutting



Plasma cutting by Ben Silva



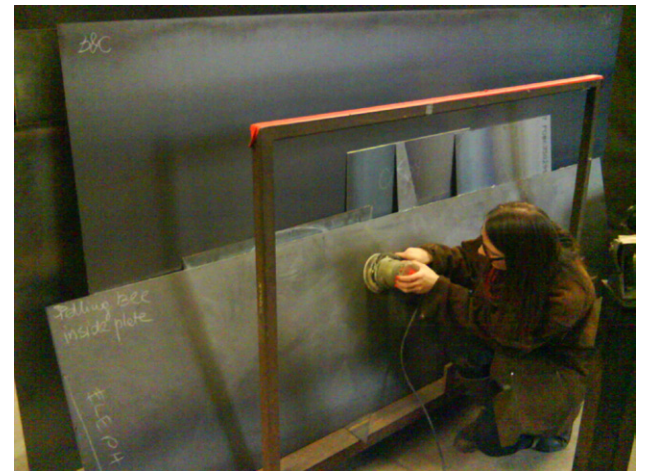
Grinding the letter edges by Ben Silva, Holly Kelly and Rick Brown



Tubing cutting by Sean Maze



Angle iron cutting by Sean Maze



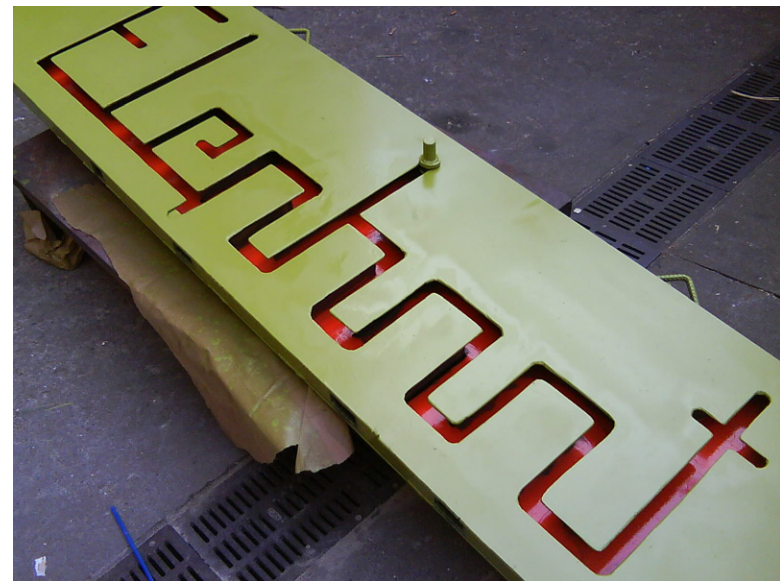
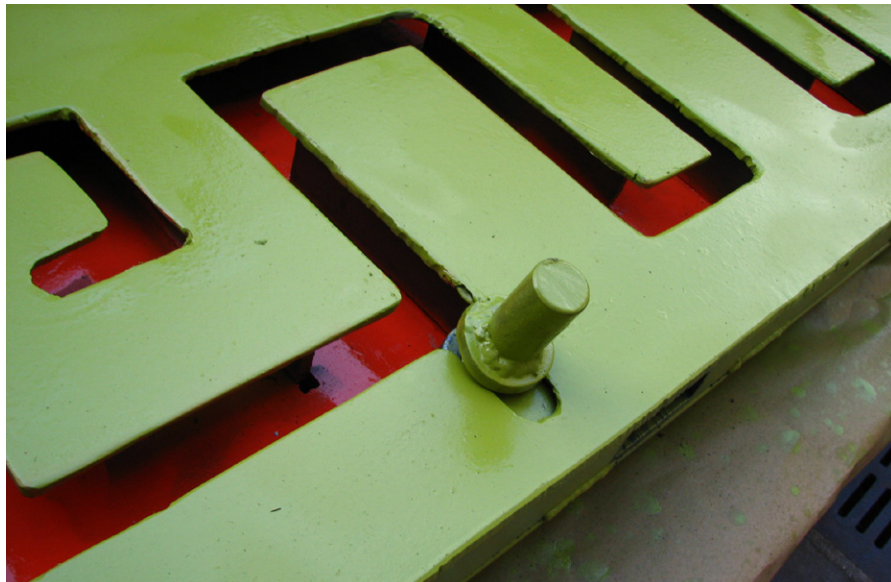
Surface preparation for painting by me

The making of the elephant spelling bee

welding and painting



I spray painted the back plate before welding and afterwards I repainted the whole toy to achieve a nice looking finish



Toy instalation: April 20 2012



we moved the toy into elephant's area and installed the chain by putting it thru the angle iron welded on the back



We hang the toy but the chain held by padlocks was a concern, Ruth and Emily could easily brake padlocks, so the chain was removed and instead the metal plates were welded to the back of the spelling bee and the toy was installed by bolts going thru the metal plates directly into the fence.



Toys for elephants Spring 2012

People involved in the making of the "elephant spelling bee":

Jay Shia, Ben Silva, Sean Maze, Rick Brown, Laura Brown, Missy Kemp, Holly Kelly, Ian Labich, Kevin Kilne, Nick Farnham



Ruth and Emily with the "elephant spelling bee"

