Press Training - How to Pitch

6.S063 Engineering Interaction Technologies

Prof. Stefanie Mueller | HCI Engineering Group

who every gave an interview?
an article written in the press about a project?

<raise your hand>

what are some **tech outlets / magazines** you read?

<30sec brainstorming>

what are some tech outlets / magazines you read?

- New Scientist
- MIT Technology Review
- Gizmodo
- Wired
- MAKE magazine
- Creative Applications

the moment you see an article about it,
the invention is already several years old:

- from idea to submitted paper ca. 12 months
- from submission to acceptance: min. 6 months (can be years)
- press comes afterwards
- so idea is already 2 years old when you hear about it for the first time
- don't jump on sth that was just announced in the news because **you are already too late** (e.g. Kinect)

-> read research papers, talk to friends

how to pick a product name

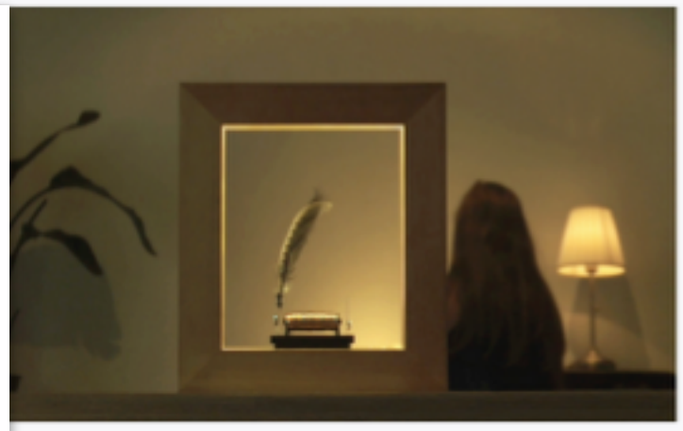
laser cutter

any thoughts
on the name and tagline?

<30 sec brainstorming>

big sigh from an expert stand point
but great for customers / marketing

HoloLens:



almost every product has a name + tagline.
what are other product names that come to your mind?
are they good or bad? why?

<30 sec brainstorming>

how would you **name your project?**

what would be **its tagline?**

<2 min in teams>

let’s look at some **examples**
and discuss if they are good/bad

(these are research papers, but same principles apply)

Sauron: Embedded Single-Camera Sensing of Printed Physical User Interfaces

thoughts?

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ABSTRACT
3D printers enable designers and makers to rapidly produce physical models of future products. Today these physical prototypes are mostly *passive*. Our research goal is to enable users to turn models produced on commodity 3D printers into interactive objects with a minimum of required assembly or instrumentation. We present Sauron, an embedded machine vision-based system for sensing human input on physical controls like buttons, sliders, and joysticks. With Sauron, designers attach a single camera with integrated ring light to a printed prototype. This camera observes the interior portions of input components to determine their state. In many prototypes, input components may be occluded or outside the viewing frustum of a single camera. We introduce algorithms that generate internal geometry and calculate mirror placements to redirect input motion into the visible camera area. To

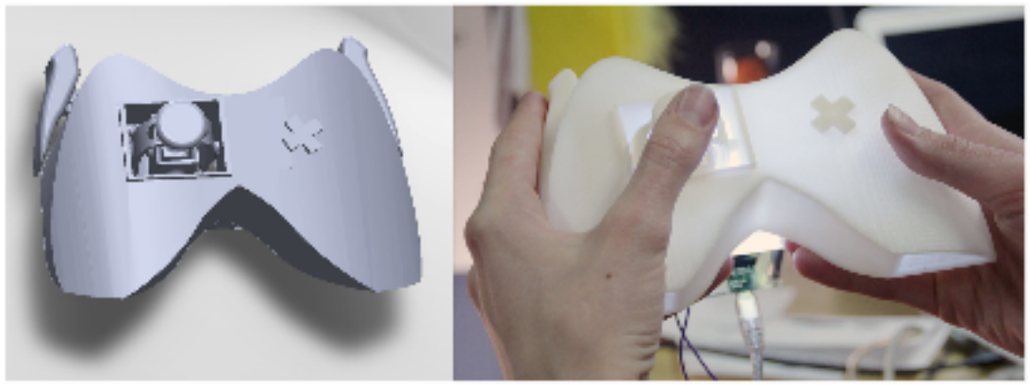

Figure 1. With Sauron, designers create a 3D CAD model of an input device and place a virtual camera in the model. Once printed, they attach a matching physical camera to sense user input on the device.

smart phones has led to a rise in touchscreen applications, retaining physicality has important benefits such as tactile feedback and high performance manipulation [11]. For example,

- hard to google, as lord of the rings is very famous
- if you have not seen the movie, you don't know what this is

faBrickation: Fast 3D Printing of Functional Objects by Integrating Construction Kit Building Blocks

Stefanie Mueller, Tobias Mohr, Kerstin Guenther, Johannes Frohnhofen, Patrick Baudisch
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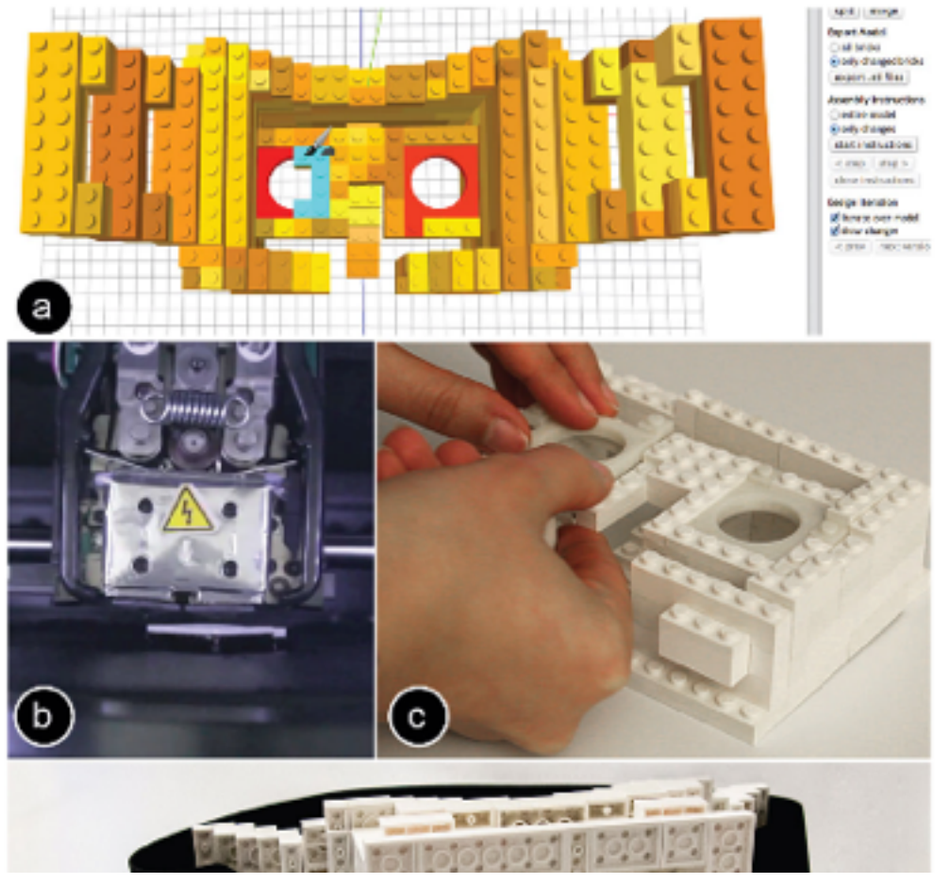
thoughts?

ABSTRACT
We present a new approach to rapid prototyping of functional objects, such as the body of a head-mounted display. The key idea is to save 3D printing time by automatically substituting sub-volumes with standard building blocks—in our case Lego bricks. When making the body for a head-mounted display, for example, getting the optical path right is paramount. Users thus mark the lens mounts as "high-resolution" to indicate that these should later be 3D printed. faBrickator then 3D prints these parts. It also generates instructions that show users how to create everything else from Lego bricks. If users iterate on the design later, faBrickator offers even greater benefit as it allows re-printing only the elements that changed. We validated our system at the example of three 3D models of functional objects. On average, our system fabricates objects 2.44 times faster than traditional 3D printing while requiring only 14 minutes of manual assembly.

Author Keywords: rapid prototyping; 3D printing; design iteration; building blocks; physical prototyping.



- when you say it, people hear 'fabrication'
- auto-correction in google

LaserOrigami: Laser-Cutting 3D Objects

thoughts?

Stefanie Mueller, Bastian Kruck, and Patrick Baudisch
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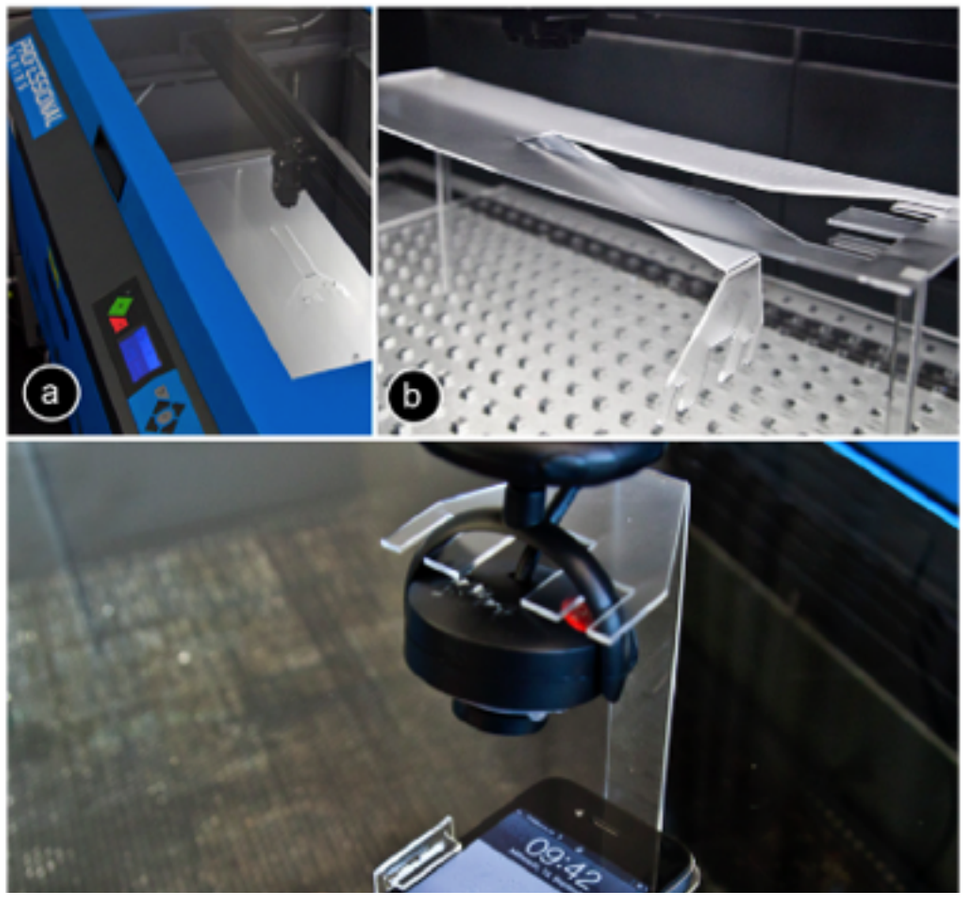
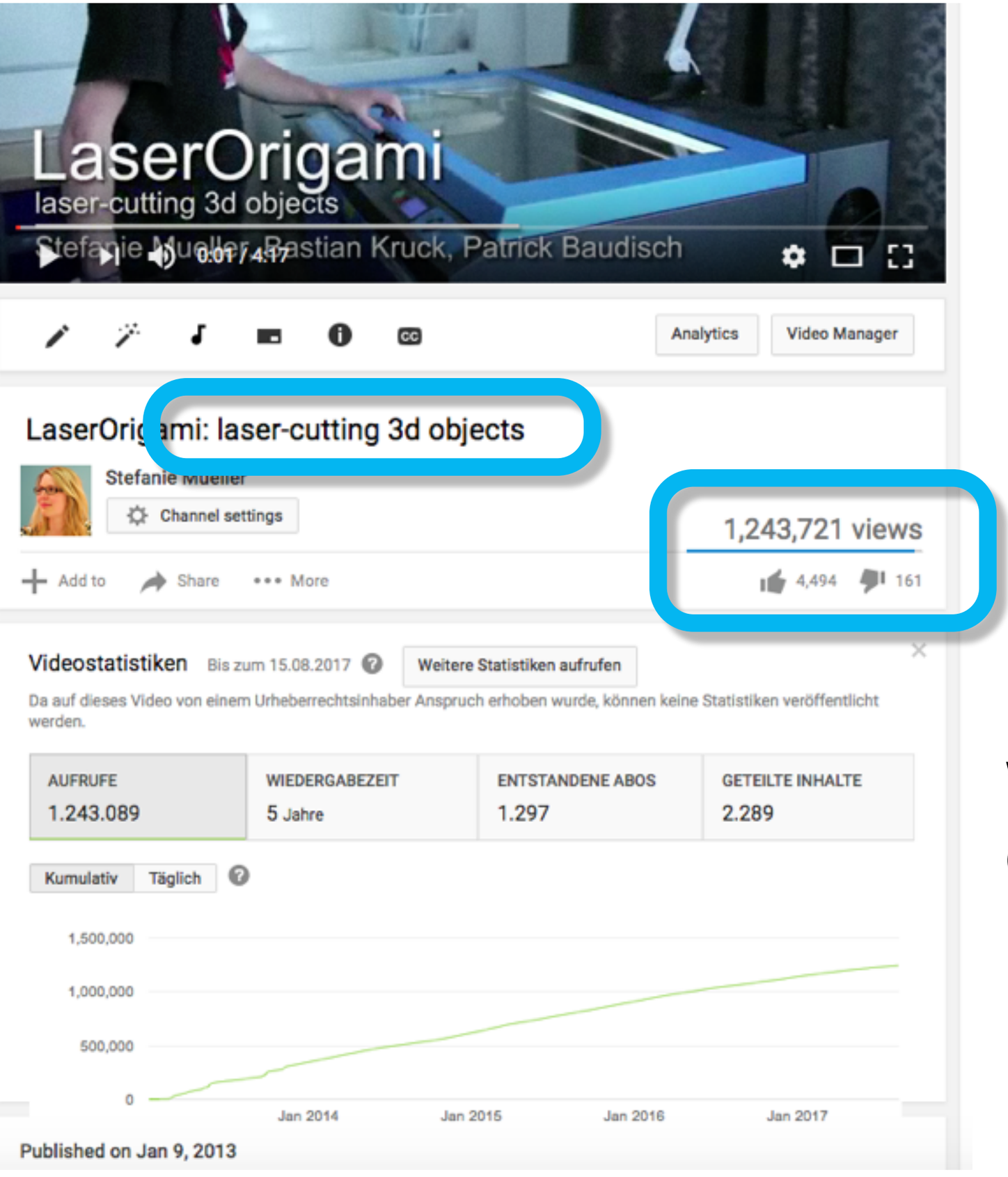
{stefanie.mueller, bastian.kruck, patrick.baudisch}@hpi.uni-potsdam.de

ABSTRACT
We present LaserOrigami, a rapid prototyping system that produces 3D objects using a laser cutter. LaserOrigami is substantially faster than traditional 3D fabrication techniques such as 3D printing and unlike traditional laser cutting the resulting 3D objects require no manual assembly. The key idea behind LaserOrigami is that it achieves three-dimensionality by folding and stretching the workpiece, rather than by placing joints, thereby eliminating the need for manual assembly. LaserOrigami achieves this by heating up selected regions of the workpiece until they become compliant and bend down under the force of gravity. LaserOrigami administers the heat by defocusing the laser, which distributes the laser's power across a larger surface. LaserOrigami implements cutting and bending in a single integrated process by automatically moving the cutting table up and down—when users take out the workpiece, it is already fully assembled. We present the three main design elements of LaserOrigami: the bend, the suspender, and the stretch, and demonstrate how to use them to



- overclaiming
- (was not on purpose, just fully realized later : /)



overclaiming though sometimes gets you a lot of attention

laser cutting 3D objects?
WHAAATTT?

(of course not possible right now)

but people might leave disappointed…

your project name will be **used a lot!**

every time **you** talk about it +
every time **anyone** talks about it (press))

Ideally, it **pitches the entire project**
allows people to guess **what it does + benefits**

the good and the not so great press articles

DAILY NEWS 8 February 2016

3D-printed display lets blind people explore images by touch

By **Paul Marks**

Blind and partially sighted people often use tactile displays to interact with computers. These raised sets of Braille-

DAILY NEWS 6 November 2015

3D print extra bits for old objects to help extend their life

Patch it up

A similar project from Stefanie Mueller and her colleagues at the Hasso Plattner Institute in Potsdam, Germany, takes the idea a step further. As well as adding to existing objects, it can mill away redundant sections of an object, then print an updated design in its place.

Mueller's team has used the system to print a new mounting for a smartphone when the old one broke, and to change the mount to fit a larger phone when the phone was upgraded.

"3D printing is on the verge of becoming a mass-market," says Mueller. Technology analysis company Gartner estimates that about 250,000 consumer printers will be sold in 2015, up from just 35,000 in 2012, but projects that more than a million will be sold in 2017.

Repairing and augmenting, rather than printing a whole new object, saves material and energy. "Since only a fraction of the entire object is refabricated, our approach reduces material consumption and plastic waste," Mueller and her colleagues write in a paper due to be presented next week at Symposium on User Interface Software and Technology (UIST) in Charlotte, North Carolina.

"Everyone will own a 3D printer in the future, once we have solved the challenges," says Mueller. "While we are very excited about this future evolution, we are also worried about the potential implications on society, such as sustainability.

Beam me up Scotty: German scientists invent working teleporter of sorts

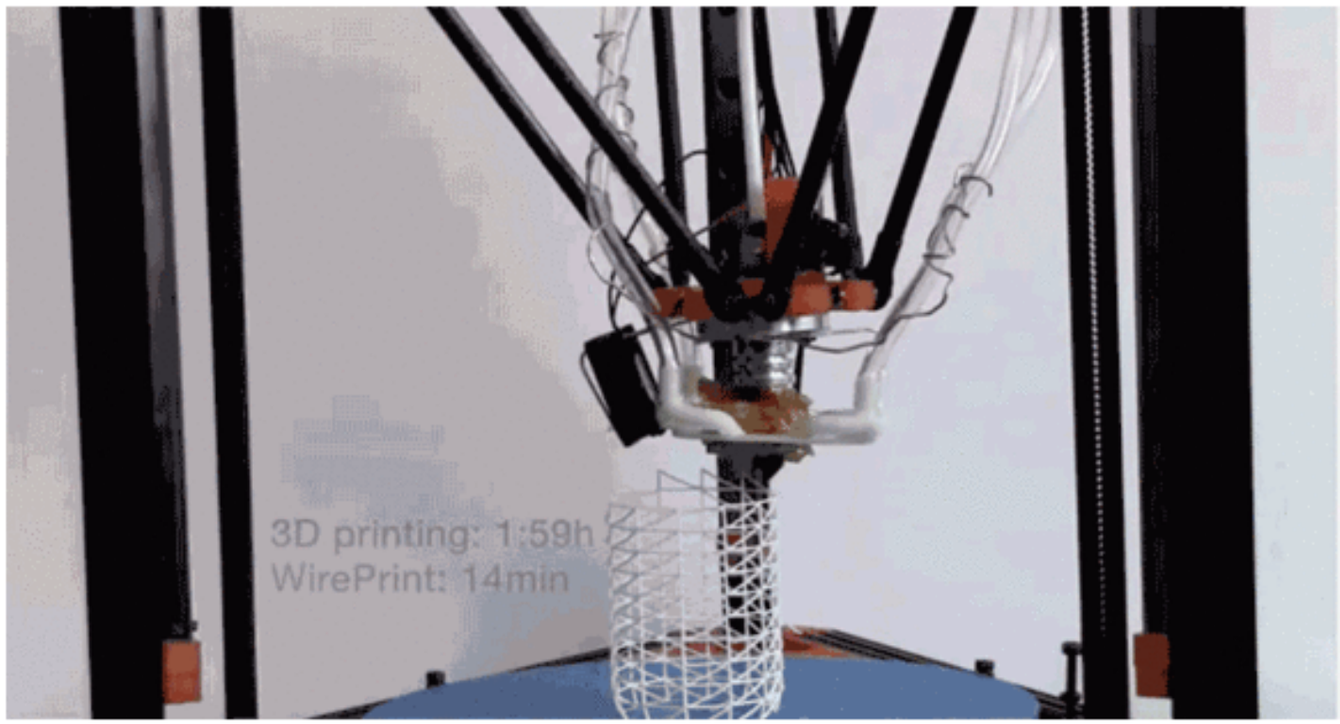
New system destructively scans objects transmits them through encrypted communications across any distance and rebuilds it the other side

Star Trek's transporter sold the idea of teleportation to the masses, but now German scientists have invented a real-life working system that 'teleports' objects from one location to another using 3D printers. Photograph: Allstar/Cinetext/Paramount

Teleportation has been the holy grail of transport for decades, ever since Mr Scott first beamed up Captain Kirk and his crew in the 1966 opening episode of Star

COOL 3-D PRINTING SOFTWARE JUST MAKES THE SKELETONS OF YOUR STUFF

tone



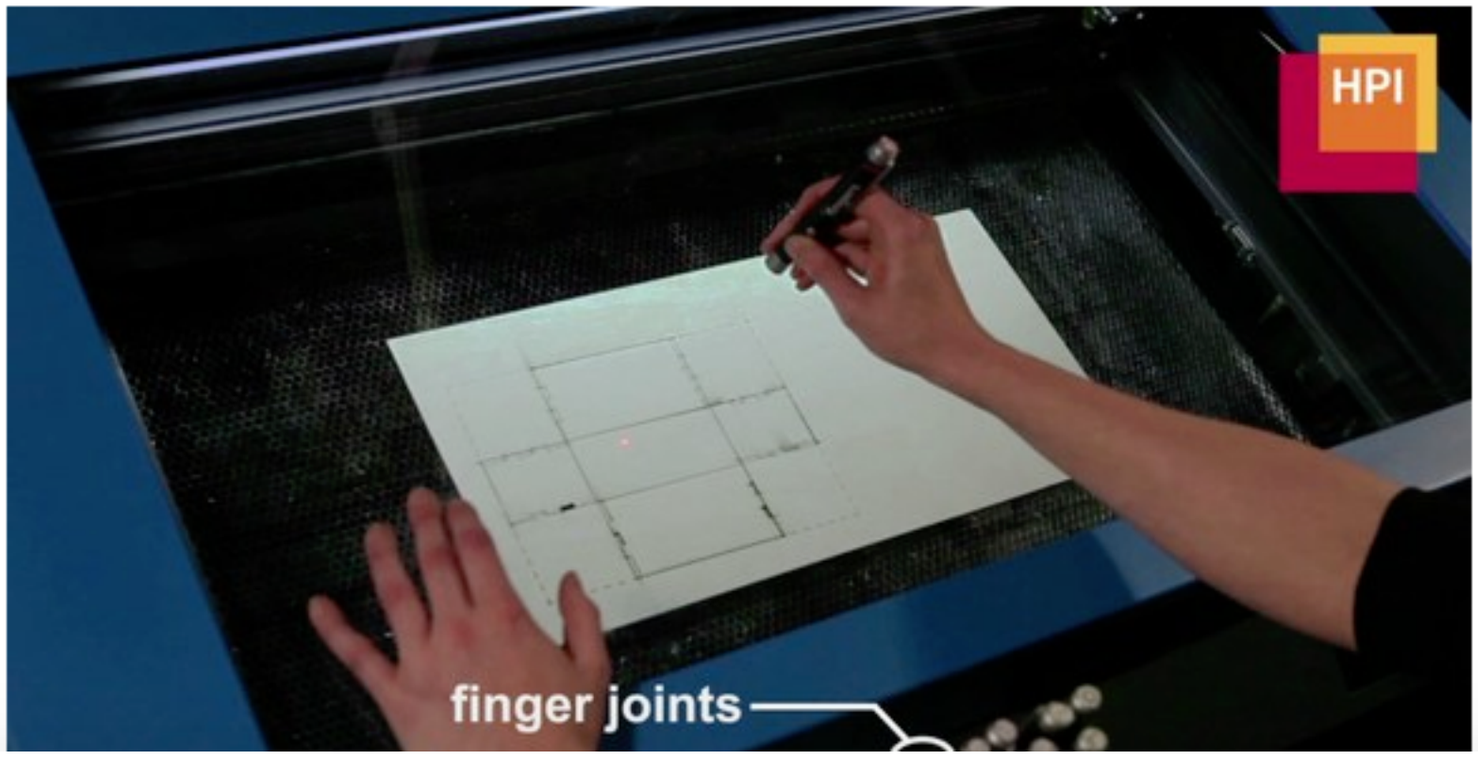
WirePrint in action. SOURCE/WIRED DESIGN

SEEING A 3-D printer in action for the first time can be kind of disappointing. Objects don't just materialize instantly like you might expect. Instead, they get pooped out layer by

TIM MALY DESIGN 11.01.12 12:27 PM

WHITTLING WITH LASERS: CONSTRUCTABLE BRINGS HANDHELD 'PEW PEW' POWER TO YOUR WORKSHOP

tone



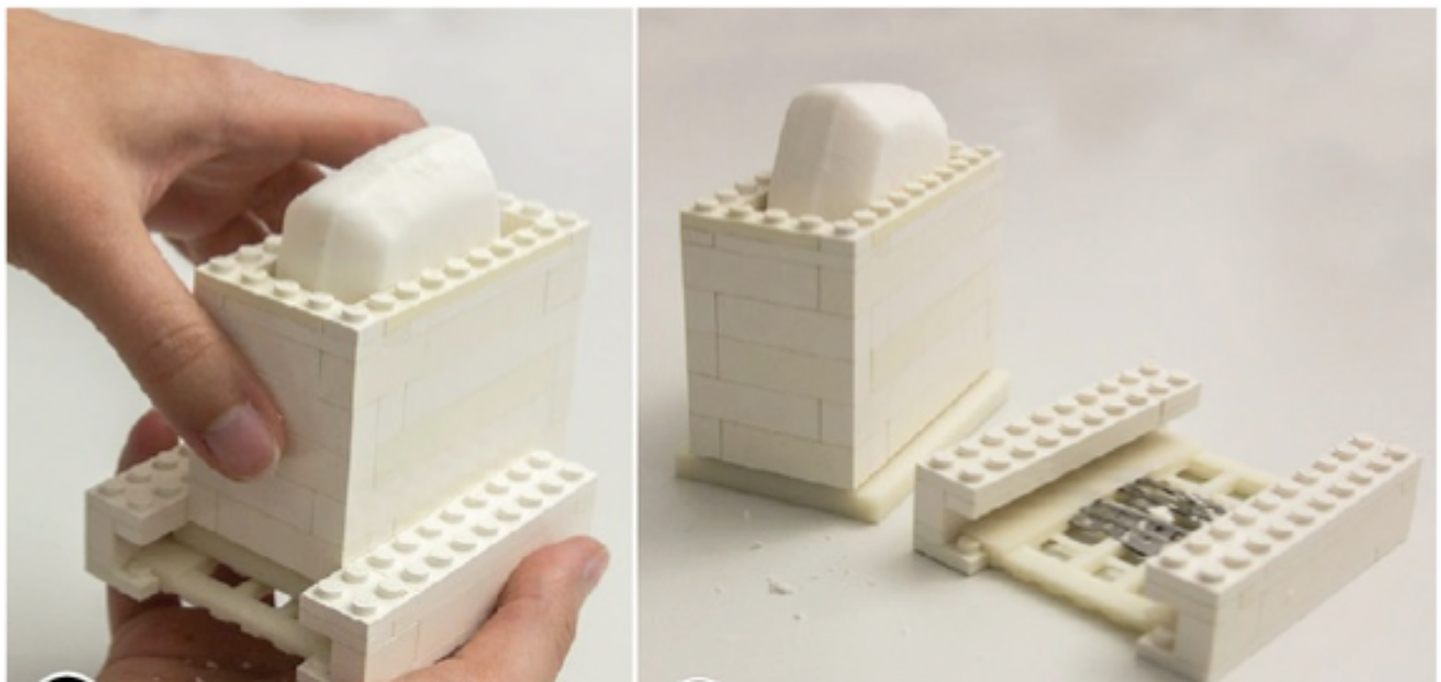
Using a laser pointer, the user sets up a Constructable cut.

PHOTO: HASSO PLATTNER INSTITUTE

3D Printing and Legos: Perfect Together

New software allows designers to "legofy" their prototypes, eliminating hours of time spent waiting for 3D printers to churn out their widgets.

REBECCA J. ROSEN | JAN 22, 2014 | TECHNOLOGY



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Laser Origami

One of the highlights from the Computer Human Interaction conference recently in Paris was laser origami. Among the delegates showing off the latest in interfaces and gesture control was a group demonstrating…

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18 minutes

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know who’s the audience

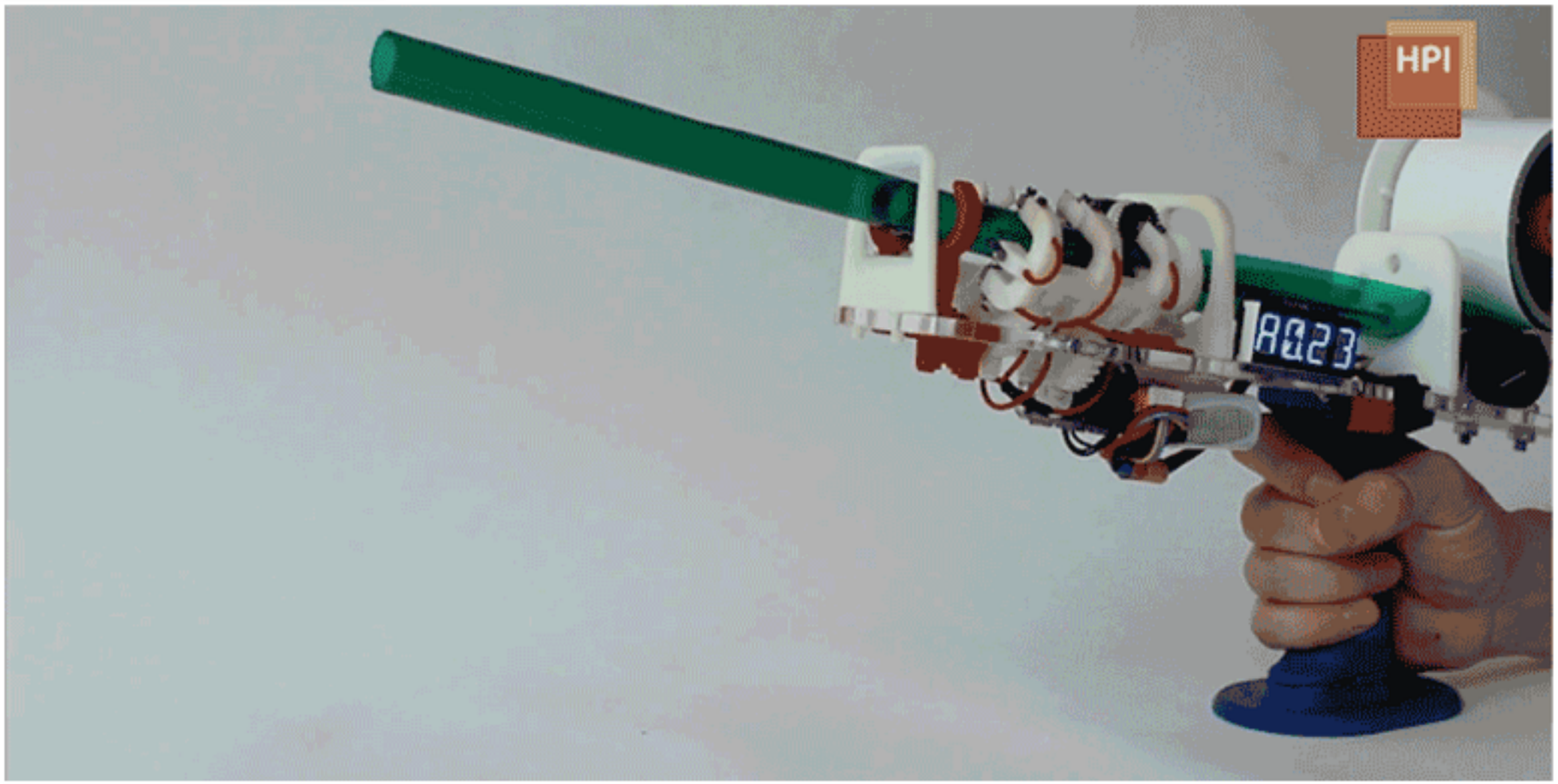
An Upgraded Tape Gun Lets You Quickly Build Life-Size Wireframe Prototypes

one of my favorite journalists

Andrew Liszewski

10/26/15 12:30pm • Filed : RESEARCH

91.6K 51 11

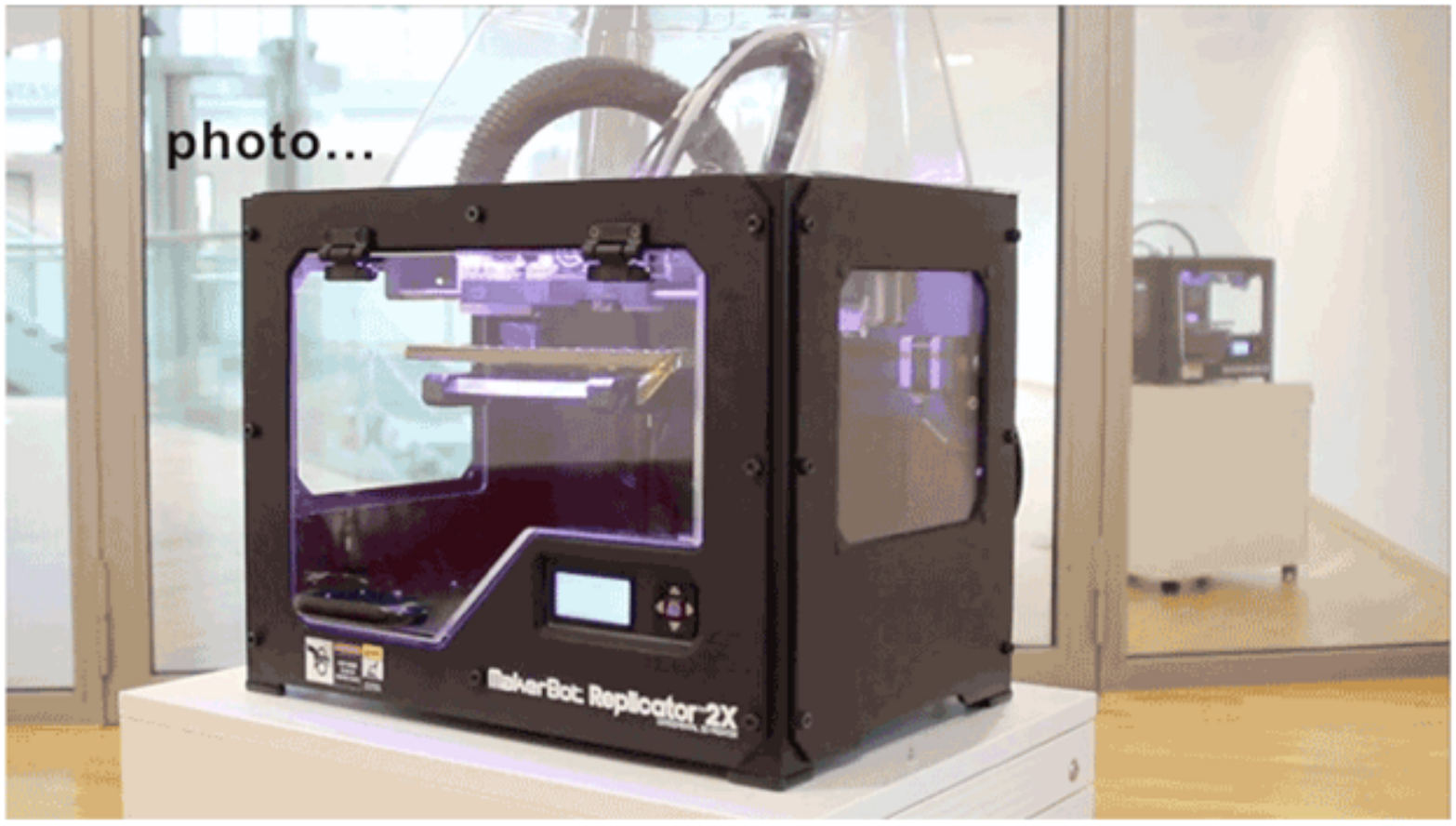


How many times have you battled a tape measure to try and figure out a if new

This Destructive 3D Printer Is the Closest We've Come to Teleportation

keep good contacts!
I send him material again..

Andrew Liszewski
1/22/15 8:32am • Filed to: ESEARCH

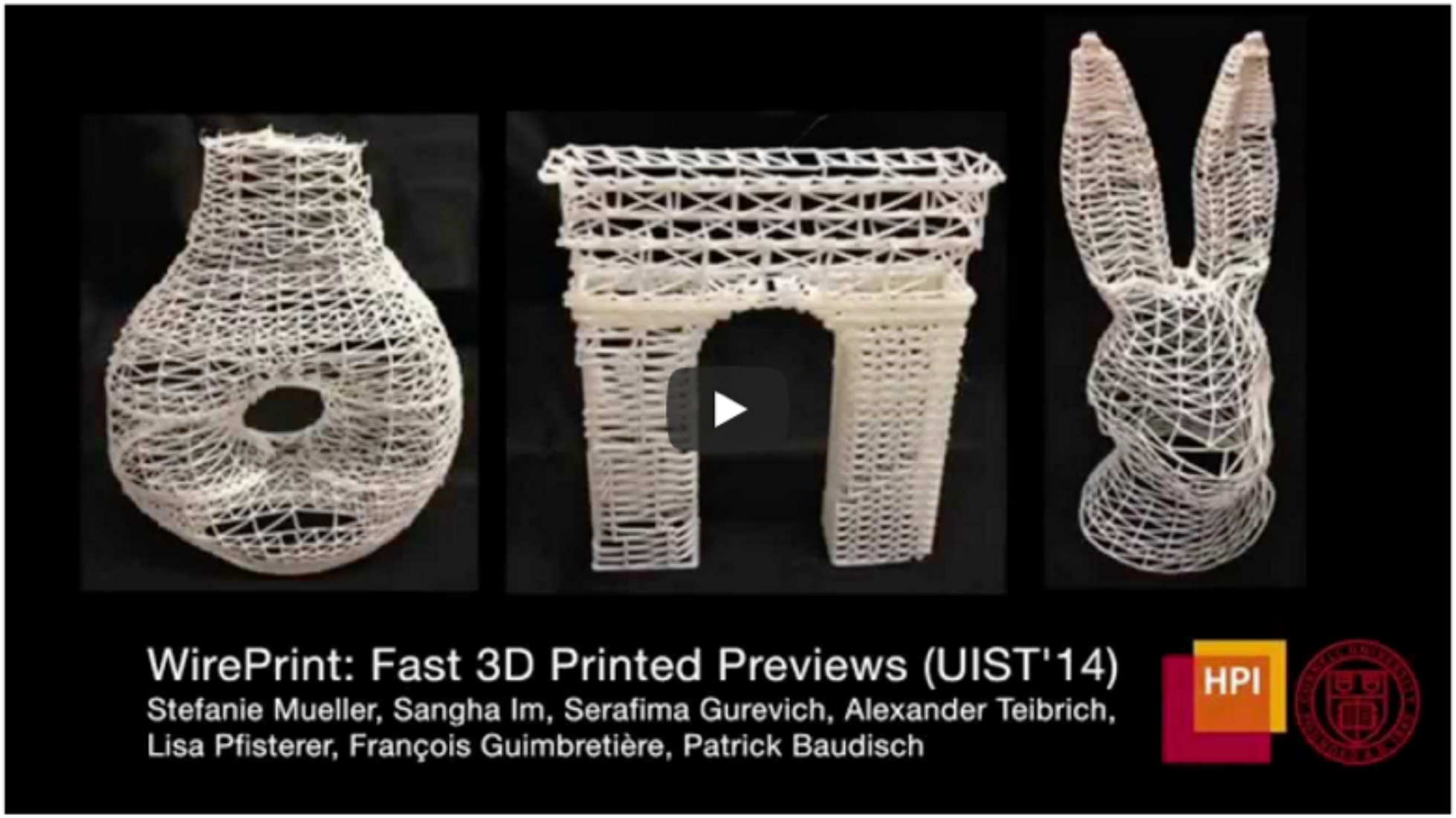


Many equate the 3D printer as being the earliest form of a real-life teleporter—or transporter, if you prefer to get your science from *Star Trek*. The only problem

3D Printing Just Wireframe Models Can Vastly Speed Up Prototyping

Andrew Liszewski
9/19/14 11:15am • Filed to: 3D PRINTING

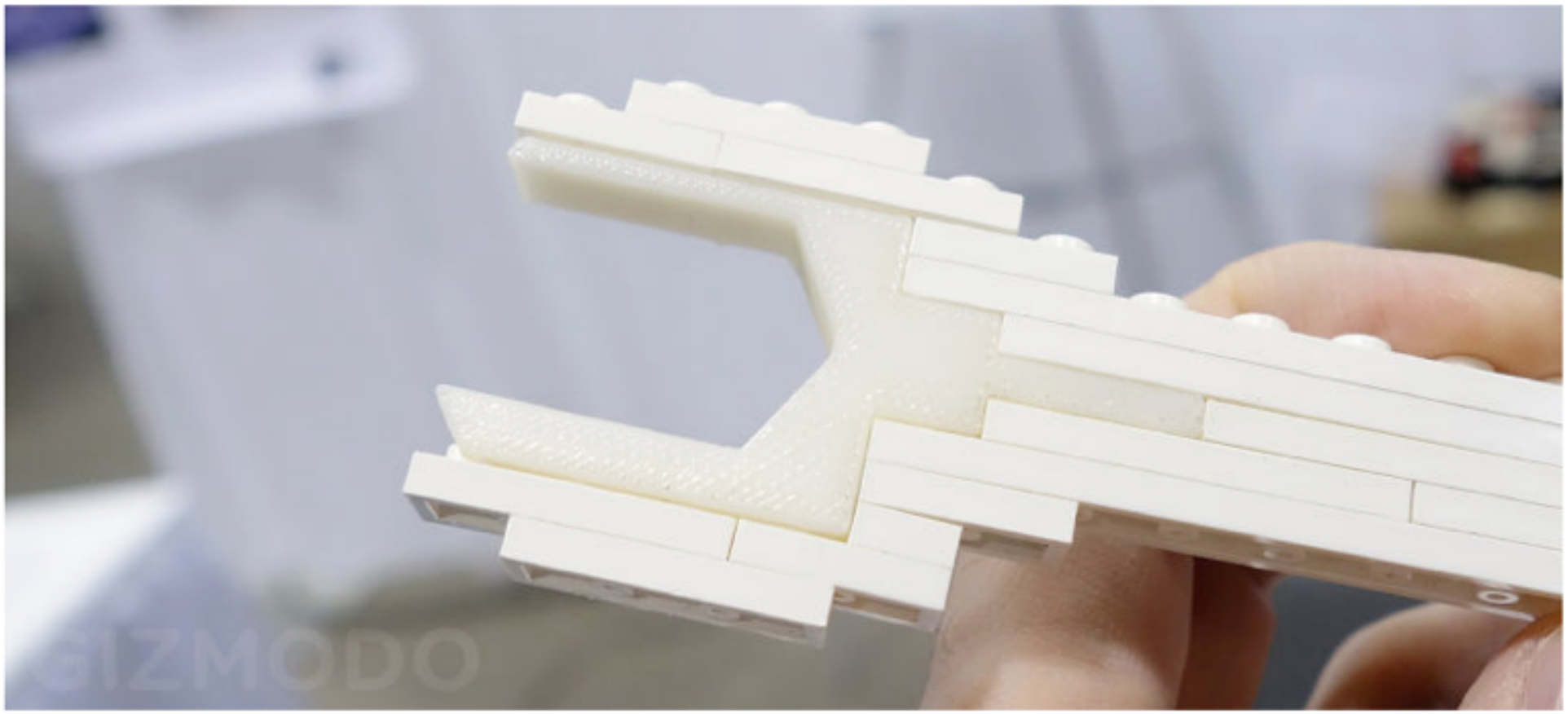
and again..



Replacing Parts of 3D-Printed Models With Lego Speeds Up Prototyping

and again..

Andrew Liszewski
4/29/14 1:50pm • Filed to: D PRINTING



Before '3D printing' became a catch-all term, the hardware, which has been in use for decades, was referred to as a rapid prototyper. But even waiting five hours for a 'rapidly' printed part can be a waste of time. And that's what

how to reach out to press folks

Submit Project

Before submitting your project please note that due to the high volume of emails we recieve we are unable to respond to all submissions. If we require additional information, we will get in touch. Please try to fill-out all fields providing as much information as possible. Where relevant, please state necessary credits, attributions, links, etc. Thank you.

Your Name (required)

Your Email (required)

Your Website (required)

URL to Project (required)

Project Description (required)

‘submit form’ never works in my experience

DAILY NEWS 8 February 2016

3D-printed display lets blind people explore images by touch

you can try to **google** a journalists name
but they never have their email address on their websites

By Paul Marks

Blind and partially sighted people often use tactile displays to interact with computers. These raised sets of Braille-

the only thing that worked for me is to

talk to somebody who has press contacts

you could talk to me and I get you in touch
if the project is interesting

keep it short: main pitch 2-3 lines
include a video link + images they can use

> On Fri, Oct 23, 2015 at 12:48 PM, Mueller, Stefanie <Stefanie.Mueller@hpi.de>wrote:
>
> Hi Andrew,
>
> we have a new fun project out called ProtoPiper, which allows users to quickly prototype large objects. The key idea is to use tape as a building material that is rolled up into pipes using our custom prototyping device.
>
> Here is the video: (password: hpihci)
> https://vimeo.com/142118199
>
> A few images are attached.
> Let me know if you like to cover it, then we can send more images in better resolution and will also upload the video to youtube.
>
> The project page is here:
> https://hpi.de/baudisch/projects/protopiper-physically-sketching-room-sized-objects-at-actual-scale.html
>
> Main contributors are Harshit Agrawal and Robert Kovacs with support from our head of the human computer interaction lab Patrick Baudisch.
>
> Best,
> Stefanie

content of a press article

what is the objective of the writer of an article?

write something that **readers will enjoy reading/buy**

what is your objective, why do you give interviews?

advertise

(your work, your work place, yourself
to get a better job, make mom proud,
in my case attract students + promote the lab…)

your objective & the writers objective **can often be aligned, thus allowing for a symbiosis** between your and the writer

and sometimes there is no win-win interview is a **“negotiation/fight”** over what will be written

what determines the **contents**
of a press interview article?

<30sec brainstorming>

what determines the contents of a press interview article?

the questions the reporter asks? — nope

it’s whatever you say

while commonly (mis)understood,
an interview is **not about answering questions**

instead, it is about getting the **most favorable article** written
(= the next best thing to **writing the story yourself)**

the next best thing to writing the story yourself…:

this means:

before talking to the press **lay out the article you want written** at least in your head

so now that you have your story,
how do you get your story across?

#1 pitching
#2 flagging
#3 bridging

#1 pitching

your goal is to make the reporter write **your “story”**

(again you need to **have a story to write** before you talk to the press)

elevator pitch: give it a try!

find somebody who is not your team mate:

1. tell the other person in **three short sentences** what is cool about your project

2. say it back to the first person, just shorter and more concise

3. first person, say it again, even more concise

4-6. switch roles and repeat

<5 min>

ok, so you pitched the story.

how can you make sure the reporter **writes down** your main statement / pitch?

<30sec brainstorming>

#2 flagging

flagging:

say something “quotable”
then make a **long pause…**

long enough to be **really uncomfortable,**
unless the reporter fills the time by **writing it down**

flagging: give it a try!

in teams of two:

1. tell the other person in your elevator pitch and one additional fact (e.g. a great side story, a big benefit).

2. Flag that additional fact.

3. switch roles and repeat

<5 min>

#3 bridging

you are pitching your startup, the press person says:

“Wow your presentation was great, the business plan for your startup looks really fantastic, and it’s great to see you have such a vast network of collaborators.

How come I always hear MIT is only about nerds sitting in a basement?”

Reporter: “How come you are such a wimp?”
Interviewee: “I am not a wimp”

Next day headline:
“I am not a wimp”

another example:

“Stefanie, what is it like to be **one of the few female faculty** among only males.”

how do you respond?

if you have a **top tier research project to talk about,** do not allow the science reporter to **waste your main story** to talk about the fact that you happen to have two X chromosomes.

(there are other outlets for promoting diversity)

“I did not want this to go into the article, but the reporter asked me. What was I supposed to do?”

really? how do you prevent that?

<30sec brainstorming>

do not **answer** the question
do not **repeat** the question either

instead, use the magic words
“that’s not how I tend to think of it” (non-quotable)
then talk about **what you** want them to write
(e.g., repeat your pitch)

it feels weird at the beginning, but it works like a charm!

Often times you don’t even need the “that’s not how I tend to think of it. <repeat pitch>”

If the answer to a question would not be favorable instead **answer the question you would have liked to get**

press:
“Stefanie, how was it when you started at Hasso Plattner Institute as one of the **few female students?”**

what I said:
“When I started at Hasso Plattner Institute I really enjoyed the research opportunities the institute offered. In my first research project I developed XX.”

= bridging

example question:
In an email interview I get asked “When will I be able to buy <research project of your choice> in the stores”

bad answer:
“We are a research lab, our research aims 10 years. The technology is huge and clunky… but in 5 years”

is it true? absolutely!
but what contents in the article **did you just produce?**
‘technology is huge and clunky’

example question:
“Does the depth camera in prototype X allow for reliable tracking?”

good answer:
“Yeah, the Time-of-flight camera was a really important aspect of our design, because it works in bright daylight. We think of this as being key to making imaginary phone truly mobile and ubiquitous.”

awesome!

bridging: give it a try!

in teams of two:

1. Interviewer: try to make the other person say something negative that is quotable. Interviewee: bridge.

2. switch roles and repeat.

<5 min>

additional things…

for topics you are **not an expert on**
(such as purpose of MIT,
the purpose of the research lab you are in)

refer to the person who is
(your advisor, MIT administration)

there is no **“off-the record”**
if you say it, chances are they will write it

get even **more control over the article:**
images: if you have pictures you like, **send them**
text: try to **review the article** before they go into print

Massachusetts Institute of Technology

keep your sponsors happy

mention “MIT” (or whoever your sponsor is) say it repeatedly

limitations…

you know the techniques, but they also know them

can lead to weird situations.

but again you don’t have to answer.

always make a friendly face and just say another sentence. **never look annoyed** - they might just cut this into the interview somewhere.

summary

#1 pitching

before the interview,
write down the story that you want printed

#2 flagging

a long pause after the main fact
makes sure reporters write it

#3 bridging

“that’s not how I tend to think of it.
<return to your pitch>”

end.