

Innovation Event Series:

Get inside the head of an investor saying YES to high risk

Bess Ho
Moderator

HOSTED BY Silicon Valley Builder



**What are the latest
hardware successes?**

Peloton

IPO \$29 2019 NASDAQ: PTON
Raised \$1.9B
NYC founded in 2012



Tesla

IPO \$17 2010 NASDAQ: TSLA
Raised \$20B
Palo Alto founded in 2003



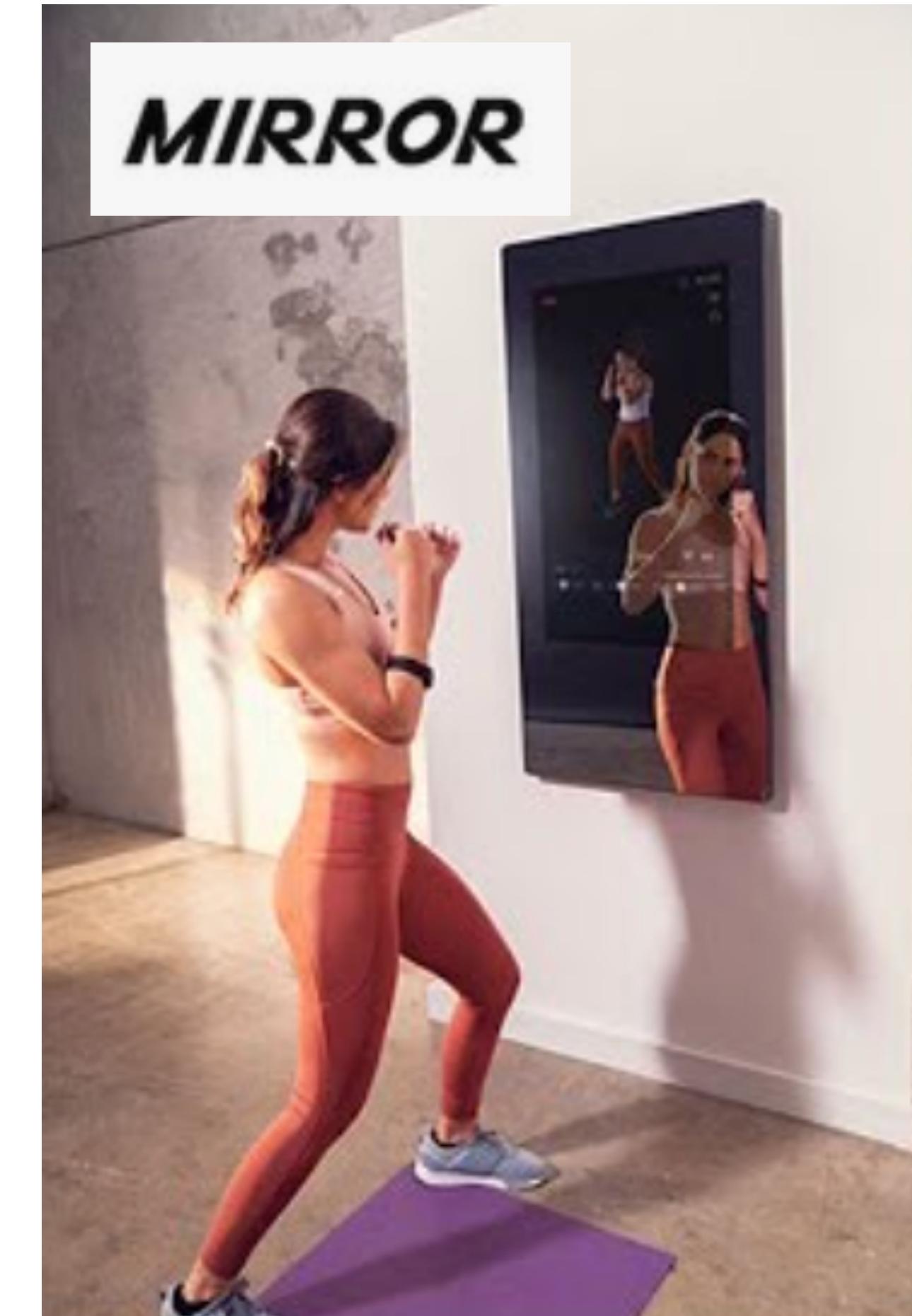
Tonal

Raised \$450M
SF founded in 2015



Mirror

Acquired by Lululemon \$500M in 2020
Raised \$75M
NYC founded in 2016



Desktop Metal

IPO in 2020 NYSE: DM
Raised \$712M
Boston founded in 2015



Mighty Buildings

Raised \$76M
Oakland founded in 2016



Latch

Raised \$152M
NY founded in 2014

LATCH



Matterport

Raised \$114M
Sunnyvale founded in 2011

Matterport



Dreem

Raised \$57M
SF founded in 2014

dreem



FOVE

Raised \$17M
SF founded in 2014

Industry-leading eye tracking



June

Acquired by Weber 2021
Raised \$30M
SF founded in 2013

june



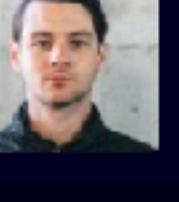


5 consumer hardware VCs share their 2021 investment strategies

Investors are generally bullish on at-home fitness startups

- Hans Tung, managing partner, GGV Capital
- Dayna Grayson, co-founder and general partner, Construct Capital
- Cyril Ebersweiler, general partner, SOSV
- Bilal Zuberi, partner, Lux Capital
- Rob Coneybeer, managing director, Shasta Ventures

Top Hardware Seed Investors (200)

INVESTORS	SWEET SPOT (RANGE)	INVESTMENT LOCATIONS	TOP INVESTMENT CATEGORIES	
SAVE VIEW	 Jeff Clavier Uncork Capital Managing Partner	\$1M (\$750K - \$1.5M)	Investors in SF Bay Area (CA), Investors in New York (NY), Investors in Boston / New England, Investors in Canada	Investors in AI, Investors in Cloud infrastructure, Investors in Developer tools, Investors in Hardware (Seed), Investors in Health IT, Investors in IoT, Investors in... +4
SAVE VIEW	 Jon Callaghan True Ventures Managing Partner	\$2.0M (\$500K - \$5.0M)	Investors in Palo Alto (CA), Investors in SF Bay Area (CA)	Investors in AI, Investors in Biotech, Investors in Consumer health & fitness, Investors in Enterprise, Investors in Hardware (Seed), Investors in IoT, Investors... +2
SAVE VIEW	 Doug Renert Tandem Managing Partner	\$1M (\$500K - \$2.0M)	Investors in Burlingame (CA)	Investors in Cloud infrastructure, Investors in Food and beverage, Investors in Hardware (Seed), Investors in IoT, Investors in Marketplaces, Investors in San Francisco B... +1
SAVE VIEW	 Bill Coughran Sequoia Capital Partner	\$1M (\$100K - \$10.0M)	Investors in San Francisco (CA), Investors in Menlo Park (CA)	Investors in Consumer products, Investors in Hardware (Seed), Investors in San Francisco Bay Area (Other Lists), Investors in Security
SAVE VIEW	 Sundeep Peechu Felicis Ventures General Partner	\$1.5M (\$250K - \$3.0M)	Investors in San Francisco (CA)	Investors in AI, Investors in AR/VR, Investors in Cryptocurrency, Investors in E-commerce, Investors in Enterprise, Investors in Hardware (Seed), Investors in... +5
SAVE VIEW	 Rob Hayes First Round Capital Partner	\$800K (\$500K - \$1.5M)	Investors in San Francisco (CA)	Investors in Advertising, Investors in Cloud Infrastructure, Investors in Enterprise, Investors in Fintech, Investors in Food and beverage, Investors in Hardware (Seed),... +2
SAVE VIEW	 Adam D'Augelli True Ventures Partner	\$1.4M (\$1M - \$2.0M)	Investors in San Francisco (CA)	Investors in AI, Investors in Analytics, Investors in Biotech, Investors in Cloud infrastructure, Investors in Developer tools, Investors in Hardware (Seed), Investors... +5
SAVE VIEW	 Ian Rountree Cantos Ventures Managing Partner	\$350K (\$150K - \$500K)	Investors in San Francisco (CA)	Investors in Biotech, Investors in Cars / autonomous vehicles, Investors in Chemicals, Investors in Clean tech / environment, Investors in Energy tech, Investors in... +8

Who else is investing in Hardware



- 1) **Hardware-only VCs**
A few funds that work only with hardware companies - first money in and can follow-on but not lead future investment rounds.
- 2) **Hardware-friendly micro VCs**
A few micro VCs that invests \$50K-\$500K at the seed stage but often don't lead and don't focused on hardware exclusively.
- 3) **Hardware-friendly traditional VCs**
A few traditional VCs that are active in investing hardwares.

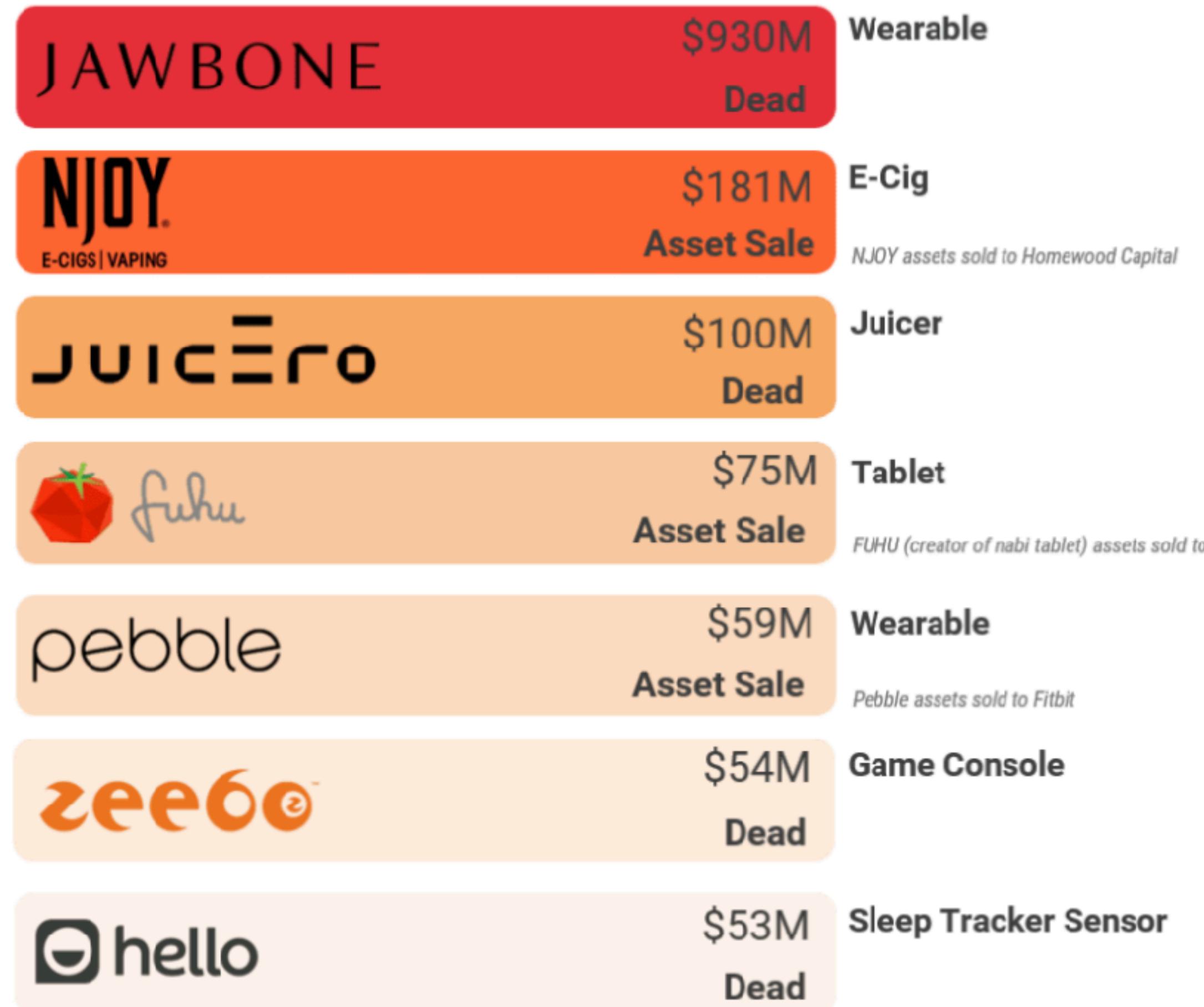
Where are the hardware money flowing?



**Why do certain
hardware startups fail?**



TOP 7 DEAD CONSUMER HARDWARE STARTUPS BY AMOUNT RAISED



* \$M shown of amount raised before Dead/Asset Sale

Failure Reasons

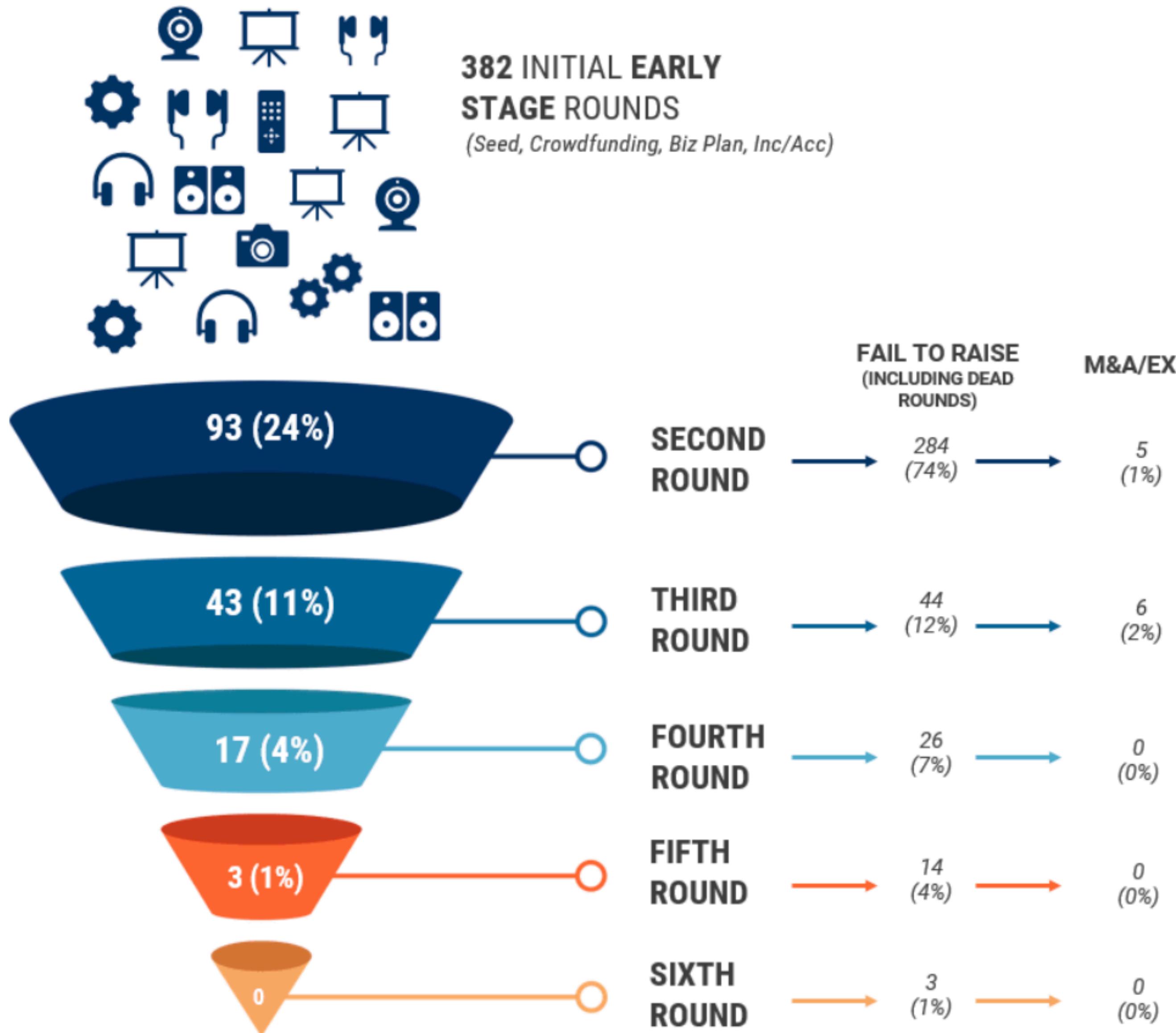
- 1) Lack of consumer demand
- 2) High burn rate
- 3) Lack of interest after initial crowdfund
- 4) Product Strategy mistakes

Other failed funded startups including Electric Objects, Lily Robotics, NJOY, Pearl Automation, Coin, Plastic, Inq Mobile, Bia Sport, Electroloom, Narrative Clip camera, Angel Sensor wristband



CONSUMER HARDWARE THROUGH THE FUNNEL

Initial Rounds in 2012 or 2013



56% of 382 consumer hardware startups analyzed raised their first fund on a site like Kickstarter or IndieGogo

The median size of those crowdfunding raises was \$210K

Hardly a small seed round, incubator/accelerator deal or crowdfunding raise can take a startup's product beyond prototyping phase



97%
DEAD / SELF-SUSTAINING

NOTABLE EXIT:
OCULUS VR \$2B

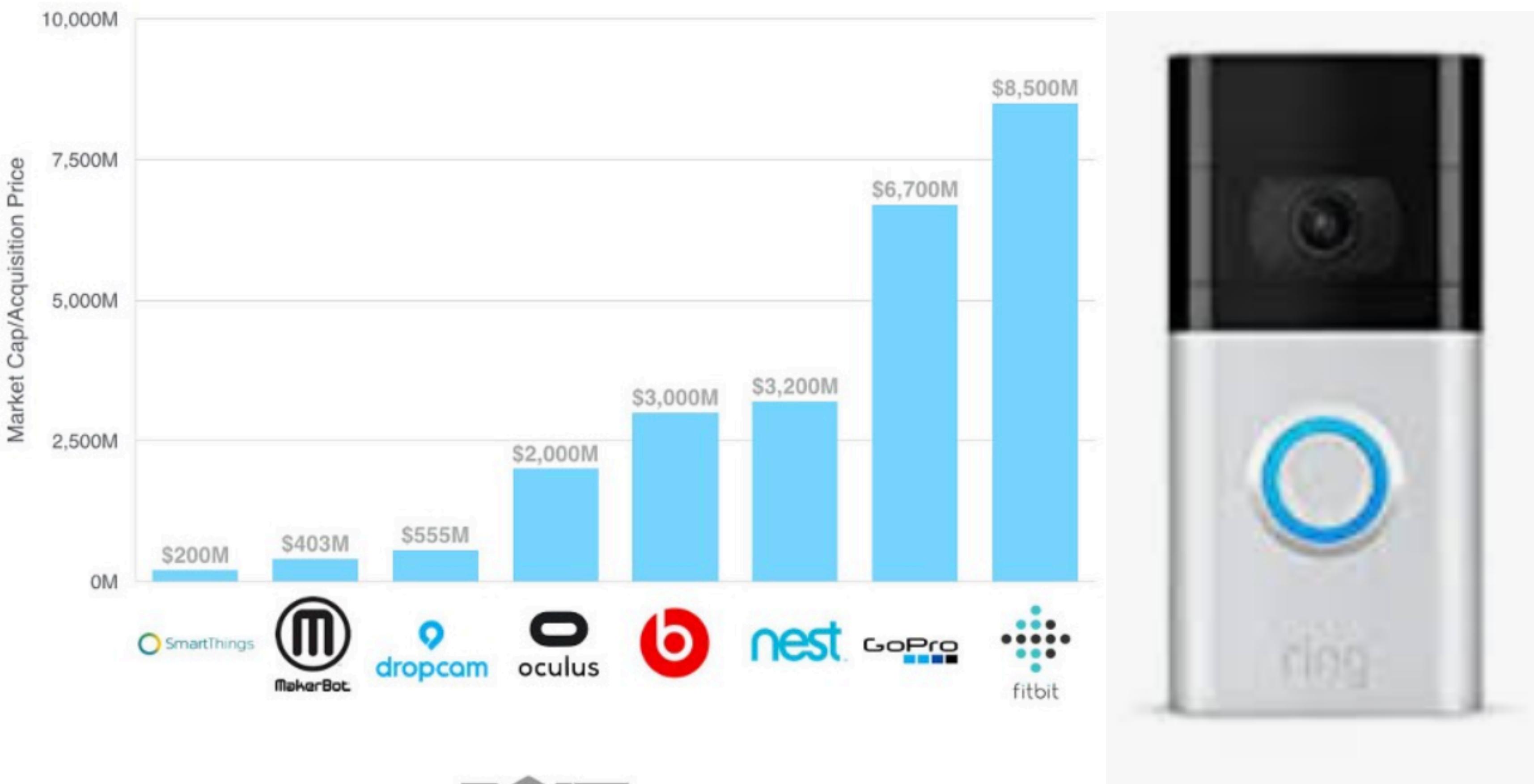


NOTABLE EXIT:
SMARTTHINGS \$200M

**What are driving investors
to seek hardware startups?**

Strong Exits

Consumer Hardware Startup Exits (2013-2015)



Ring

Acquired by Amazon \$1B in 2018
Los Angeles founded in 2012



Raised \$204M from
Shea Ventures, True
Ventures, Upfront
Ventures

BOLT

Venture Capital Designed for Hardware

Nest

Acquired by Google \$3.2B in 2014
Raised \$230M
SF founded in 2010



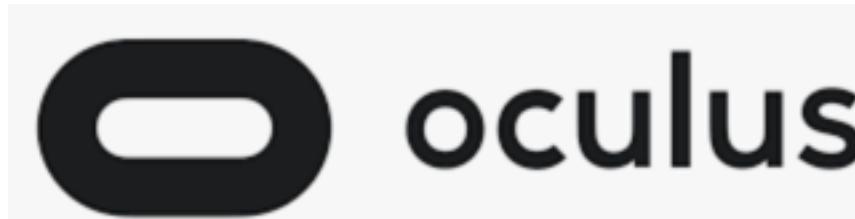
Beats

Acquired by Apple \$3B in 2014
Raised \$800M
Los Angeles founded in 2006



Oculus

Acquired by Facebook \$2B in 2014
Raised \$98M
Menlo Park founded in 2012



Dropcam

Acquired by Google \$555M in 2014
Raised \$48M
SF founded in 2009



MakerBot

Acquired by Stratasys \$403M in 2013
Raised \$10M
NY founded in 2009



SmartThings

Acquired by Samsung \$200M in 2014
Raised \$19M
Mountain View founded in 2012



LIFX

Acquired by Buddy \$51M in 2019
Raised \$16M
Redwood City founded in 2012



Blink for Home

Acquired by Amazon \$90M in 2018
Raised \$6M
Boston founded in 2012



Xilinx (VIE: XLNX)

Acquired by AMD \$35B in 2020
Raised \$862K
San Jose founded in 1984



ARM (LSE:ARMH)

Acquired by NVIDIA \$40B in 2020
Raised \$80M
Cambridge UK founded in 1990



Modcam

Acquired by Cisco in 2020
Raised \$8M
Sweden founded in 2013

MOD.CAM



Meraki

Acquired by Cisco \$1.2B in 2012
Raised \$80M
SF founded in 2006

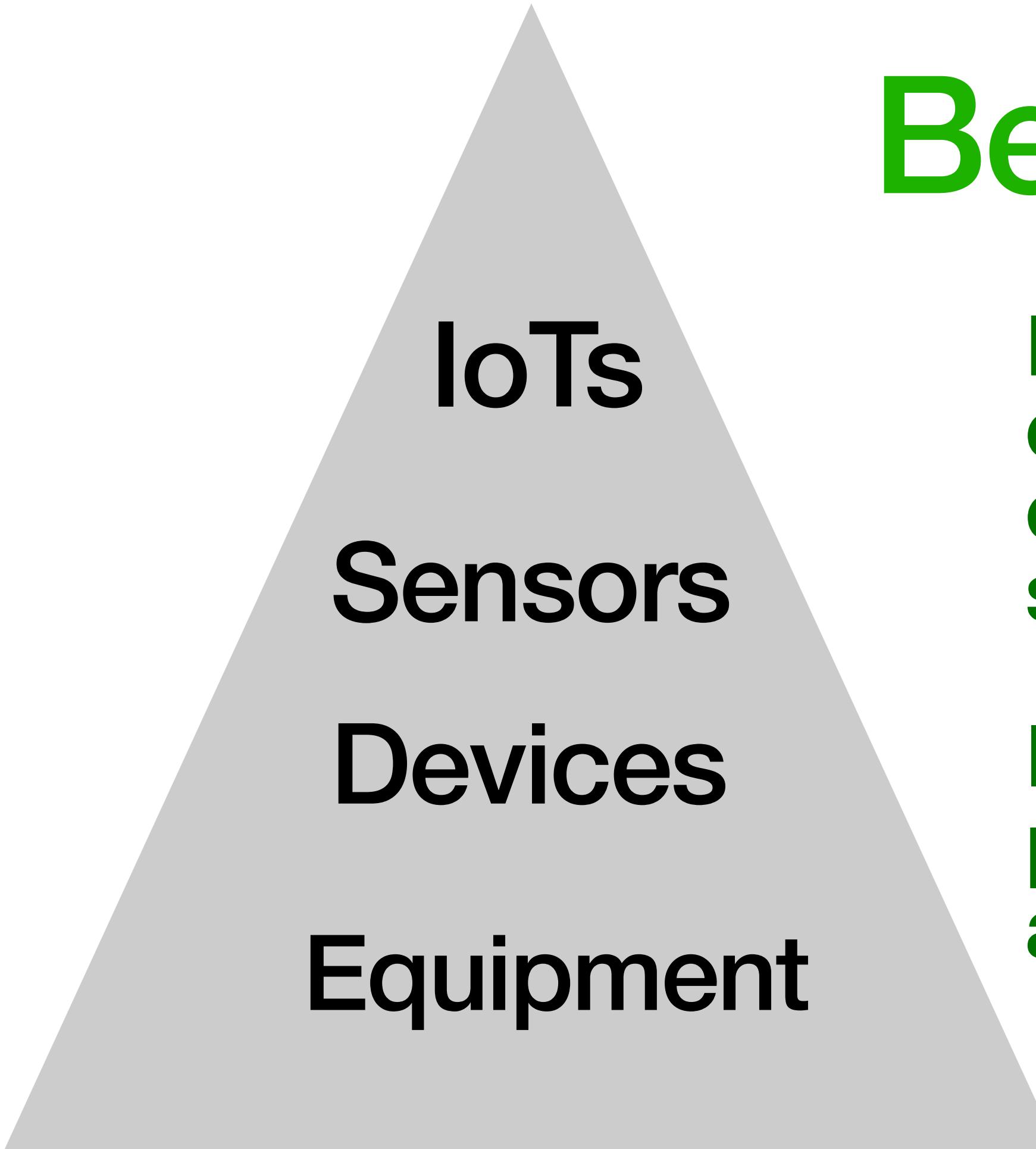
Meraki



SaaS-like Metrics

Hardware-as-a-Service (HaaS)

Benefits



IoTs
Sensors
Devices
Equipment

Businesses shifts from having to capitalize expenditures on the balance sheet (capex) to expensing these costs on a profit and loss statement, or operating expense (apex)

It results in a higher Lifetime Value and predictable streams of revenue. Customers are “locked” to longer term service contracts.

Hardware-as-a-Service (HaaS)

Successfully applied by:

- > Amazon
- > Axon
- > Big Belly
- > British Gas
- > Hitachi Trains
- > Hilti
- > HP
- > Caterpillar
- > Citibike
- > Fenix International
- > GE Healthcare
- > Henry Schein
- > Microsoft Surface
- > Philips
- > Sigtuple
- > Vivint
- > Zipcar
- > Siemens

Customer perspective

Benefits

- ✓ Lower upfront cost to get service, shifting from Capex to Opex
- ✓ Ideal when customer revenue is tied to usage (e.g. security systems monitoring)

Challenges

- ✓ Frustration with hardware lock-in, difficult to change
- ✓ May prefer to own and capitalize hardware on balance sheet rather than have it be owned by the seller (carpets, hospital equipment)
- ✓ Inability to fix and repair without permission from hardware owner (Caterpillar tractors)

Key Performance Indicators

- ✓ Total cost of ownership vs. alternative
- ✓ Investment aligned to business outcomes

Company perspective

Benefits

- ✓ High margins for business over time with profits built into recurring revenue and usage (as-a-service)
- ✓ Accelerates customer migration to cloud
- ✓ Stronger moat and lock-in with hardware, which is more difficult for SaaS new entrants to displace

Challenges

- ✓ Not as simple as offering a product with as-a-service billing; often requires complete reconfiguration of the value proposition on the service experience
- ✓ Difficult unit economics at scale, requires rigorous focus on contribution margin
- ✓ Often requires the company to keep and capitalize hardware on their balance sheet, or partner with a financing company

Key Performance Indicators

- ✓ Contribution margin
- ✓ Retention
- ✓ Net Promoter Score

Hardware + Software = Less Commoditization



Hardware + Software = Software company

Hardware = enabler

These startups have recurring revenue and more software engineers than hardware engineers.

Software services are harder to copy. It increase switching cost and offer more customer engagement to build brand.

Three Business Models

- 1) Hardware-as-a-Service**
The recurring fee is a software license or service fee
Particle, Karma, DipJar
- 2) Hardware-enabled Services**
Freemium model add margin on the sales of each unit
Dropcam (acquired by Nest), Fitbit (acquire by Google), Meural (acquired by Netgear)
- 3) Consumables**
One-time hardware sales but repeatable purchase on consumable supplies
Nespresso, Keurig, Amazon Kindle

**What are the notable exits
and HW startups?**

InPhi Lead

IPO \$12 in 2010 NASDAQ: IPHI
Raised \$258M
San Jose founded in 1998



Acquired by Marvell \$10B in 2021

Market Summary > Marvell Technology Group Ord Shs

47.48 USD

+1.64 (3.58%) ↑

Closed: Apr 21, 6:59 PM EDT ·Disclaimer

After hours 47.58 +0.10 (0.21%)

NASDAQ: MRVL

+ Follow

1 day | 5 days | 1 month | 6 months | YTD | 1 year | 5 years | Max



Intellon

IPO \$9 in 2007 NASDAQ: ITLN
Raised \$95M
Orlando FL founded in 1989



Acquired by Qualcomm \$244M in 2009

Market Summary > QUALCOMM, Inc.

133.40 USD

-1.85 (1.37%) ↓

Closed: Apr 20, 7:46 PM EDT · Disclaimer

After hours 133.00 -0.40 (0.30%)

NASDAQ: QCOM

+ Follow

1 day | 5 days | 1 month | 6 months | YTD | 1 year | 5 years | Max



Techwell

Acquired by Intersil in 2010
IPO \$10 2005 NASDAQ: TWLL
Raised \$20M
San Jose founded in 1986



Continuous Computing Lead

Acquired by Radisys in 2011
Raised \$36M
San Diego founded in 1998



Teknovus

Acquired by Broadcom \$123M in 2010
Raised \$63M
Petaluma founded in 2001



Athena Semiconductor

Acquired by Broadcom in 2005
Raised \$15M
Fremont founded in 2001



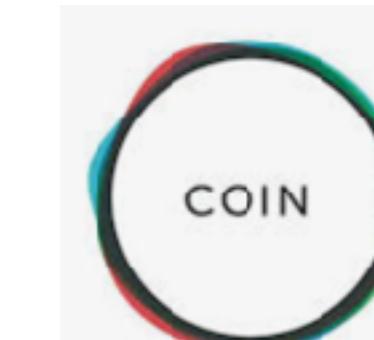
Pure Digital

Acquired by Cisco \$590M in 2009
Raised \$68M
SF founded in 2001



Coin Lead

Acquired by Fitbit in 2016
Raised \$16M
SF founded in 2012



Silk Labs

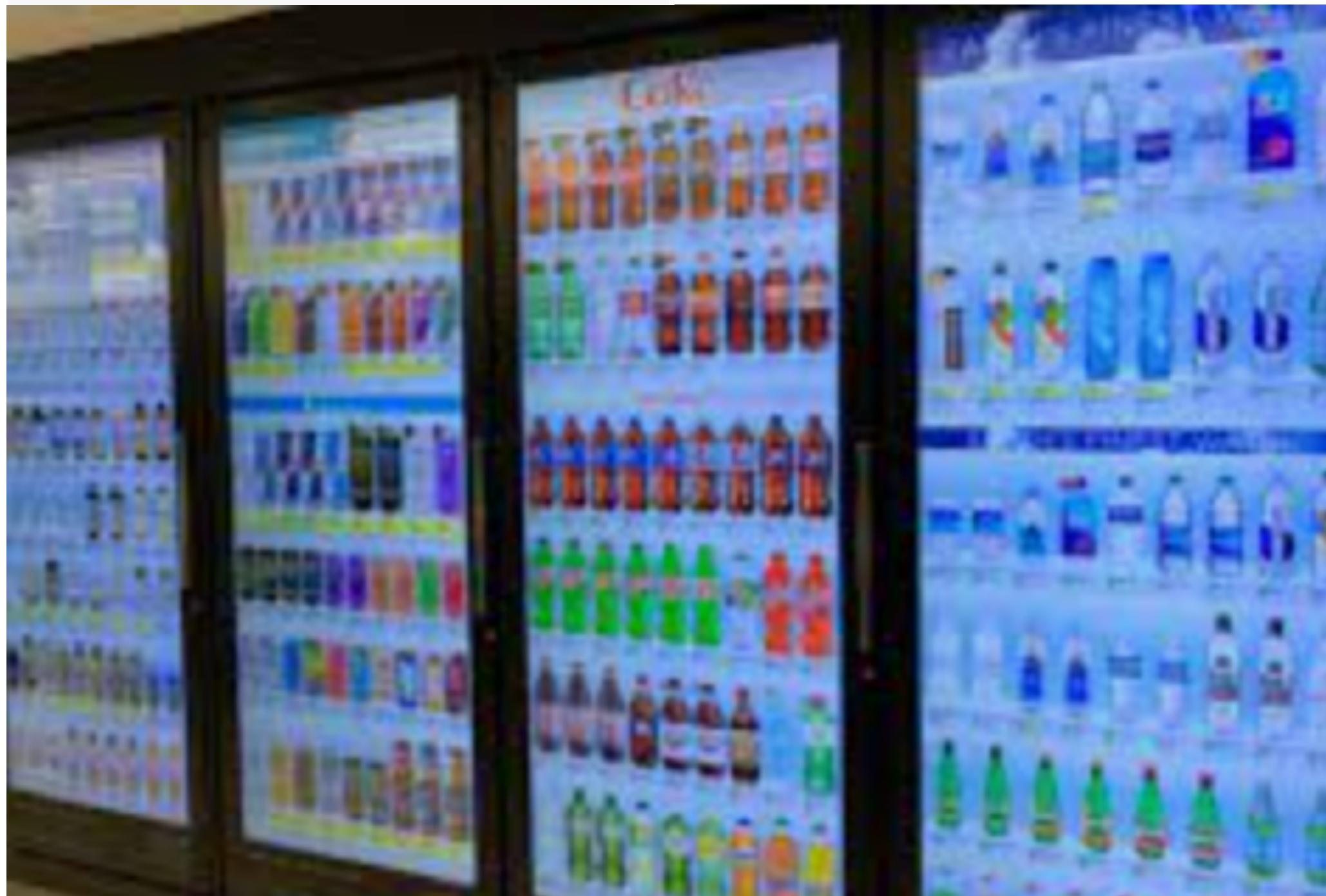
Acquired by Apple in 2018
Raised \$4M
San Mateo founded in 2015



**What are the notable
HW startups?**

Cooler Screens Lead

Raised \$81M
Chicago founded in 2017



Gamevice Lead

Raised \$13M
LA founded in 2008



Molekule

Raised \$96M
SF founded in 2014



MOLEKULE

Teforia

Lead
Raised \$17M
Mountain View founded in 2014





Hinge Health

Raised \$426M
SF founded in 2015



Physiowave

Raised \$6.6M
Santa Clara founded in 2005

PhysioWave™





Kali Care

Raised \$5M
SF founded in 2014



KitchenMate

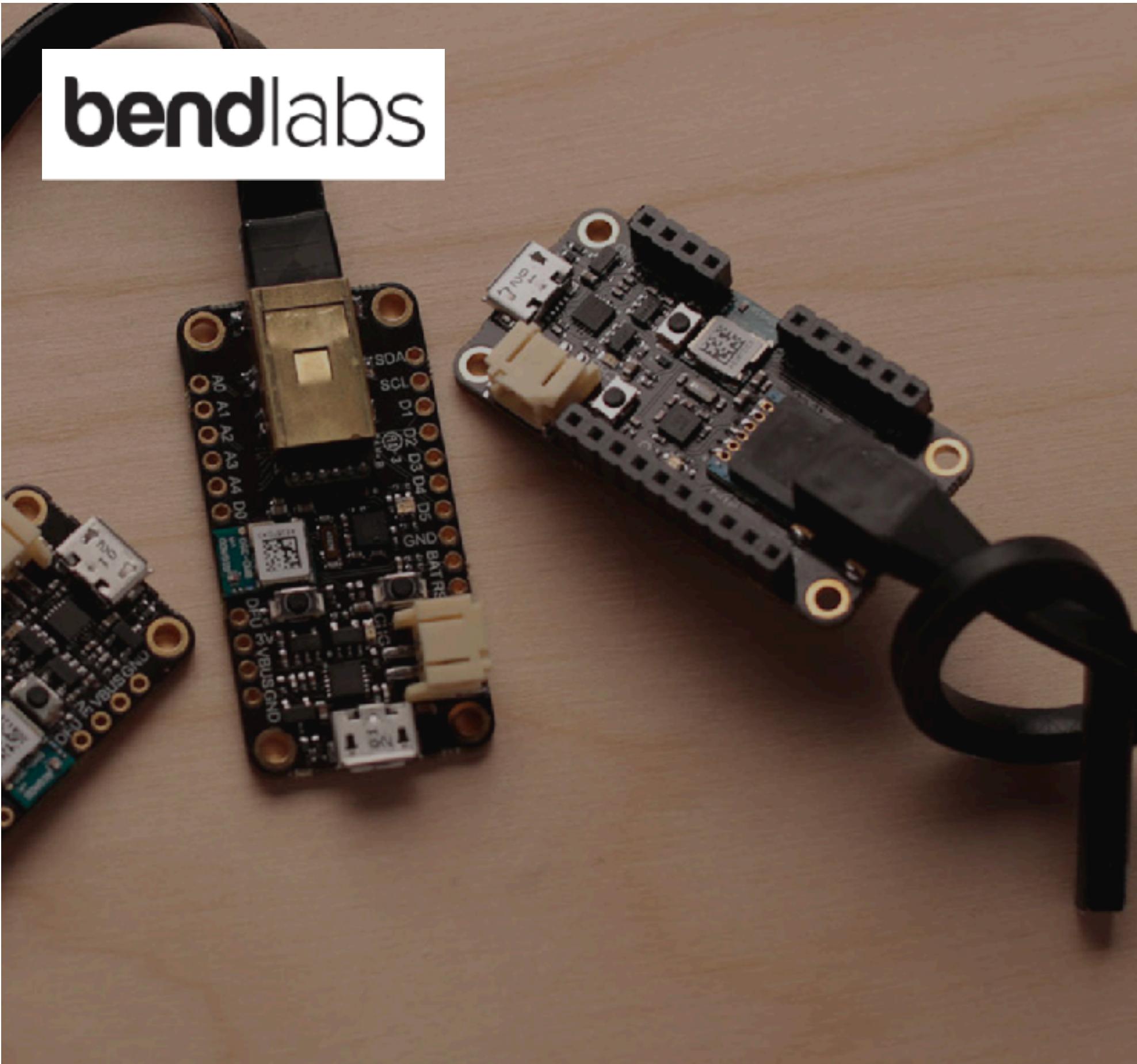
Raised \$3.5M
SF founded in 2014





Bend Labs

Raised \$2.6M
Salt Lake City UT founded in 2013



Inscope Medical

Raised \$2.4M
Indiana founded in 2014





Ario Living

Raised \$2M
Seattle founded in 2015



CleverPet

Raised \$1.4M
San Diego founded in 2014



Nanom

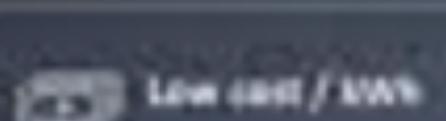
Raised \$3M

Palo Alto founded in 2017



Nanom Nanotechnology advantage Nanoparticles for batteries

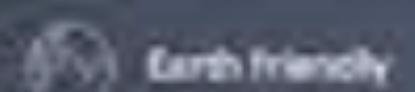
Uniquely shaped ultra-high-surface-area Nanoparticles uniquely suited to high surface area applications (batteries, coatings, catalysts)



By making active and conductive components nano-size we improve performance.



Example:
Nano Edison
Solid State
Lithium Ion



Pubinno

Raised \$2.4M

SF founded in 2015



Resonado Labs

Raised \$2.2M

Chicago founded in 2017



FCS™ Technology



HW: Find your Lead Investor

Must have: HW experience

HW: Exit is your founder's responsibility

Don't assume it's magic. Don't assume it's falling on VCs' responsibility.

Innovation Event Series: Part III

Get inside the head of investor saying YES to high risk

Apr 21st 2021 Wed 7pm
Meetup Silicon Valley Builder
Zoom Live



Bess Ho
Moderator
Silicon Valley Builder



Joseph Wei
Managing Director
Technology Ventures Group



Edward King
VP of New Ventures
Inventec



Jing Ge
Founding Partner
Vectors Angel



Jay Eum
Managing Partner
GFT Ventures

Innovation Event Series:

Part III: Investment Panel

Q&A

HOSTED BY Silicon Valley Builder

