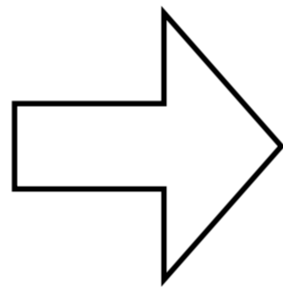


Breadboard to Best Buy...

Why don't more DIY electronics projects go **BIG**?

David Merrill
dave@sifteo.com



Thursday, July 29, 2010

last sketching: finishing my thesis (like Bjoern)
since then: adventure of startup
fortunate to be working with fellow sketcher Liam!

want to reflect on some thoughts
(Foo camp panel)
not really a trip report, more thoughts & observations

few DIY projects get mass produced...

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

**few DIY projects get
mass produced...**

why?

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

few DIY projects get mass produced...

why?

- products have “selective appeal”?

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

few DIY projects get mass produced...

why?

- products have “selective appeal”?
- makers not well connected?

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

few DIY projects get mass produced...

why?

- products have “selective appeal”?
- makers not well connected?
- complexities are too great?

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

few DIY projects get mass produced...

why?

- products have “selective appeal”?
- makers not well connected?
- complexities are too great?
- need a bigger / different team to pull it off?

Thursday, July 29, 2010

First: what do I mean by GO BIG? (in stores, high volumes)

SO MANY student projects, makers, tinkerers, hackers

Easier for SW projects to turn into companies that support the maker, but HW projects don't usually get there.

The GULF I recognized once I became a HW sketcher!

not everything needs to be in Best Buy...



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a "tidy / lifestyle business" for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business
 - Mitch Altman / TV-B-Gone



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business
 - Mitch Altman / TV-B-Gone
 - Jay Silver / Drawdio



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business
 - Mitch Altman / TV-B-Gone
 - Jay Silver / Drawdio
 - ThingM / BlinkM



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business
 - Mitch Altman / TV-B-Gone
 - Jay Silver / Drawdio
 - ThingM / BlinkM
 - Monome / 256,128,64



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

not everything needs to be in Best Buy...

- The “right size” may be a lifestyle business
 - Mitch Altman / TV-B-Gone
 - Jay Silver / Drawdio
 - ThingM / BlinkM
 - Monome / 256,128,64
 - cool, but do the individuals make a living?



Thursday, July 29, 2010

DIY products sell through Sparkfun / Adafruit / etc,

BUT these outlets don't drive super-large volumes and (presumably) don't have great margins for the maker.

Is it even a “tidy / lifestyle business” for anyone but the website that does the selling??

getting your stuff made

“For Hong Kong brokers, confusion is their advantage..”

- Liam Casey, PCH



a guy who
knows MFG



a small company
that knows MFG



a large company
that knows MFG

Thursday, July 29, 2010

Liam wins on the back streets of China, and his clients win on the main streets of America.

on margins

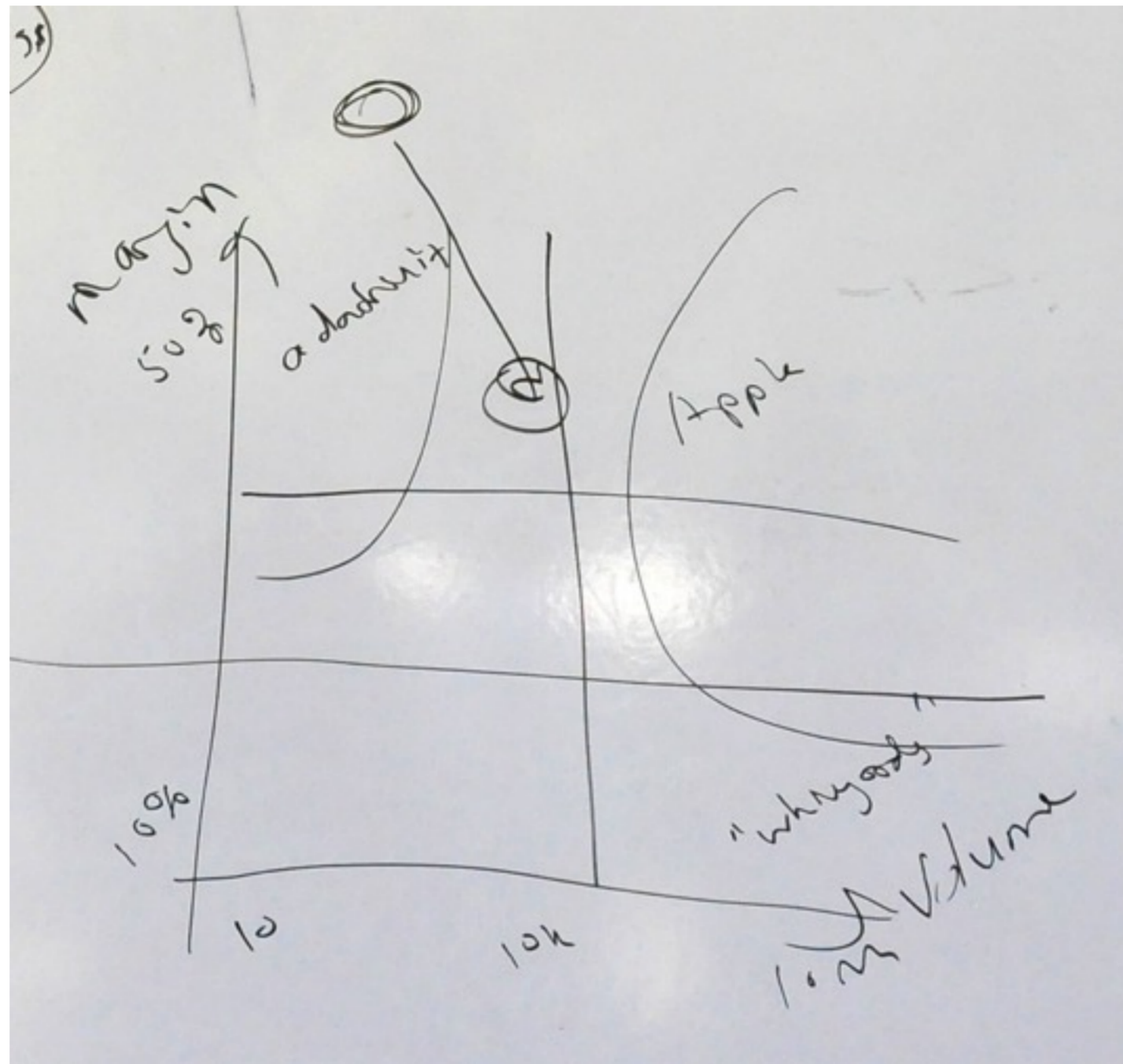


chart courtesy Bunnie Huang

Thursday, July 29, 2010

DIRECT: best – 0%

E-TAIL: OK (can be as low as 15–20%)

RETAIL: WORST (from 30% in BB to 60%+ somewhere like Brookstone / Hammacher Schlemmer)

financing it

Thursday, July 29, 2010

VC: from their POV

- they came from web/SW world
- HW made by large companies
- want to see HW melt away into a service (scaling)
- that said: SOME are there, demo is key

Bootstrapping: you own it all!

Strategic MFG: interesting, but kinda like VC

financing it

- VC (not many comfortable with HW)

Thursday, July 29, 2010

VC: from their POV

- they came from web/SW world
- HW made by large companies
- want to see HW melt away into a service (scaling)
- that said: SOME are there, demo is key

Bootstrapping: you own it all!

Strategic MFG: interesting, but kinda like VC

financing it

- VC (not many comfortable with HW)
- Bootstrapping (can be slow going)

Thursday, July 29, 2010

VC: from their POV

- they came from web/SW world
- HW made by large companies
- want to see HW melt away into a service (scaling)
- that said: SOME are there, demo is key

Bootstrapping: you own it all!

Strategic MFG: interesting, but kinda like VC

financing it

- VC (not many comfortable with HW)
- Bootstrapping (can be slow going)
- Strategic partners / toy-inventor model (may be slightly easier than pitching to VCs, but maybe not...)

Thursday, July 29, 2010

VC: from their POV

- they came from web/SW world
- HW made by large companies
- want to see HW melt away into a service (scaling)
- that said: SOME are there, demo is key

Bootstrapping: you own it all!

Strategic MFG: interesting, but kinda like VC

financing it

- VC (not many comfortable with HW)
- Bootstrapping (can be slow going)
- Strategic partners / toy-inventor model (may be slightly easier than pitching to VCs, but maybe not...)



Thursday, July 29, 2010

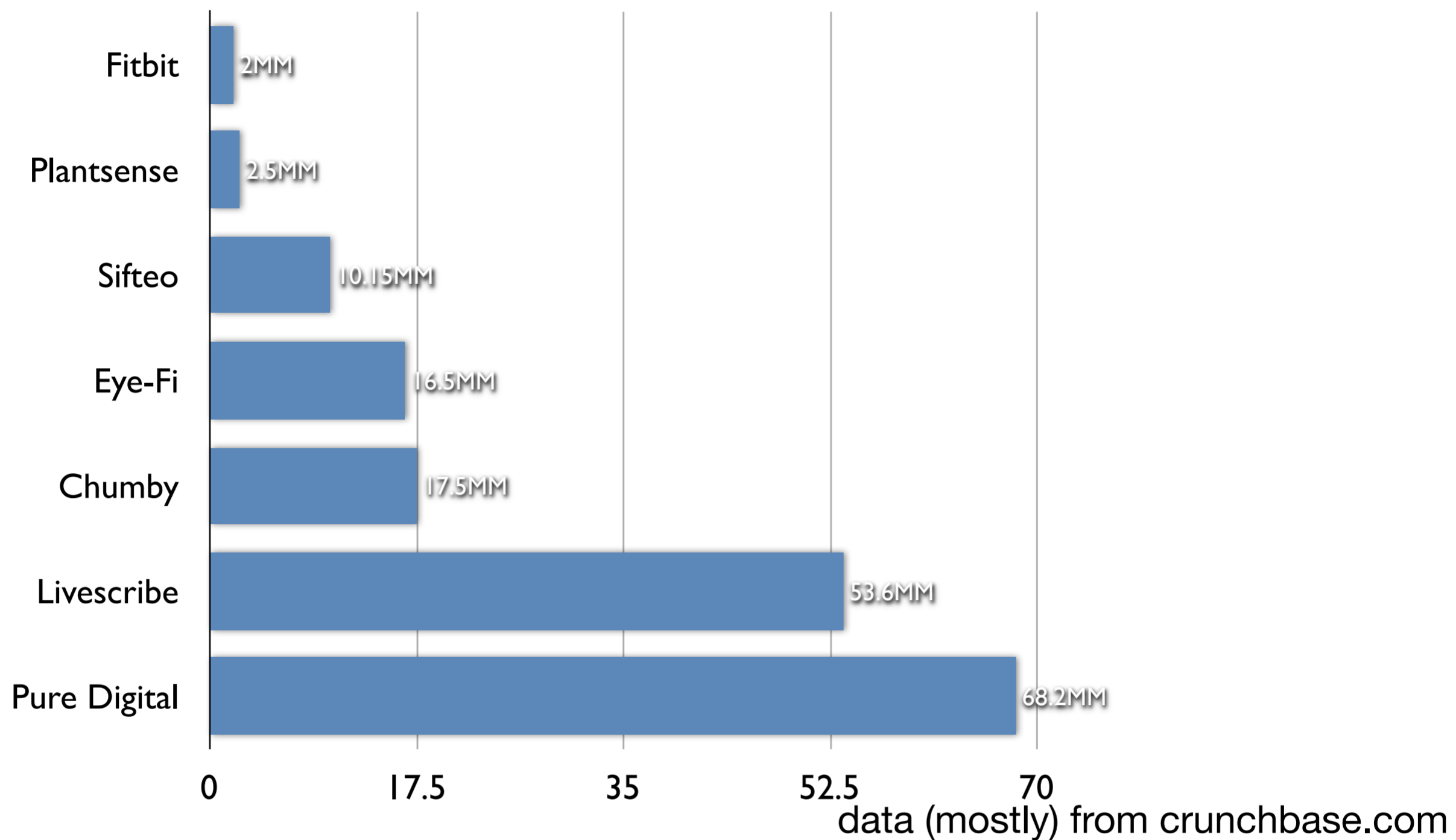
VC: from their POV

- they came from web/SW world
- HW made by large companies
- want to see HW melt away into a service (scaling)
- that said: SOME are there, demo is key

Bootstrapping: you own it all!

Strategic MFG: interesting, but kinda like VC

hardware startups



Thursday, July 29, 2010

Needing to raise more \$\$ to get HW made, that's one obstacle.

Let's look at some examples, and for startups – how much \$\$ they raised to date

Even at the “LOW END” of this, raising a couple million is not easy!

sifteo: what we did

- Incubated the original idea at MIT Media Lab, filed IP (2006-2008)
- SBIR \$150K (early 2009)
- Started building mfg-ready prototype (2009)
- VC Series A \$1M (summer 2009)
- Hired Dragon Innovation (winter 2009)
- Built mfg-ready prototype (early 2010)
- Secured a CM (early 2010)
- VC Series B \$9M (spring 2010)
- working toward launch (NOW)



some tips

some tips

- get as much free advice as you can

some tips

- get as much free advice as you can
- hire help if you can afford it

some tips

- get as much free advice as you can
- hire help if you can afford it
- get everyone excited (suppliers, CM, channels)

some tips

- get as much free advice as you can
- hire help if you can afford it
- get everyone excited (suppliers, CM, channels)
- cost-reduce, but don't go overboard

some tips

- get as much free advice as you can
- hire help if you can afford it
- get everyone excited (suppliers, CM, channels)
- cost-reduce, but don't go overboard
- create a strong brand

some tips

- get as much free advice as you can
- hire help if you can afford it
- get everyone excited (suppliers, CM, channels)
- cost-reduce, but don't go overboard
- create a strong brand
- figure out how much \$\$ you need

bringing it out of the university / lab



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)
- time to work



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)
 - time to work
 - living expenses covered



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)
 - time to work
 - living expenses covered
 - feedback from tons of sharp people



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)
 - time to work
 - living expenses covered
 - feedback from tons of sharp people
 - IP (think carefully)



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!

bringing it out of the university / lab

- Universities are great incubators (esp. for Ph.D. students)
 - time to work
 - living expenses covered
 - feedback from tons of sharp people
 - IP (think carefully)
 - using the university name can be complicated...



Thursday, July 29, 2010

This is not news to many in this community...

Siftables benefitted from this!



Thursday, July 29, 2010

Get the word out! (however that may work best...)

Know that once you get the word out, you're on the radar...

conclusions

conclusions

- why don't more projects cross over?

conclusions

- why don't more projects cross over?
- do you WANT to build a company?

conclusions

- why don't more projects cross over?
- do you WANT to build a company?
- if not, consider strategic partnerships

conclusions

- why don't more projects cross over?
- do you WANT to build a company?
- if not, consider strategic partnerships
- protect your IP with provisional patents, then make it full within 1 year (\$\$)

conclusions

- why don't more projects cross over?
- do you WANT to build a company?
- if not, consider strategic partnerships
- protect your IP with provisional patents, then make it full within 1 year (\$\$)
- OR: open up the HW but build a brand

conclusions

- why don't more projects cross over?
- do you WANT to build a company?
- if not, consider strategic partnerships
- protect your IP with provisional patents, then make it full within 1 year (\$\$)
- OR: open up the HW but build a brand



bleeplabs.com



Thursday, July 29, 2010

on sketching..



Thursday, July 29, 2010

on sketching..

- siftables have come a long way from the sketch



on sketching..

- siftables have come a long way from the sketch
- every product is a million crystalized sketches



on sketching..

- siftables have come a long way from the sketch
- every product is a million crystalized sketches
- how do you imagine “sketching” with Siftables?

