



Portfolio

Geoff Johnson

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"THE JOURNEY"

Whitney Curtin '08 - Thomas Evans '09

Bennett Geyer '08 - Geoff Johnson '07

Andrew Arcidiacono '07 - Kevin Corkery '07
James Passemato '07 - Alyson McLaughlin '07
Alex Morosco-Gursky '07 - Devin O'Rourke '08
Ben Haack '07 - Joe Tatum '07 - Henry Webbe '07
Faculty Advisor: Michael Hansel

This project was made possible
through the generosity of Estelle Rae Wolf GP '09
and the support of the St. George's School Art Club



Geoff Johnson

Mahatma Ghandi



Geoff Johnson

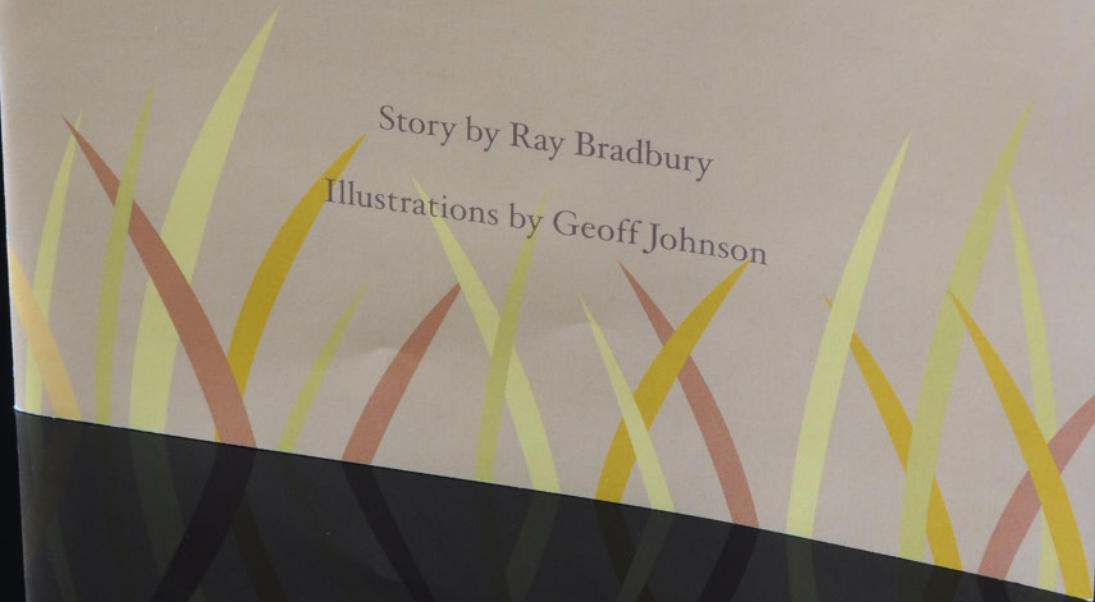
Horseshoe



The Veldt



Story by Ray Bradbury
Illustrations by Geoff Johnson



And then they heard the sounds.

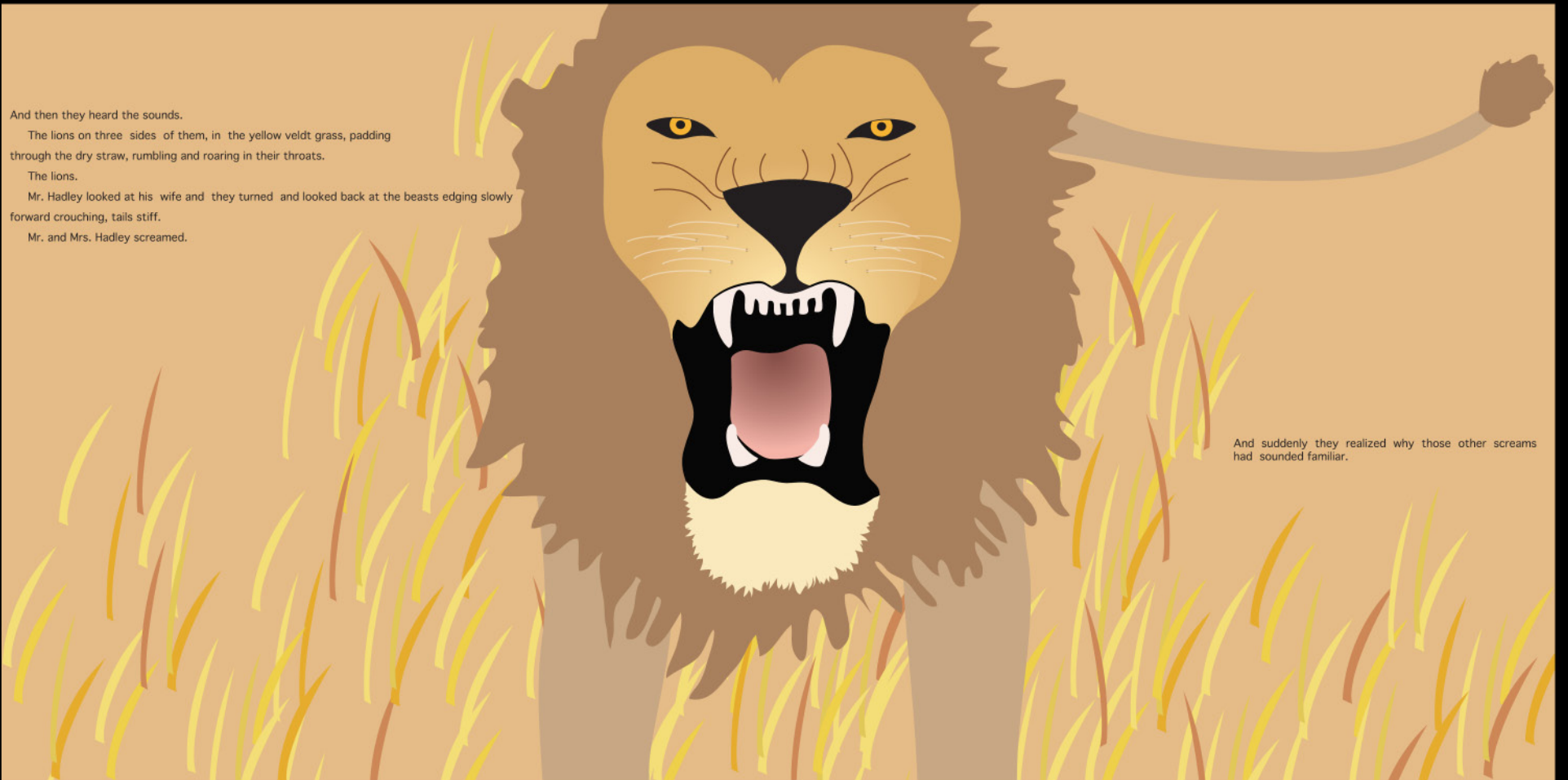
The lions on three sides of them, in the yellow veldt grass, padding through the dry straw, rumbling and roaring in their throats.

The lions.

Mr. Hadley looked at his wife and they turned and looked back at the beasts edging slowly forward crouching, tails stiff.

Mr. and Mrs. Hadley screamed.

And suddenly they realized why those other screams had sounded familiar.

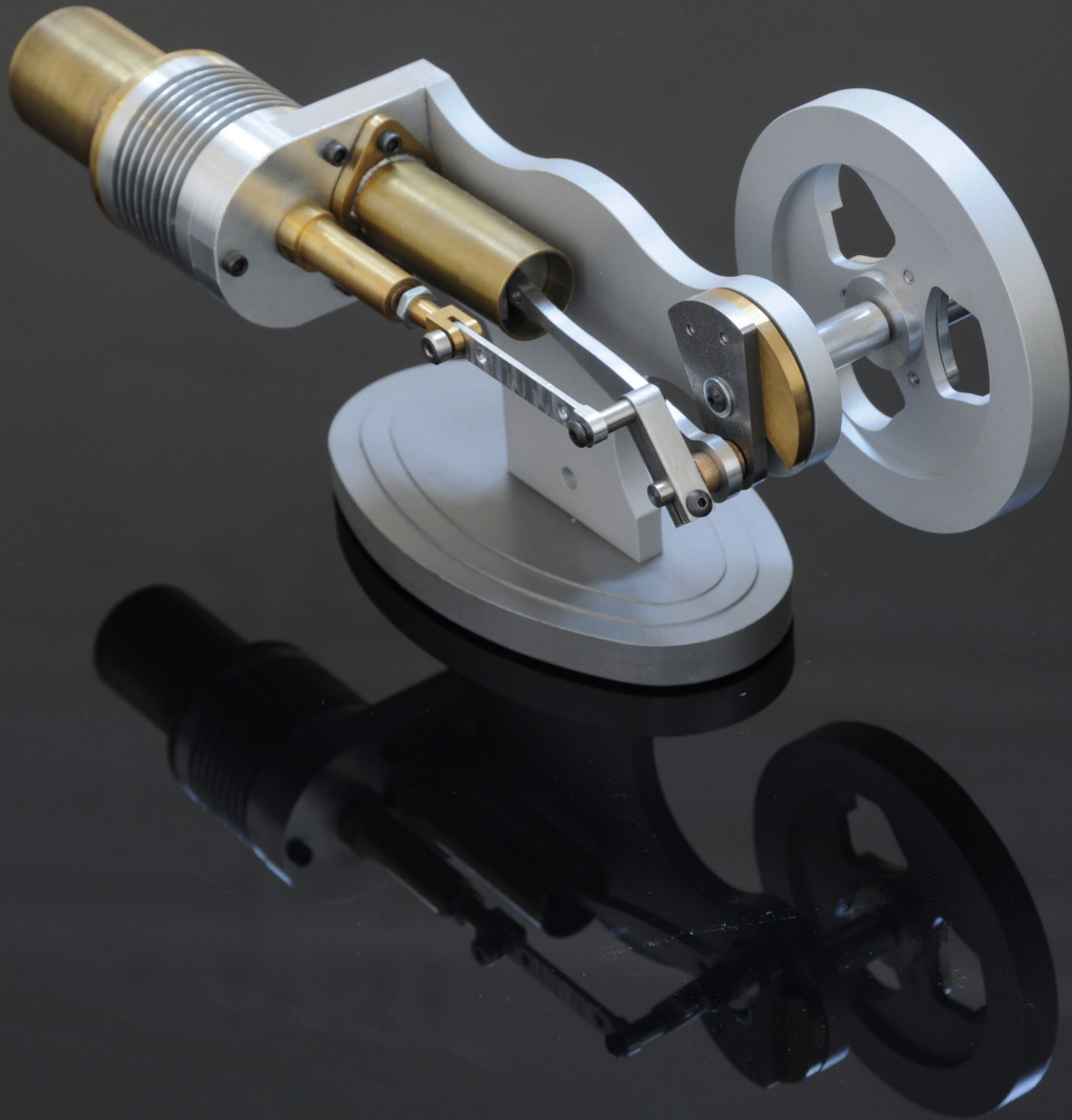


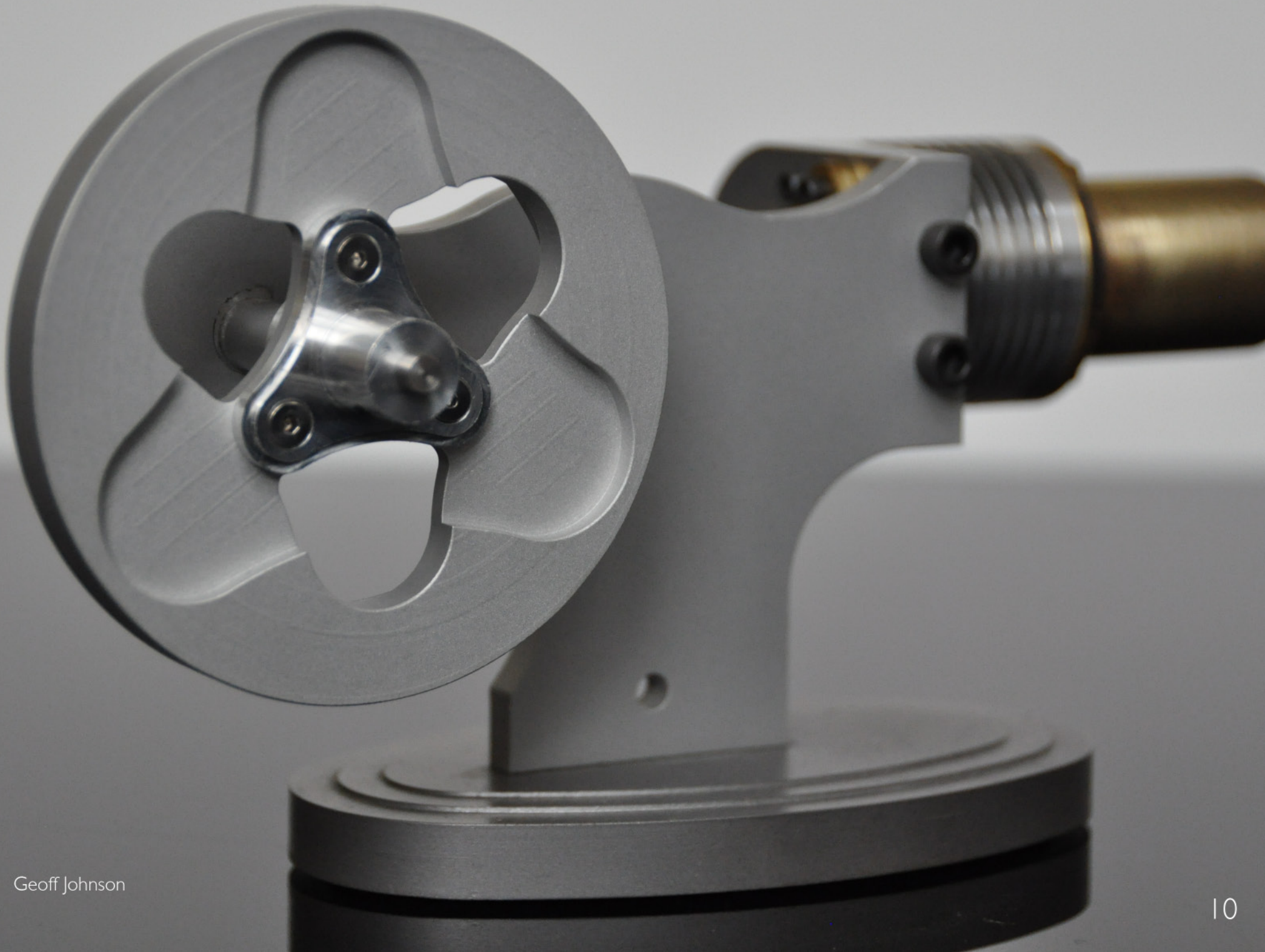
Glass





Stirling





Pepper



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Klein



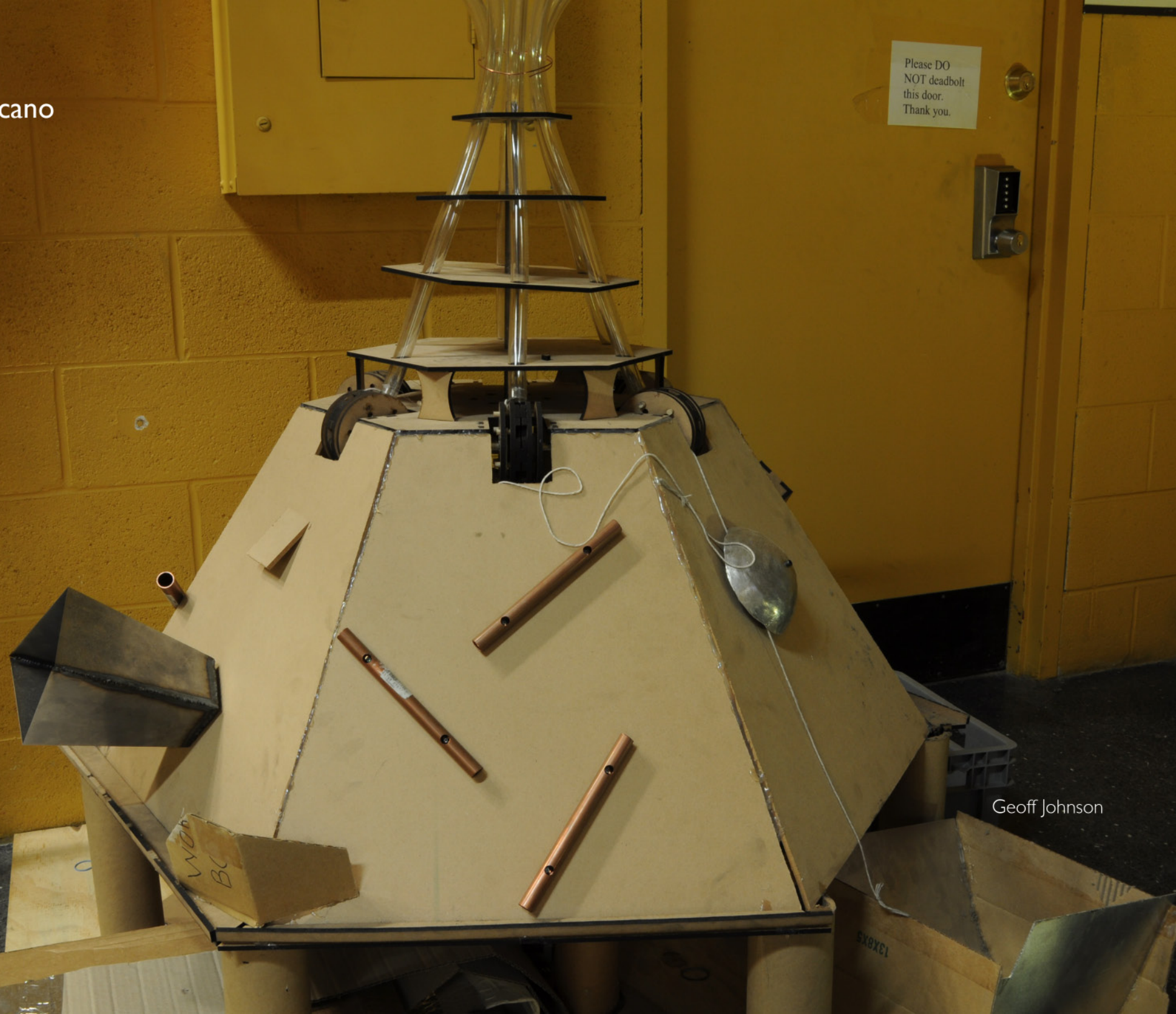
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UPS Truck





Volcano



Please DO NOT deadbolt this door. Thank you.

Geoff Johnson



Samples



Rocket





Geoff Johnson



eCheck



With eCheck its incredibly easy to pay for your meal. When you receive the device just follow the three simple steps.

1

PICK

Select your items from a list, even split items between multiple people



2

PAY

Swipe your credit card or slip your cash into the pouch



3

PASS

When you have paid, pass eCheck to the person next to you, or if you are the last one, make sure all the items are green and you are good to go!



Photo Appendix

1 & 2

The Journey is a 9 foot sculpture made of stainless steel plate over-top a steel frame. I created it with 4 other students at my high school during my senior year. The project took over 1000 hours to complete and was one of the most rewarding things I have ever built. It still stands today outside the art building in at my high school.

3 & 4

Both the Horseshoe and Ghandi were created my sophomore year for the course FNAR 264, digital design foundations. They are 8.5 x 11 and were created using Adobe Illustrator. I drew the pieces and then scanned in the images so I could trace over them in the program and create the vector images.

5 & 6

The Veldt is a short story by Ray Bradbury that I illustrated in the graphic design course FNAR 266. There are a total of 13 spreads that I created using Adobe Illustrator, Photoshop and InDesign. I then printed each spread and bound them together to create the book shown.

7 & 8

These pieces were created during the winter of my junior year. I spent 4 hours at a glass blowing studio in Boston and during that time created these two paperweights. Each one is the size of a fist and weighs close to 1 kilogram. The coloring inside is colored glass that was gathered over the first to create the encased effect.

9 & 10

In the summer between my sophomore and junior year I took MEAM 150, a course during which each student builds a closed cycle Stirling engine. I have tried to highlight not only the aesthetic qualities of the engine's design but also the sections that I had liberty to design; the main aspects are the base and flywheel. The engine is made of aluminum, steel and brass and is about 10 inches long by 4 inches high.

11

Pepper was created in the spring of my junior year for the course IPD 501. I modeled it first in Solidworks and then used SolidCAM to create the tool path files for the CNC milling machine. It was cut using the Haas CNC mill in the machine shop here. The pepper is made of 60 series aluminum and is just over 3 inches in length.

12

Klein was also created in IPD 501 and was meant to be a showcase for epically unmachinable objects. I chose the Klein bottle because its shape is beautiful and it easily fits the criteria for unmachinable. The bottle was 3D printed using the Dimension Elite machine and was then coated in resin, sanded and painted. It stands just over 4 inches tall.

13 & 14

The UPS truck was a group project created in the spring of my sophomore year for the course MEAM 247. The goal was to use 4 bar linkages to create a back door that would open in a small area. I designed the linkage using SolidWorks and then fabricated the members using the laser cutter. The final piece was made of foam core, MDF and metal slip pins.

15 & 16

The Volcano is a self automated music machine that was created during the course MEAM 511. It was a group project that demanded a machine be entirely mechanical and able to play music for 45 seconds. I designed the ball release mechanism which is shown in the right image. We used MDF to build the frame and assorted materials to make the instruments. The ball release would spin and steel ball bearings would fall onto the instruments staggered around the faces. The entire structure is about 4 feet in height.

17

This is a material sample holder that I created during the summer between my sophomore and junior year. I was granted the Jacob M Abel internship to work on redesigning the curriculum for MEAM 247. I personally tested all the samples using an Instron machine to test for ultimate tensile strength and then created this wood block to hold them. I also took video on each test which is available on the MEAM design website. The block is about 2 feet in length and 7 inches in depth, made of maple.

18 & 19 & 20

I designed and fabricated an apparatus for launching a carbon fiber and aluminum rocket which I also designed and manufactured. This work was done for the MEAM 247 water rocket lab. We were able to pressurize the rocket to over 160 PSI and launch it 25 meters. The base unit is made of 60 series aluminum and stainless steel. It has two ports, one for air and the other for the air pressure gauge. Water is loaded into the rocket engine through a top cap and the rocket is launched by spinning a release ring that is actuated by a bike brake cable. The rocket is 15 inches in length and 2 inches in diameter and weighs just 150 grams. Photograph 19 was taken just milliseconds after release of the rocket, with the water jet visible in the upper left hand corner of the image.

21 & 22

eCheck is a project I am currently working with two close friends of mine, Jason Halpern and Chris Xydis. The basic concept is creating a device for restaurant goers to easily pay for their meal at the table. I created the concept UI and have been designing the overall interaction aspects of the device as well as the coding for the software. We recently submitted to PennVention and hope to do very well.