studio 3e8

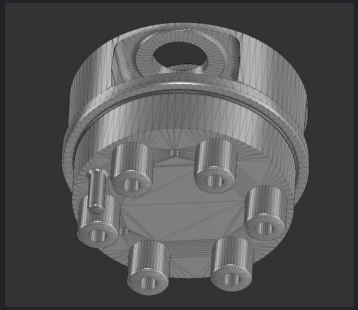
Lightspeed Fabrication for Physical Matter

Metal 3D Printing · Desktop Form Factor · Recurring Revenue Model · $55M+ Year 3 Revenue

PROBLEM

Current manufacturing methods fail to make these parts

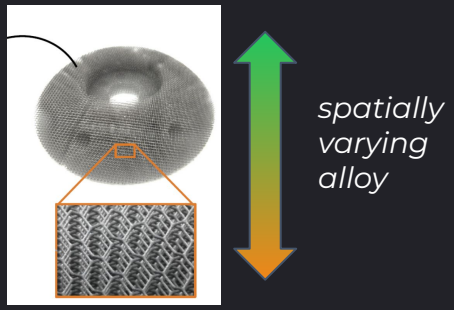
Boston Dynamics



Planetary Gear Box for humanoid robotics
Internal mounting and alignment features, requires dimensional accuracy to fit into assembly.

- **$600M** machine shop
- **$2M** metal printer
- **Could not produce** this part

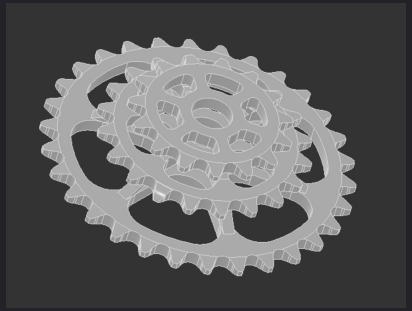
NASA JPL



Protecting Martian samples returning to Earth
Gradient alloy with variable mechanical properties, custom lattice shape.

- **Top of the line R&D** resources
- **Technology did not exist** to produce the part they wanted
- Had to use an **inferior design**

SRAM



Combined gear stack for high performance bicycles
Thin, fine, internal features that require the utmost precision but maintain strength.

- Worked with **GE** & **Desktop Metal**
- **Could not produce** this part
- Had to go back to **costly legacy machining**

SOLUTION

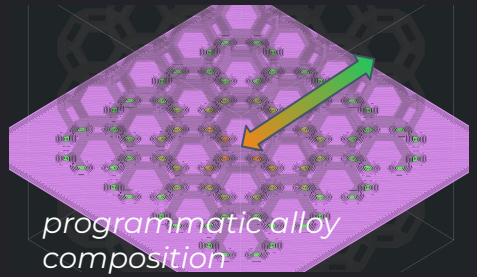
Our tech makes these parts possible

Boston Dynamics

Our print process is fully supported by negative space and **free of geometric limitations**.

Designs are no longer limited by the capabilities of their fabrication method.

NASA JPL



Studio 3e8's **patent-pending print process** enables multi-material parts, unlocking material composition as a design axis.

Previously impossible applications are enabled for materials, energy, and robotics.

SRAM

An **anisotropic** process with no thermal gradients sidesteps design limitations found in other technologies.

Part strength is uniform and distortion is minimized.

PATENT-PENDING PROCESS

Scaffold Contrast Sintering (SCS)

1200 mm

Generation 4 Printer Hardware

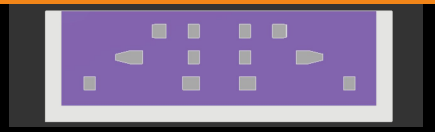
0) Software output from Studio 3e8's slicing software

1) Crucible is filled with material contrast mask: **metal part** and **ceramic scaffold**

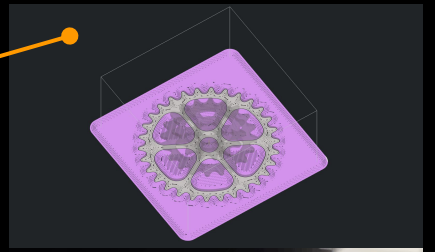
2) Crucible is automatically lowered into integrated furnace

3) The crucible is heated, solidifying/sintering the **metal part** within the still-loose **scaffold**

Cross section of filled crucible



Calculated layer paths



Layer printing

Sintered print

TEAM

Industry insiders, building tools we needed

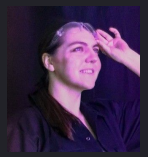
Casey Johnson

Cofounder & CEO

Design & Computation @ MIT.
SW/HW/Materials at Formlabs & Markforged.
Designing & building 3D printers since 14yo.

Cassie Lowell

Cofounder & CPO



Engineering @ Harvard, Lecturer @ MIT.
Print Process & Materials at Formlabs.
Led Product Strategy from prototype through production at multiple startups.

Employees & Advisors

Dan Thompson: Sr Full-Stack SW Engineer
EE/CS Masters, ex-Voxel8/Fitbit/Google

Jason Ang: Sr Mechanical Engineer
Purdue, Johnson & Johnson, Atomic Machines

Advisory Experience:
Director of Product Design @ Apple, VP of Eng @ Markforged, Technical Director @ Boston Dynamics, Tech Lead @ Formlabs, Robotics MechE Manager @ RAI Institute, Director of Product Innovation at BU EPIC, Serial Founder scaling to $5B+

TRACTION

Real customers who need printed parts

Completed Pilot: Boston Dynamics (12/25)

"The technology is **very compelling** – it makes metal printing **very accessible**, in a way that **no one else thus far has delivered**. Adding something like this to the the workflow would **alleviate our shop's strain** to a **remarkable degree**... [our engineers] can print a near net and finish on their own – **that's huge**."

– Gabe W., Additive Mfg Technologist
@ Boston Dynamics

500+ Qualified Sales Leads

Sourced from: Inbound inquiries, referrals, 1:1 trade show attendee conversations (no booth or printer showcase), customer discovery conversations, email list subscribers, LinkedIn page followers.

Letter of Intent to Purchase

From our contract manufacturer – they love the product so much they want their own!

fikst product development

Parts Alpha

Printing actual customer parts!

WHY NOW

Metal 3D Printing is about to have its moment

01 Next-gen software (GenAI CAD) designs optimal parts that can't be made

Optimization and simulation tools expanded the design space beyond what legacy fabrication workflows can handle.

Every generative design is a print job waiting to happen.

02 Desktop manufacturing goes mass-market

BambuLab proved desktop printers can achieve mass adoption (19K+ units pre-sold on Kickstarter; 1.5M units sold in 2025).

The revolution is stuck in plastic.
Metal is next.

1.5M units
shipped in 2024
(Bambu Lab alone)

03 Reshoring & manufacturing sovereignty

Tariff policies and geopolitical risk force engineers to bring fabrication in-house.
IP sensitivities require "US-made" manufacturing.

Engineers need on-premises metal, not 8-week overseas lead times.

04 Complexity of current solutions has limited adoption

Existing metal printers cost $250K–$10M, require dedicated facilities, inert gas infrastructure, and trained operators wearing extensive PPE.

Incumbents ran out of customers - the market is waiting for the right price.

BUSINESS MODEL

We make our money on the materials

CUSTOMER LIFETIME VALUE (AVG)

$62K

per printer, over 5 years

Hardware	**$5,000**
Materials (60 mo × avg $950/mo)	**$57,000**

Fleet scaling: multiply LTV by # of printers

HARDWARE

$5,000 per printer

Entry point below teams' credit card limit · 50% margin · Teams buy 1, then build a fleet – "print farm"

MATERIALS

$500-1500/mo

per active user ($3k ceiling at 100% utilization)

Defensible range across usage patterns · 82-86% gross margin · Recurring

ROADMAP

New Materials + SaaS SW Features (2027 + 2028)

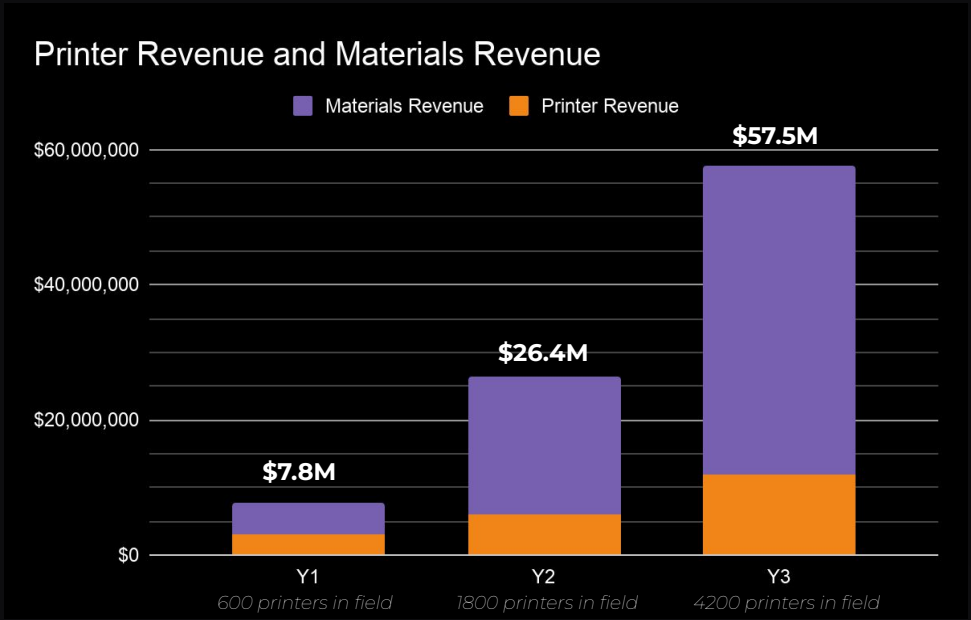
New value from existing hardware, even after launch.
Expand and unlock new verticals.

Launch Printer 02: Larger Format, More Materials, More Material Throughput (2029)

~$50K industrial-grade system with multi-part throughput and specialized alloys (aerospace).
Dramatically higher materials consumption per unit.

FINANCIAL PROJECTIONS

Hundreds of printers = Millions in recurring revenue



Printers

Y1 Initial Champion Customers
Y2 Scaled sales team → new customers + initial customers grow fleet
Y3 Maturing enterprise relationships

Materials

Y1 Copper + Tool Steel
Y2 Aluminum Launched, SW updates for increased throughput
Y3 Multi-Material Capabilities

TAM **$36B**

Global Metal 3D printing market (2030); 24.6% CAGR.

SAM **$4.2B**

Desktop-sized, metal 3D printing (HW & Materials).

CREATING EVEN BIGGER MARKETS

No SMB-type businesses can afford the cost of current metal systems. ***We unlock metal 3D printing for 160,000+ engineering firms in the US alone.***

IDEAL CUSTOMER PROFILE

We know exactly who will buy our machines, & how to find them

ICP: ENGINEERING FIRMS, USA-BASED

Location: USA

→ *Expand to EMEA, APAC once additional certifications, supply chain, & shipping options for these regions is firmly established.*

Sectors: R&D, Robotics, Energy / Heat Transfer, Tool/Die Manufacturing

→ *Future sectors: aerospace, automotive, medical*

Company Size: SMBs & Enterprise

SMBs: *Companies who love their plastic printers, but outsource metal part fabrication, and want to decrease cost/lead times.*

Enterprise: *Companies who were disappointed by their $250K-$2M prior metal systems, or who looked into systems but chose not to adopt because of the infrastructure burden.*

Budget: $5K MSRP for the device is **just under the corporate credit card limit – purchase device without arguing with the Finance Department.**

Value Prop: In-house manufacturing **reduces cost** (SMB focus), **infrastructure burden** (Enterprise), and **lead time** (both).

GO TO MARKET

01 Mechanically minded designers and engineers **trust what they can see and feel themselves.**

→ **Trade Shows:** where a high volume of customers can feel quality for themselves.
→ **Hardware Events:** a part in our pockets at local networking events has already created hundreds of leads.
→ **Sample Parts:** for the people we can't physically meet, we can mail them a part to inspect that showcases our capabilities.

02 Engineers **won't shut up about tools they love, and trust their established peers' opinions.**

→ **UGC Content:** Leverage trusted 3DP, robotics, and tech creators whose product reviews provide brand credibility and highlight product uniqueness.
→ **Socials:** Our parts and machines make creating eye-catching visual content easy. Comments sections are great places to publicly answer questions and brag about the product.
→ **Partnership Case Studies:** Leverage our earliest champions to create stories around ROI & applications, which gets future customers thinking about how they'd use the printer.
→ **Word of Mouth:** Engineers ask other engineers which tools to buy. If we nail reliability and quality with our early customers, we'll be top of their recommendations list.

Fundraise

$5M Seed @ $23M POST

Round Details:

Term sheet signed with lead investor

$3.1M committed

Closing end of september

$250k minimum check size

Use of funds:

Hire marketing/sales resources

Execute GTM plan

Scale production facility

Product launch Q2 2027 at RAPID/TCT

contact:

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