

Innovation

OIDD614 – Session 4

Karl T. Ulrich

Course Topics

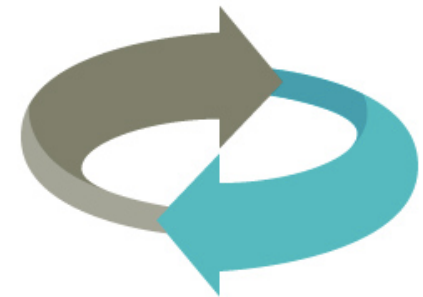
- What is innovation?
- Need pull vs. solution push
- Internal vs. external innovation
- Horizon 1, Horizon 2, and Horizon 3 innovation
- VIDE success model; $\text{value} = f(\text{idea}, \text{development}, \text{exogenous factors})$
- Opportunity identification
- Individual vs. group performance in idea generation
- Problem definition using "5 Whys"
- Innovation tournament structure
- Tournament performance levers: N, mean, variance, filter ratios
- Design thinking: observational methods, rapid prototyping, iterative refinement
- Concept exploration/development methods
- Whiteboard 101 (plus more optional visual expression tutorials)
- Branding and naming
- Valuing innovation projects
- Crowdfunding and open innovation
- How to pitch
- Culture of innovation
- Lean innovation/MVP, project planning
- (Project-specific content and methods.)

BLEND 8



URBANATI

Lingzini



terra pass

Some Freelancer Networks

- UpWork (by hour typically)
 - Freelancer.com (by job typically)
 - Guru.com (more U.S. providers)
 - Peopleperhour.com (some eclectic categories)
 - Toptal.com (vets candidates)
- (Check Quora for discussions on these and others.)

Accelerators (e.g., Y Combinator)
too many to list (see “top 15” article in Tech Crunch)

Example Specs at: <http://tinyurl.com/614-specs>

Hirenodes

Freelance Tips and Hacks

Freelancing

+2



Which are the best freelancing sites?

Answer

Request

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1

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100+ Answers



Breanden Beneschott, Freelanced in 17 countries in the last two years

13k Views

Originally Answered: What is the best web site to find freelance coders?

It depends on your technical expertise, price range, willingness to shovel through resumes, hiring timeline, and many other business and/or personal variables.

If you:

Need someone for a very simple side project: You should check out platforms like [Elance](#), [oDesk](#), [guru](#), etc. Unless you're planning on making the project into a business, you probably don't need a top-of-the-line developer and aren't on a tight deadline. These open marketplaces have tons of coders who will bid to work on your project, and you can find a developer for nearly any budget.

Need a serious developer and you have a technical background with a good eye for coding talent: The platforms mentioned above are possible solutions. Keep in mind that you'll have to be willing to deal with a lot of resumes and interviews. Be thorough in your vetting process so that you don't get stuck with a bad hire (tech projects are really risky; see [this](#) Harvard Business Review study for more) - you might want to start with a small test project.

Upvote 15

Downvote

Comments

2



Related Questions

What are the best sites to find high-quality freelance researchers, excluding IT sites?

What are the best freelancing sites out there?

What are the legitimate freelancing sites?

What are the best sites to meet freelancers other than software professionals?

What are the best freelance sites for finding consulting work?

Is there any freelancing site for beginners in coding?

What do you look for in a freelance job site?

What are the best websites for finding good freelance designers?

Which freelance sites are best for beginners, where there is less competition and easy to get jobs relative to other sites?

What is the best freelance website for beginners and why?

More Related Questions

Question Stats

314 Followers

79,170 Views

Last Asked Feb 29

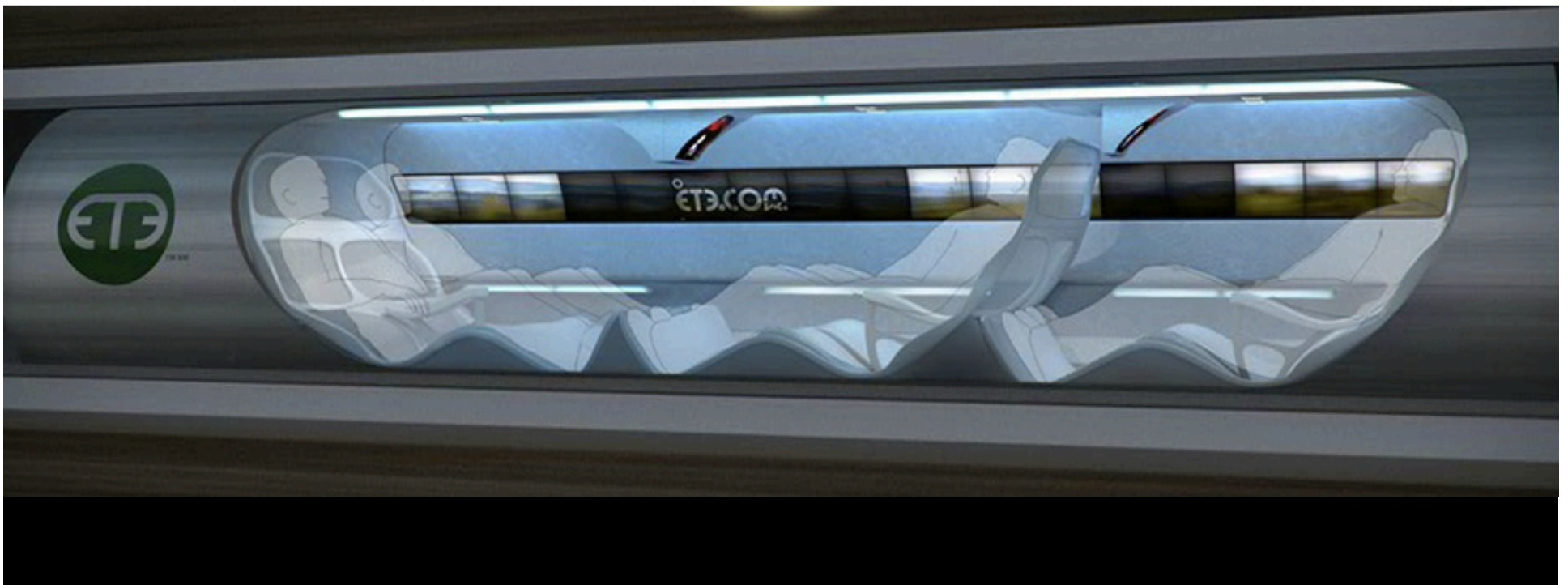
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X HYPERLOOP

POD COMPETITION

THE OFFICIAL SPACEX HYPERLOOP POD COMPETITION

[Watch archived Design Weekend webcast](#)

Since we first unveiled the idea for a new high-speed ground transport system called the [Hyperloop](#) back in 2013, there has been a tremendous amount of interest in the concept. We are excited that a handful of private companies have chosen to pursue this effort.

Neither SpaceX nor Elon Musk is affiliated with any Hyperloop companies. While we are not developing a commercial Hyperloop ourselves, we are interested in helping to accelerate development of a functional Hyperloop prototype.

Lean Start Up

http://en.wikipedia.org/wiki/Lean_startup

Eric Ries. 2011. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Business Publishing,

1. Minimum Viable Product (“MVP”)
 - “continuous deployment”
2. Sequencing of tasks.

Antecedents

- “Lean Manufacturing” – John Krafcik’s Sloan School thesis + International Motor Vehicle Research Program book “The Machine that Changed the World.” (Essentially a description of the *Toyota Production System*.)
- Ian MacMillan, Rita McGrath – Discovery Driven Planning
- Stephen Blank (Ries’ mentor) – entrepreneurship courses
- Terwiesch and Ulrich Chapter 8 – task sequencing



\$80 mm investment by Kleiner-Perkins, CSFB

Specifications:

- 12.5 mph
- 80 lbs
- 11 miles range
- \$9000
(consumer version \$4950)

Original volume projections:
40,000 units/month by end of 2002.

“I would stake my reputation, my money and my time on the fact that 10 years from now, this will be the way many people in many places get around. If all we end up with are a few billion-dollar niche markets, that would be a disappointment. It's not like our goal was just to put the golf-cart industry out of business”

– Dean Kamen

Timing of Key Problems Tackled by Segway LLC

\$50mm+
2000-2001

Technical performance

Production capacity

Reliability and robustness

Legality

Patents

Staffing a large organization

\$??
2002

Where to ride

Which markets

What price point

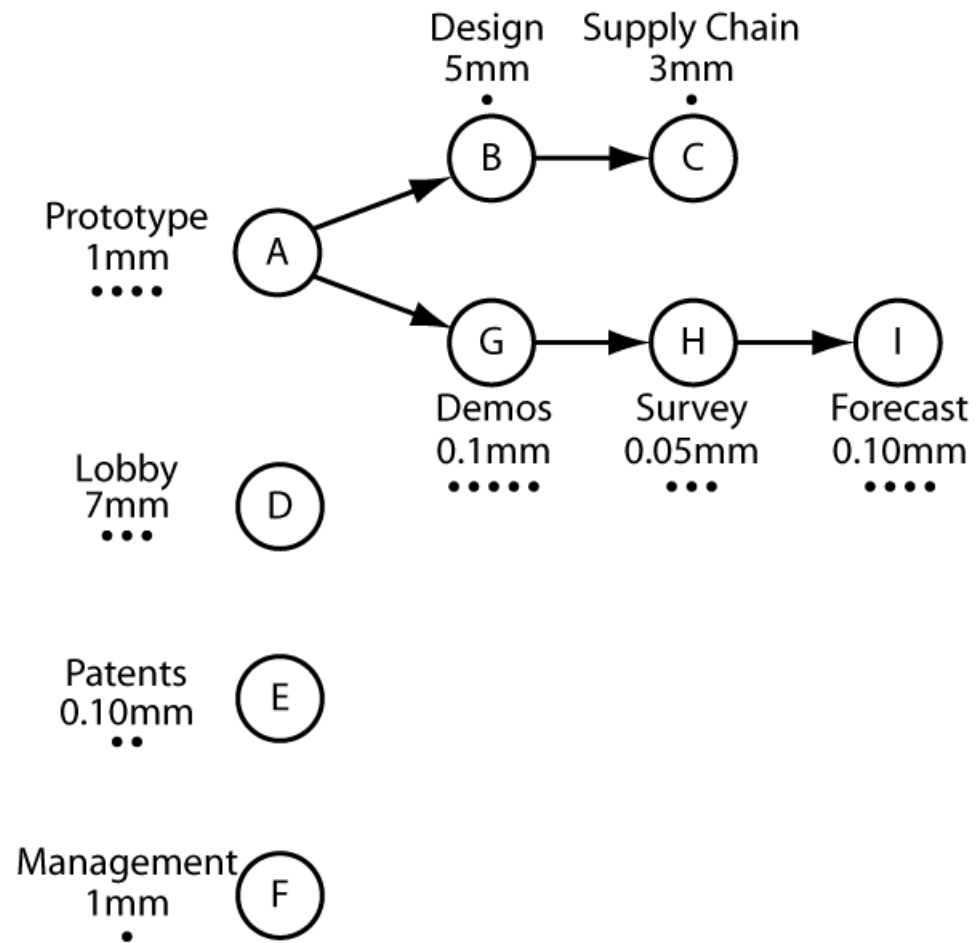
Demand forecast

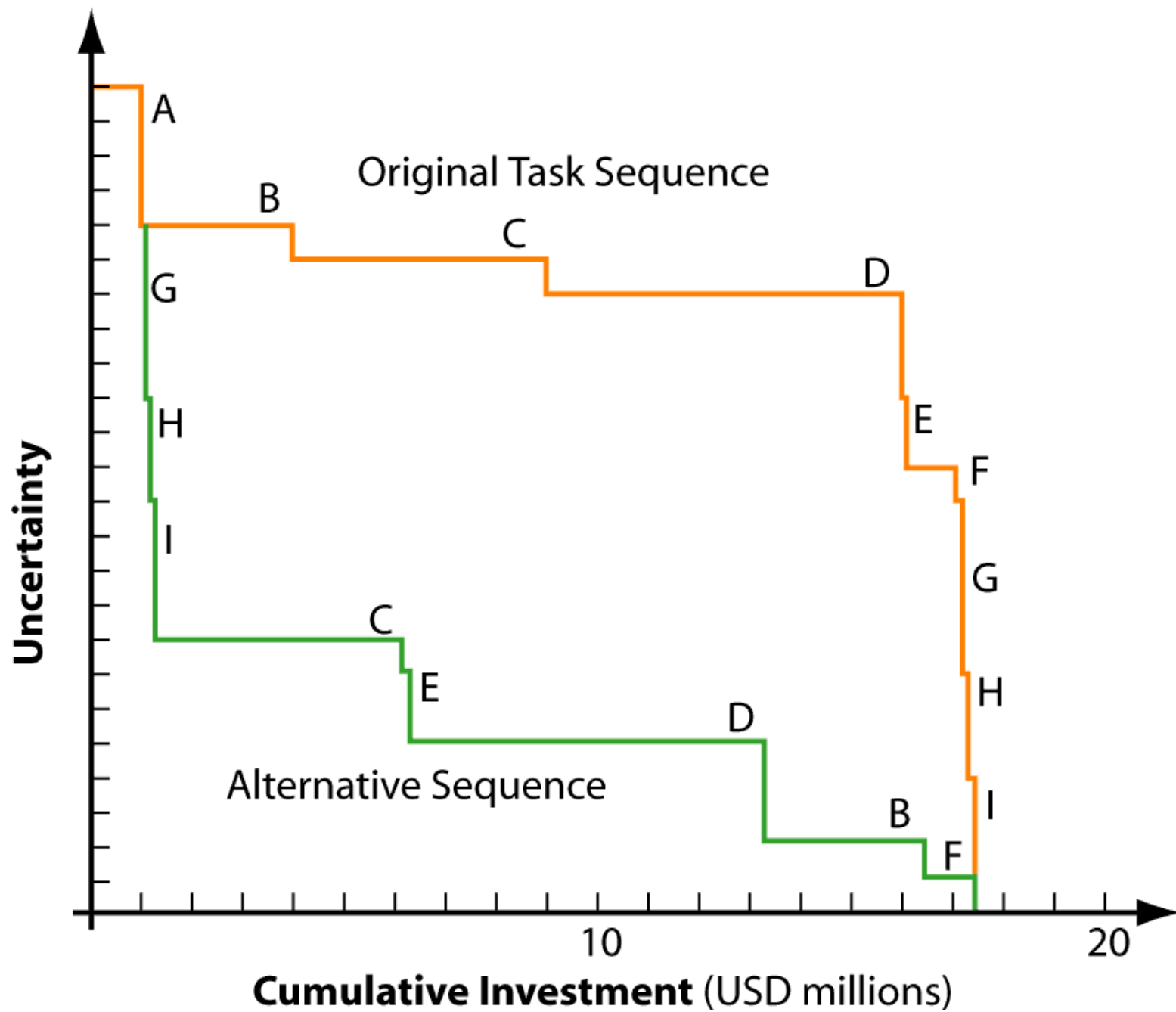
What benefits

	Task	Questions Addressed	Effect on Uncertainty	Cost of Task (USD)
A	Complete alpha prototype design, fabrication, and testing.	Will the technical performance of the product be acceptable?	• • • •	1 mm
B	Design supply chain and set up production facility.	Can we establish production capacity?	•	3 mm
C	Complete production-intent design, engineering refinement, life testing.	How reliable and robust can we make the product?	•	5 mm
D	Lobby for new legislation in state and local governments.	In how many states will it be legal to ride on the streets and sidewalks?	• • •	7 mm
E	File patents.	What is the extent of the intellectual property barrier?	• •	0.10 mm
F	Recruit full management team of new company.	Can we establish the structure and personnel to support a large enterprise?	•	1 mm (+0.50mm/ month)
G	Conduct customer interviews and demonstrations.	Which market segments will most resonate with the benefits of the product? What is the core benefit proposition for the product? Where will the user ride the product?	• • • • •	0.10 mm
H	Perform competitive product analysis, customer surveys, retailer surveys.	What should be the target price point?	• • •	0.05 mm
I	Complete diffusion modeling, historical comparisons, purchase intent survey.	What is likely to be the sales trajectory?	• • • •	0.10 mm

Source: Terwiesch and Ulrich, Innovation Tournaments, Chapter 8.

Tasks and Inherent Dependencies





Source: Terwiesch and Ulrich, Innovation Tournaments, Chapter 8.

Is Lean/MVP always the right approach?



Photo: Boeing via wikimedia

Y Combinator Posthaven

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Y Combinator

Not your average fixed point combinator.

ycombinator.com

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Posted 14 days ago

March 21, 2016 at 8:05 PM

2,511 views

Boom (YC W16) is Building an Affordable Supersonic Aircraft

by Steven Chan



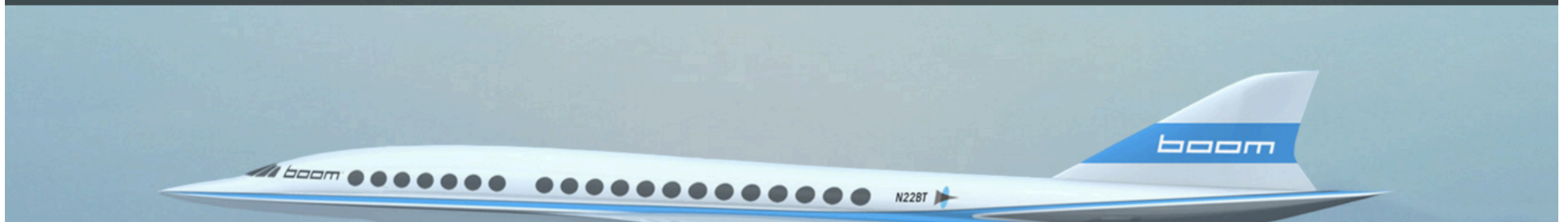
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Adventures in Ice Cream

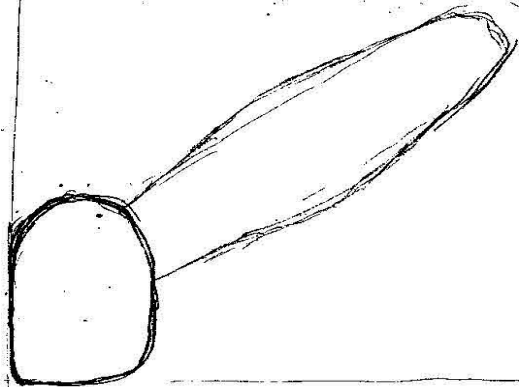






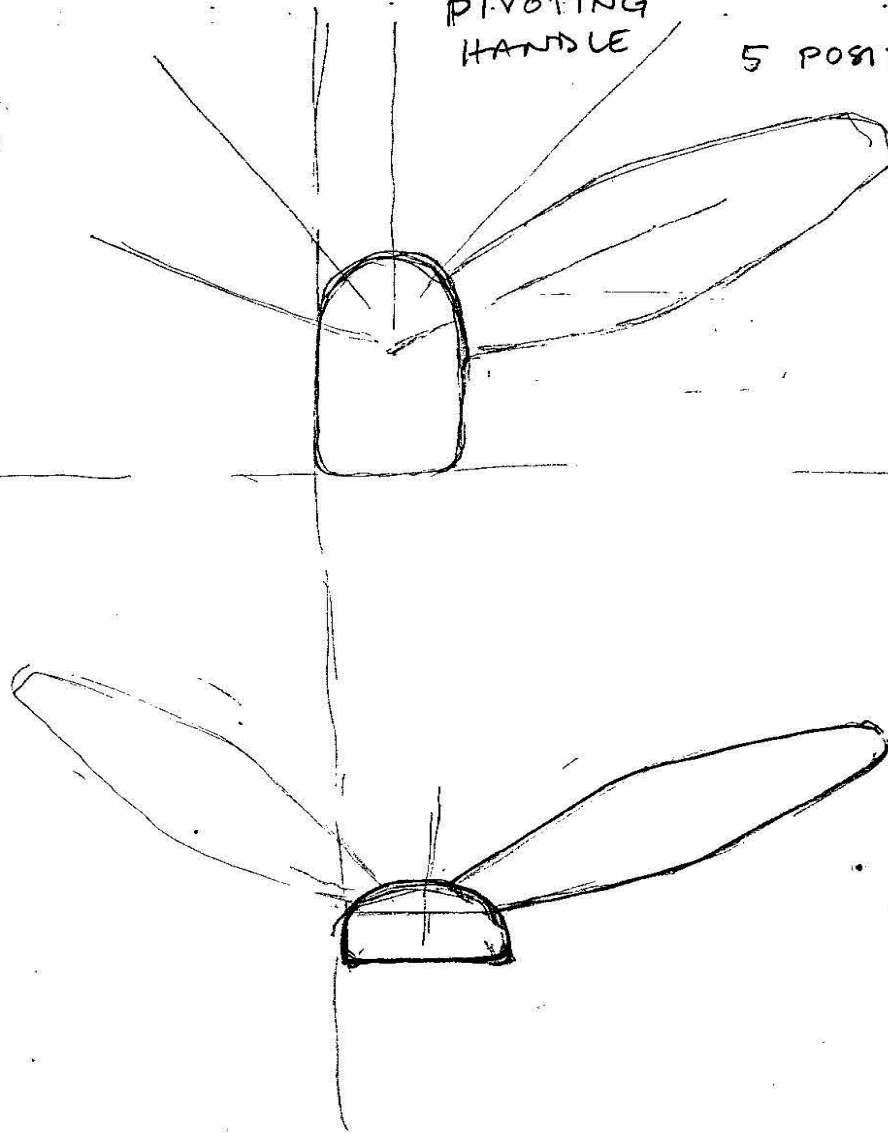


FIXED
OPTIMAL
→ HANDED

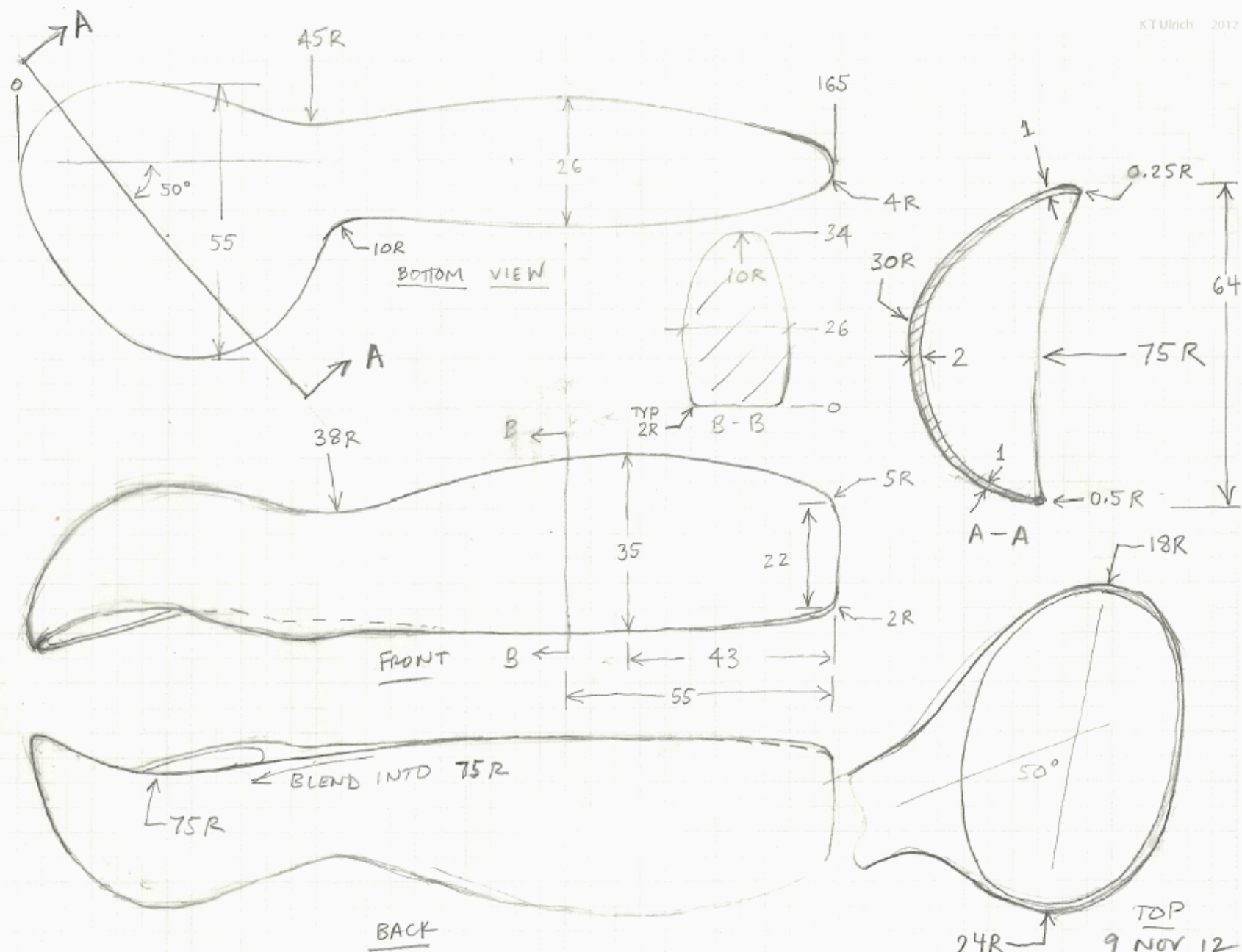


PIVOTING
HANDLE

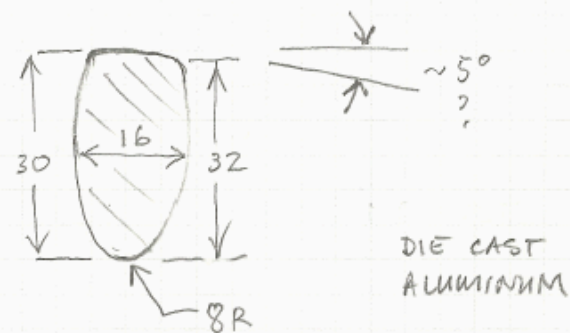
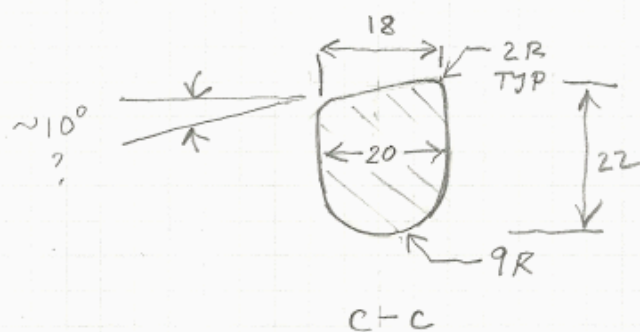
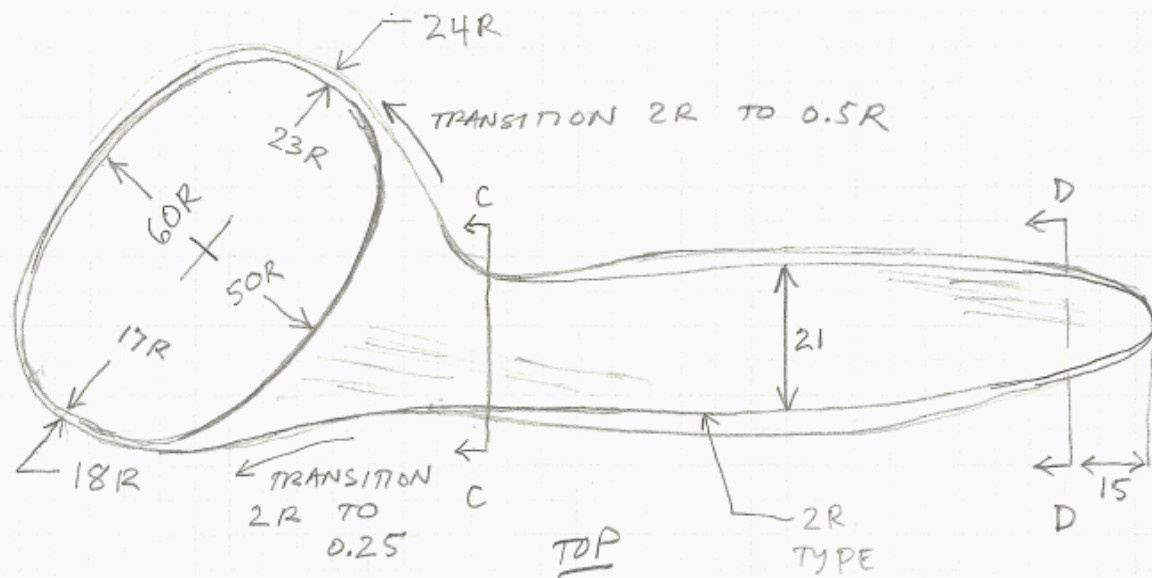
5 POSITIONS







TOP
9 NOV 12
K. ULRICH



9 NOV 12





Lunar Design joins us...



3D Printing (these are Fused Deposition Modeling – FDM)
Shapeways is one service provider.



CNC (computer numerical controlled) Machining –
first metal prototypes





Crowdfunding

- Indiegogo
- Kickstarter
- Wefunder

Get the scoop!

Tuesday, October 29th 2013

KICKSTARTER



KICKSTARTER

Discover

Start

Search projects

S

Belle-V Ice Cream Scoop

by Belle-V Kitchen

Home

Updates 11

Backers 1,289

Comments 58

San Francisco, CA

Product Design

Funded! This project was successfully funded on Dec 8.



1,289

backers

\$64,724

pledged of \$5,000 goal

0

seconds to go



Project by

Belle-V Kitchen
Chicago, IL

[Contact me](#)

K First created · 2 backed

(12) **United States Design Patent**
Ulrich et al.

(10) **Patent No.:** **US D713,219 S**
(45) **Date of Patent:** **★ Sep. 16, 2014**

(54) **ICE CREAM SCOOP**

(71) Applicant: **Belle-V, LLC**, Chicago, IL (US)

(72) Inventors: **Karl T. Ulrich**, Philadelphia, PA (US);
Jeffrey Allen Salazar, Palo Alto, CA (US); **Alan J. Cook**, Chicago, IL (US);
Jeff Smith, San Francisco, CA (US);
Kevin John Augustyniak, Elma, NY (US); **Gerard Furbershaw**, Menlo Park, CA (US); **Kenneth D. Wood**, Portola Valley, CA (US)

(73) Assignee: **Belle-V, LLC**, Chicago, IL (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/468,569**

(22) Filed: **Oct. 1, 2013**

(51) **LOC (10) CL** **07-99**

(52) **U.S. CL**
USPC **D7/681**

(58) **Field of Classification Search**

CPC **A47J 43/282**
USPC **D7/680-696, 368, 669, 395, 393;**
30/324-328; 425/187, 276-286, 299,
425/DIG. 13; 294/176-180

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D475,899 S * 6/2003 Ming-Shiue D7/681
D501,374 S * 2/2005 Crowley D7/681
D505,303 S * 5/2005 Crowley D7/681

* cited by examiner

Primary Examiner — Terry Wallace

(74) *Attorney, Agent, or Firm* — Michael J. Femal; Much Shelist

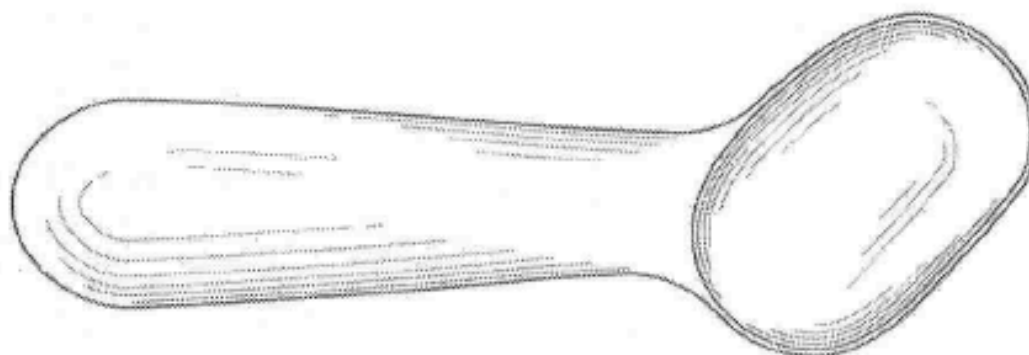
(57) **CLAIM**

The ornamental design for an ice cream scoop, as shown.

DESCRIPTION

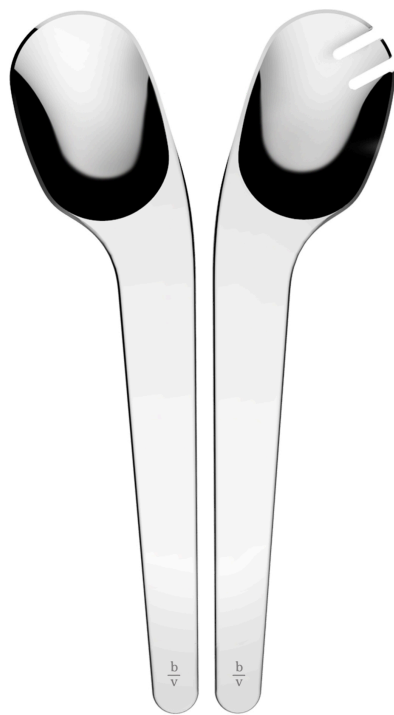
FIG. 1 is a perspective view of an ice cream scoop with a two piece handle showing our new design;
FIG. 2 is a right side elevation of the ice cream scoop of FIG. 1;
FIG. 3 is a left side elevation of the ice cream scoop of FIG. 1;
FIG. 4 is a top end view of the ice cream scoop of FIG. 1;
FIG. 5 is a bottom end view of the ice cream scoop of FIG. 1;
FIG. 6 is a top view of the ice cream scoop of FIG. 1; and
FIG. 7 is a bottom view of the ice cream scoop of FIG. 1.
FIG. 8 is a perspective view of an ice cream scoop of an unitary construction showing our new design;
FIG. 9 is a right side elevation of the ice cream scoop of FIG. 8;
FIG. 10 is a left side elevation of the ice cream scoop of FIG. 8;
FIG. 11 is a top end view of the ice cream scoop of FIG. 8;
FIG. 12 is a bottom end view of the ice cream scoop of FIG. 8;
FIG. 13 is a top view of the ice cream scoop of FIG. 8; and
FIG. 14 is a bottom view of the ice cream scoop of FIG. 8.

1 Claim, 6 Drawing Sheets










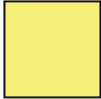















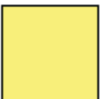













BELLE-V
KITCHEN



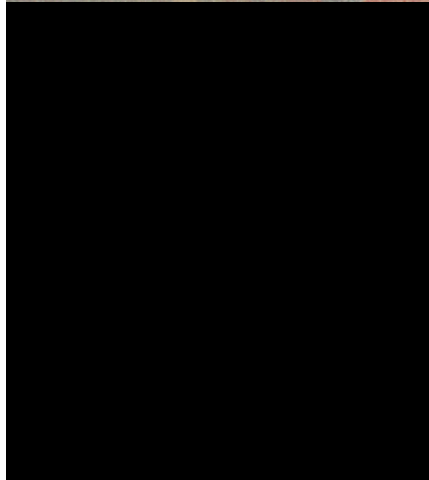
!!! Concept for discussion only !!!

Ownership Model

	Development				Operations					Cash	
	Idea	Proto	Design	Team	Activity	Mgmt	Sales	Mktg	Opns	Acctg	\$
Karl											
Alan											
Lunar											
Kevin											
Kim											
Trev											
Other	Review catagories, sum totals and %. Need to see if this makes sense										

Corporate





Belle-V



Silver | Kitchens | 2014

The Belle-V ice cream scoop is a solid aluminum scoop with a classic, ergonomic design that is made to last. The angled head works with the natural rolling action of a user's wrist to give maximum leverage to easily scoop the hardest ice cream. The spade-shaped edge helps users get into those hard-to-reach corners at the bottom of the ice cream container.

Designed by Jeff Salazar, IDSA, Karl Ulrich, Alan Cook, Gerard Furbershaw, Jeff Smith, Junggi Sung and Ken Wood of Belle-V

Contact: Naomi Kieser - naomi@lunar.com

Jerry Greenfield of *Ben & Jerry's*

be inspired,
discover new...
discover
design

2900
3000

gourmet food
cooking the

ucts

eat

explore

nest

seph
seph

2015
ALAN
BELLE - KITCHEN
EXHIBITOR

2015
JERRY
GREENFIELD
EXHIBITOR

2015
JERRY
GREENFIELD
EXHIBITOR

**Belle-V, LLC**

205 N. Michigan Ave
Suite 2940
Chicago, IL 60601 US
parks@belle-v.com
www.belle-v.com

BILL TO

Karl Ulrich
3740 Walnut Street, Suite 500
Philadelphia, PA 19104

SHIP TO

Karl Ulrich
3740 Walnut Street, Suite 500
Philadelphia, PA 19104

INVOICE 1087

DATE 09/03/2015 TERMS Net 30

DUE DATE 10/03/2015

SHIP DATE
09/03/2015

DATE	ACCOUNT SUMMARY	AMOUNT
05/31/2015	Balance Forward	\$3,280.00
	Payments and credits between 05/31/2015 and 09/03/2015	-3,280.00
	New charges (details below)	3,328.00
	Total Amount Due	\$3,328.00

ACTIVITY	QTY	RATE	AMOUNT
Scoop-Stainless-Right	64	22.00	1,408.00
Ice Cream Scoop STAINLESS RIGHT			
Bottle-Opener	96	20.00	1,920.00
Bottle Opener			

THANK YOU FOR YOUR BUSINESS! " ACCOUNTING QUESTIONS? CALL
OR EMAIL KIM PARKS AT PARKS@BELLE-V.COM OR (773) 301-8982.

**TOTAL OF NEW
CHARGES**

3,328.00

TOTAL DUE

\$3,328.00

Ulrich