

INVEST IN ATOM LIMBS

Revolutionary prosthetics to end physical disability 🦾

LEAD INVESTOR



Daniel Ha

Atom Limbs is advancing prosthetic technology in ways that resonate with our core values of innovation and practical impact. Their work on arm technology is set to significantly improve the lives of individuals requiring prosthetics, marking a meaningful step forward in this field. The team at Atom Limbs is robust, possessing both the technical expertise and the visionary foresight required to drive this change. Entering this market is a complex endeavor, laden with both technical and regulatory hurdles. Yet, Atom Limbs has demonstrated a solid grasp of the challenges ahead, coupled with a pragmatic approach to overcoming them. Their potential extends beyond just leading in the market; it's about forging a new standard in prosthetic functionality and accessibility. Our investment is an expression of confidence in Atom Limbs' ability to navigate these complexities, and to play a significant role in advancing wearable prosthetic technology.

Invested \$10,000 this round

atomlimbs.com

Palo Alto CA



Robotics

Technology

Healthcare

B2C

Biotech

Highlights

- 1 CEO sold last company Bebo to Amazon & has scaled companies to 1 billion users
- 2 Led by world-class ex-leadership from Apple, Oculus, Zoox, IDEO, and Neuralink with 1,000+ patents
- 3 Team's track record includes bringing first iPhone & iMac to market
- 4 Team has deep experience in FDA and regulatory, successfully commercialized multiple medical devices
- 5 World's first mind-controlled robotic wearable with individual finger control & basic sense of touch
- 6 \$180M+ pipeline of 9,000 qualified buyers
- 7 Positioned to disrupt the fast-growing \$800B physical disability market
- 8 Backed by Moai Capital, J4 Ventures, angels incl. YC Co-Founder Trevor Blackwell & Anthony Pompliano

Our Team



Tyler Hayes



Atom Limbs Co-Founder & CEO

Serial entrepreneur. Bebo Co-Founder & COO (acquired by Amazon). Employee #10 at YC-backed Disqus (acquired by Zeta). Scaled companies from 0-100 employees and to 1 billion users. Funded by top VCs Village Global, MXB, and Techstars. Psychology BA.

Atom is my 4th company and hopefully my last company — my life mission is to end disability. After selling Bebo to Amazon, I wanted to return to big meaningful problems impactful to all of humanity. *No one* should have to live with a permanent injury or disability. We have reusable rockets and electric cars... it's time for artificial limbs.



Doug Satzger Co-Founder & Chief Design Officer

Iconic product creator. Industrial Design Executive with history at Apple, Intel, Palm & IDEO. Led teams responsible for the first iMac & iPhone under CEO Steve Jobs, and managed entire iPod, iMac & iPad portfolio. Named on 500+ patents. Design BA.



Eric Monsef Co-Founder & Chief Technology Officer

Senior tech pioneer previously with Apple, HP & Glydways. Created Apple's Core Hardware Team of 180 Deep Engineers, managed \$250M budget & led architecture / design on the original MacBook & 11 MacBook Pros. Named on 40+ patents. Engineering BS, MS.



Jayant Menon, MD Medical Director

Trauma neurosurgeon & clinical associate professor at Stanford. Previously Director of Medical Operations at Neuralink, & Director of Health at IDEO. Stanford Fellowship, UCSD Medical Internship & Residency.



Michael Hillman VP Regulatory

Innovative hardware visionary. Previously VP Hardware Engineering; Zoox, VP Hardware, Lime & Boosted; Head of Hardware, Oculus. At Apple, led iMac & Mac Pro. Medical devices at Dexide, Vericel, & Baxter. 80+ patents. Biomedical engineering BS.



Josh Funamura Head of Physical Design



Product design leader, previously at Apple, Delve, & Otto. Led mechanical design for novel medical, complex electromechanical, & high volume connector & battery devices. Named on 20+ patents. Engineering BS.



Kar-Han Tan Controls Lead

Seasoned Artificial Intelligence, Robotics & Computer Vision expert. Former VP of Engineering at NovuMind, Managed R&D at Singtel & Epson, Head of Advanced Development at HP. Named on 60+ patents and 5000+ citations. Computer Science BS, MS, & PhD.



Greg Springer

R&D Lead

Engineering exec frequently sought out to solve the hardest problems. Previously with Apple, Google, & Glydways. At Apple, Director of HW Engineering - Core Architecture, and led Thunderbolt standard development. Named on 50+ patents. Engineering BS.



Michelle Stolzman

Engineering Intern

Talented biologist trained in Neurobiology, Genetics, Cell Biology, and Virology. Equipped with robust lab and technical expertise. Works directly with amputees on training and myoelectric tools. Molecular, Cellular, and Developmental Biology UCSB BS.

Why Atom Limbs?





Atom Limbs is on a mission to revolutionize prosthetics.

Backed by Moai Capital, J4 Ventures, Village Global, angels including Trevor Blackwell and Anthony Pompliano, and countless healthcare professionals, Atom Limbs' pioneering approach to the world's first artificial human arm is on track to transform the \$800B+ physical disability industry.

We're giving 65M+ limb-different people their limbs back. With Atom Limbs, prosthetics aren't just functional, they're transformational.

Over 65M people
have limb loss



More than 65M people in the world — including 4M in the United States — live

without a limb. 1.5M people undergo amputation every single year.

By 2050, instances of limb loss are projected to double. Yet only 5% of people with limb loss have access to prosthetics, many of which still rely on technology that's over a century old, dating back to 1912!



Most people with
arm loss still use
hooks from 1912

Despite the rapid technological progress in other sectors, the prosthetics industry lags far behind. Most attachments are still assembled by hand. Furthermore, while cable-powered "hook" arms are available for \$30,000, the few semi-robotic options that are available are expensive, averaging \$150,000, while insurance reimbursements rarely exceed \$20,000.

The average lifetime healthcare costs for an amputee patient exceed \$500,000, not including social costs.

"Prosthetic arm technology is



so limited that I become **more disabled** when I wear one ”

Despite the rapid technological progress in other sectors, the prosthetics industry lags far behind. Most attachments are still assembled by hand. Furthermore, while cable-powered “hook” arms are available for \$30,000, the few semi-robotic options that are available are expensive, averaging \$150,000, while insurance reimbursements rarely exceed \$20,000.

The average lifetime healthcare costs for an amputee patient exceed \$500,000, not including social costs.

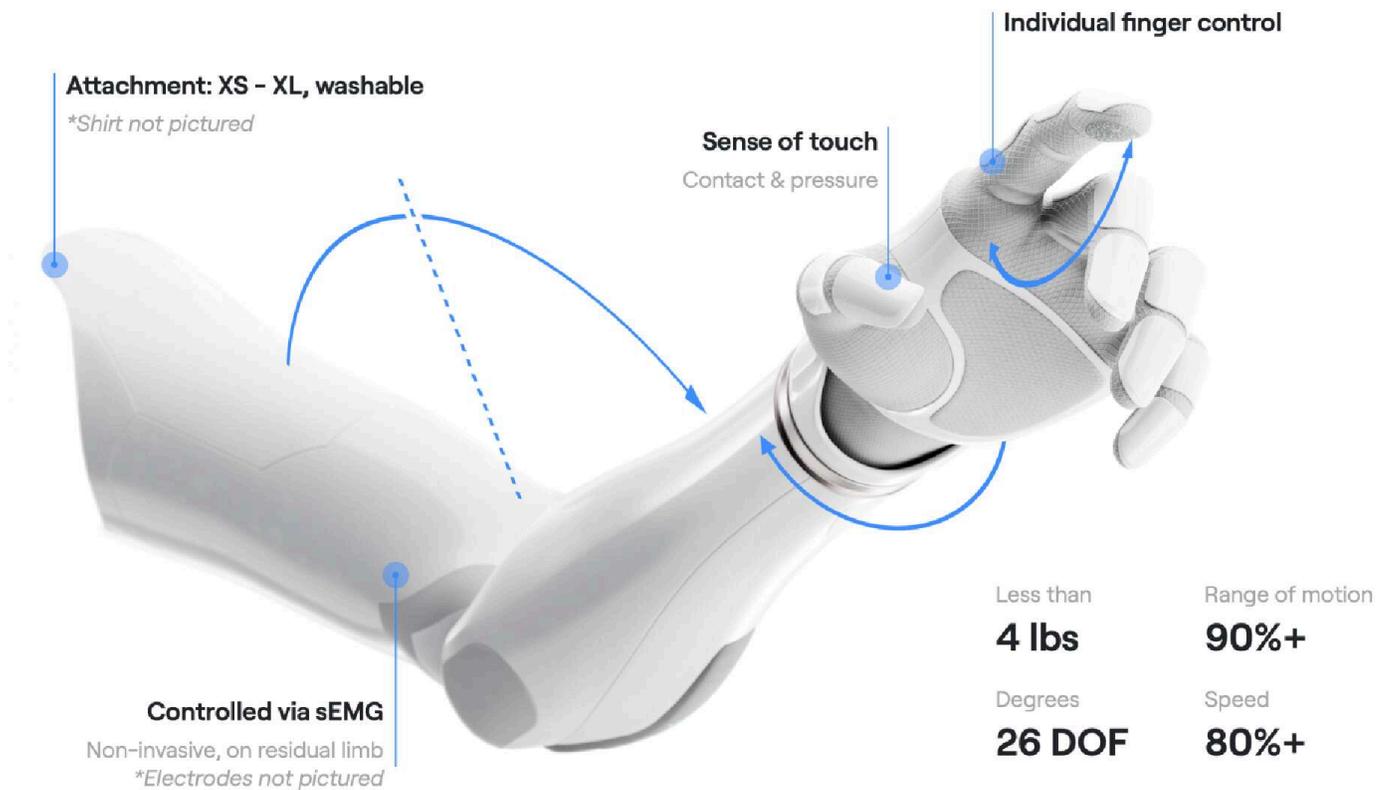
“Prosthetic arm technology is so limited that I become **more disabled** when I wear one ”





Our first and flagship prototype, the Atom Touch, is the world’s first artificial human arm. This groundbreaking, non-invasive, non-invasively neurally-controlled robotic system emulates a near-full range of human motion and even provides the user with basic touch feedback.

The control is made possible by sEMG and machine learning, powered by proprietary non-invasive electrodes placed on the residual limb. The incorporation of haptic feedback further refines the user’s overall control by providing touch sensations. Users can train the Atom Touch in less than 5 minutes.



We’ve adopted modern apparel aesthetics and a lightweight design, making it perfect for all-day wear.

Our design integrates an “apparel-like” attachment system, including a cuff and socketed shirt, offering the most natural look and feel on the market.

Moreover, we aim for our attachments are durable, breathable, and machine-washable, with inclusive sizing ranging from XS to XL.

At Atom, our view is that artificial limbs should feel near-indistinguishable from natural ones.

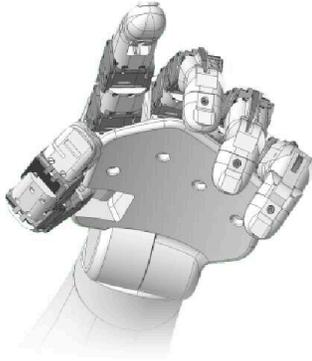
Our mind-controlled arm mimics the intuitive movements of a natural limb

When a person moves, their brain sends signals down the spinal cord and out their peripheral nerves that innervate the muscles in their arm. After limb loss, these nerves remain functional but lack a tangible output.

Atom Touch's innovative cuff, designed to be worn around the user's remaining residual limb, captures electrical activity from this neuromuscular communication, and Atom's machine learning platform translates these signals into intuitive gestures.

Load-sensing in the hand provides users a basic sense of touch, including contact and pressure, using haptic feedback relayed to their residual limb. As touch, not just visual, feedback is one of the main inputs for better motor control, this gives users more confidence and peace-of-mind in doing everyday activities.

Atom Touch is the first artificial limb in its class, leading in 4 areas



Robotics

Human-dexterity &
human-scale



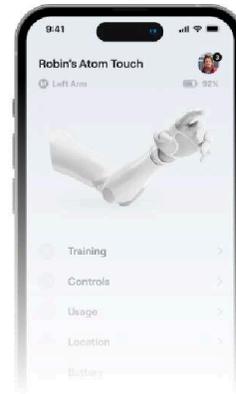
Neural

Non-invasive &
high efficacy



Attachment

Modern apparel,
durable & lightweight



Controls

User-driven with smart
software assistance

Atom Touch stands alone as the only artificial hand that enables individual finger movement, making actions like grasping, gripping, feel natural again.

Our proprietary miniaturized motors, paired with our overall modular design, offers users both gross (elbow/wrist) and fine (fingers) control for human-like dexterity.



Jason
Prototype test, June 2023



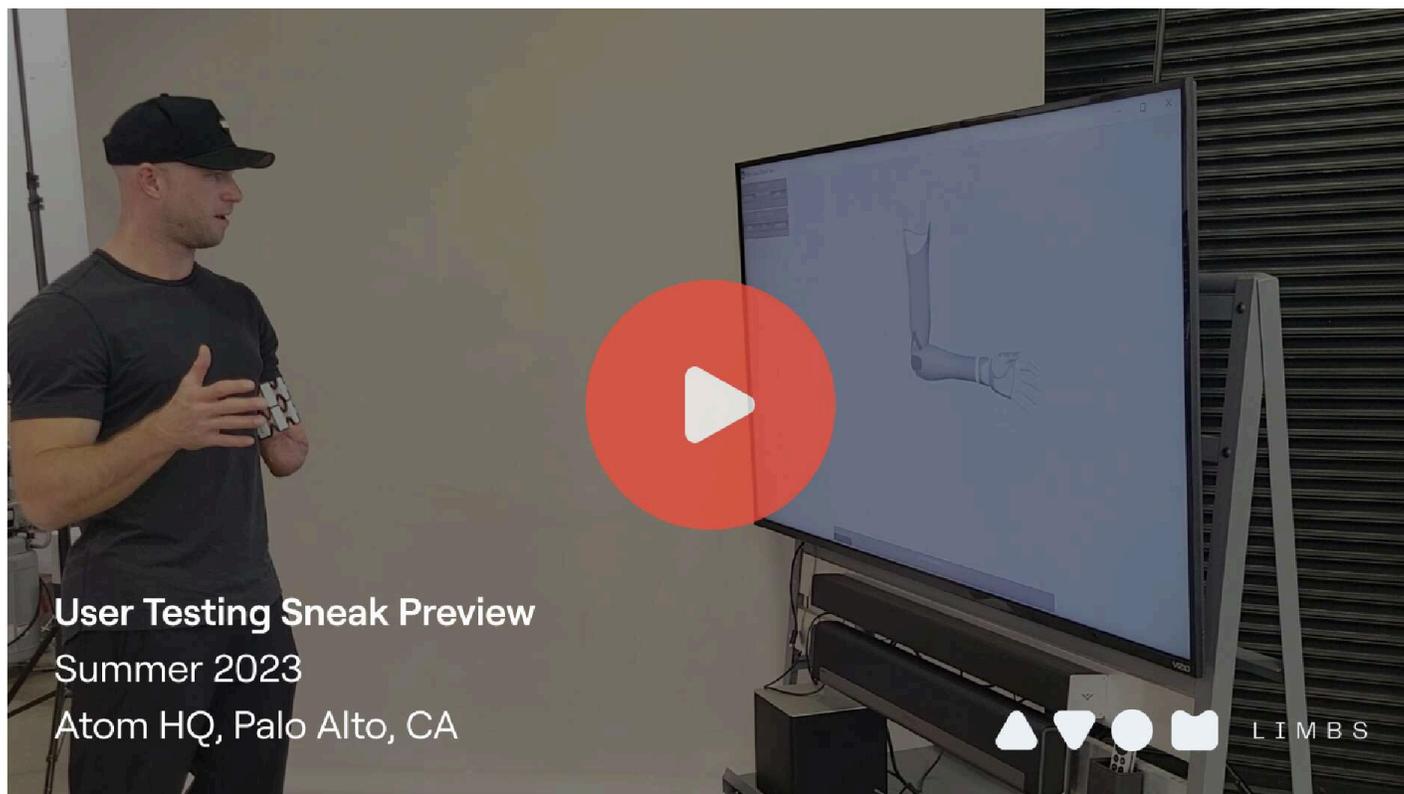
Axel
Prototype test, September 2023

Leveraging machine learning and AI, Atom Touch is near-biomimetic, ensuring an intuitive experience with minimal cognitive effort. Despite weighing under 4 lbs, the Atom Touch offers near-parity with the human arm, with over a 90% range of motion and all 26 degrees of freedom. The Atom Touch is also exceptionally responsive, nearly as fast as a human arm.

Our focus on balance within the shirt attachment aims to show a marked reduction in back pain and musculoskeletal issues, which are an almost-universal issue among people with limb loss, both those who do and don't prosthetics. Our shirt is designed to effectively distribute the weight and forces of the arm, using semi-rigid materials, stiction, and compression. Our goal is to redefine access without sacrificing comfort.

Stunning results: 100% of testers have moved all joints

No one has ever done this in a production arm – only Atom



Stunning results: 100% of testers have moved all joints

No one has ever done this in a production arm – only Atom

Jun 2022

First Neural Eval

Hypothesis:

Atom ML can differentiate all joints for **one person** with arm loss.

Conclusion: Yes! 

Jun 2023

5 Users Moved All Joints

Hypothesis:

Atom ML + arm enable **full control** of all arm joints including fingers.

Conclusion: Yes! 

Feb 2023

20 Users Evaluated

Hypothesis:

Atom ML can differentiate all joints for anyone with arm loss.

Conclusion: Yes! ✓

H2 2023

1 User Does Daily Activities

Hypothesis:

Atom ML + arm enable *daily activities and living*.

Conclusion: Coming Soon

\$180M+ pipeline of 9000+ qualified buyers can't wait for an Atom Touch



Atom Limbs has gained significant traction, and we aren't slowing down.

We've received rave reviews from over 30 user-testers and already have a \$180 million pipeline with 9,000+ eager buyers. Our waitlist is consistently growing, showing a ~15% increase quarterly. Additionally, there's notable demand for leg

products, with over 1,000 inquiries, despite having not announced a leg product yet. We're humbled by the overwhelming interest.

Atom has already had 30+ user-testers who gave **rave reviews**

"I canceled my \$150,000 myoelectric arm order the day after I used your prototype."

"I'm amazed that the separation was there in finger movement."



Strategically, we've built a solid customer acquisition engine geared for market entry and long-term competitiveness. We're in active talks with major clinics, aiming to facilitate seamless transitions for patients to our innovative prosthetics, as well as a clear path to reimbursement.

Our team of Silicon Valley's top leaders have **created \$1T+ in value**





Tyler Hayes

Co-founder & CEO

Serial entrepreneur. Bebo Co-Founder & COO (acquired by Amazon). Employee #10 at YC-backed Disqus (acquired by Zeta). Scaled companies from 0-100 employees and to 1 billion users. Psychology BA.



Eric Monsef

Co-founder & CTO

Senior tech pioneer previously at Apple, HP & Glydways. Created Apple's Core HW team, managed \$250M budget, led architecture & design on all MacBooks. Eric is named on 40+ patents. Engineering BS, MS.



Doug Satzger

Co-founder & CDO

Iconic product creator & design leader previously at Apple, Intel, Palm & IDEO. Led teams responsible for first iMac & iPhone, managed entire iPod, iMac & iPad portfolio. Named on 500+ patents. Design BA.



Michael Hillman

VP, Regulatory

Previously VP Hardware Engineering, Zoox; VP Hardware, Lime & Boosted; Head of Hardware, Oculus. At Apple, led iMac & Mac Pro. Medical devices at Dexide, Vericel, and Baxter. 80+ patents. Biomedical engineering BS.

over \$1 trillion in value and have been named on 1,000+ patents.

The first artificial human arm in an **\$800B market ripe for disruption**

Human lifespan expectancy has increased 200% – from 40 years to 80 years – in the last 150 years. As we live longer, the global demand for artificial limbs is also rising, with over 65 million potential users worldwide. These individuals require a lifetime of artificial limbs, accessories, therapeutic services, and medical care.



Stump



Passive hand



Hook

95% of the market

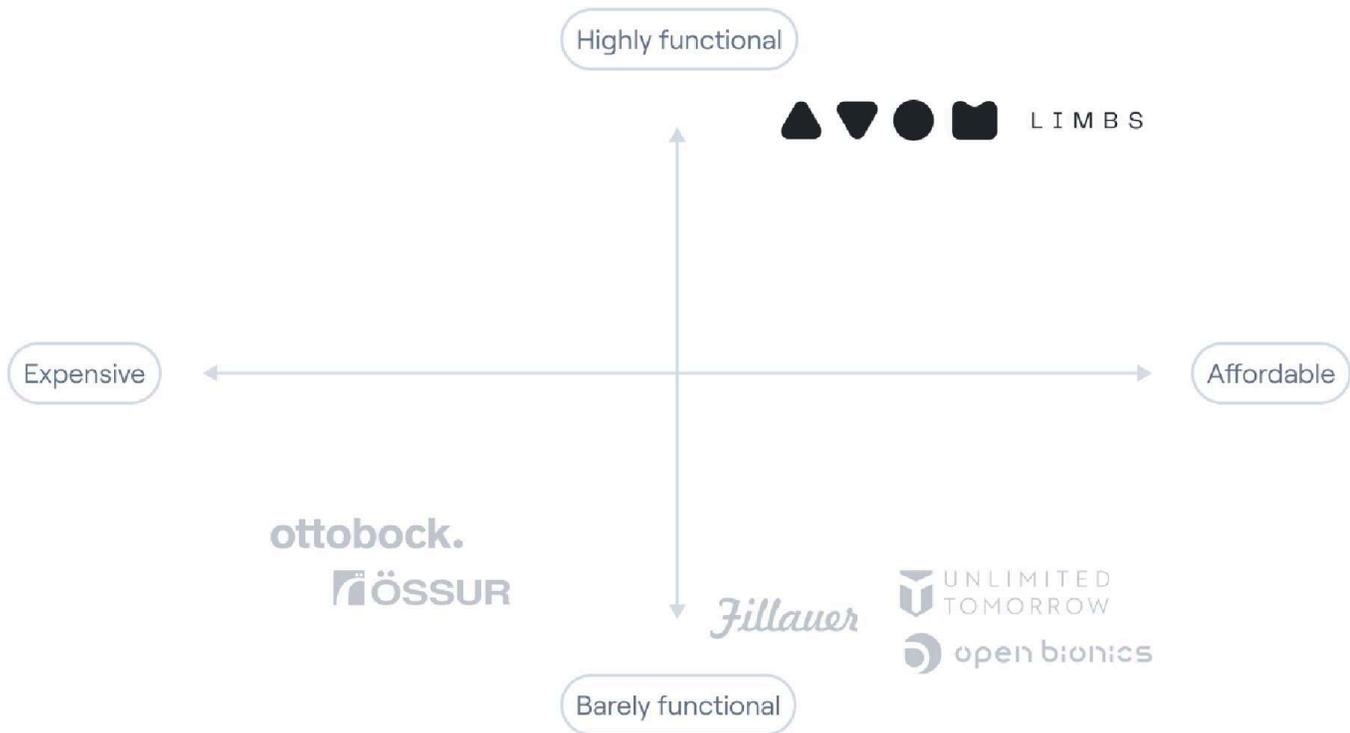


Myoelectric hand

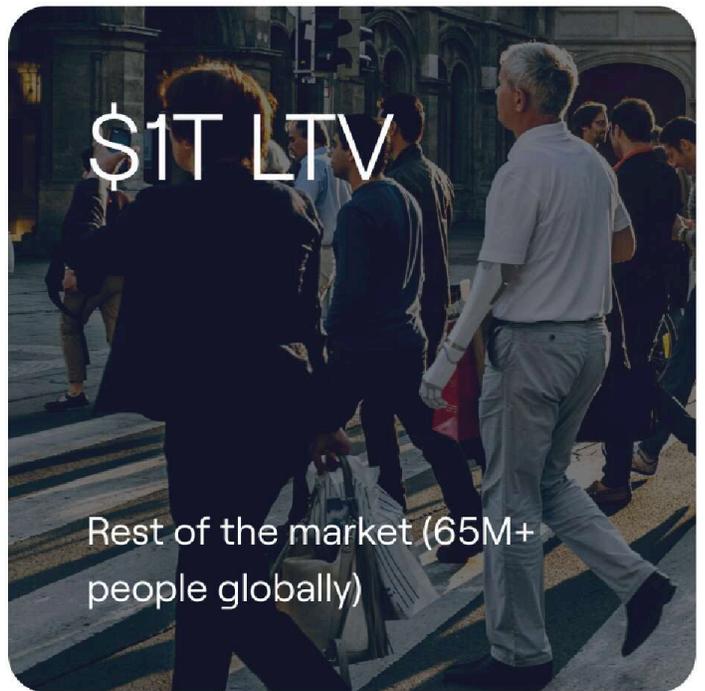
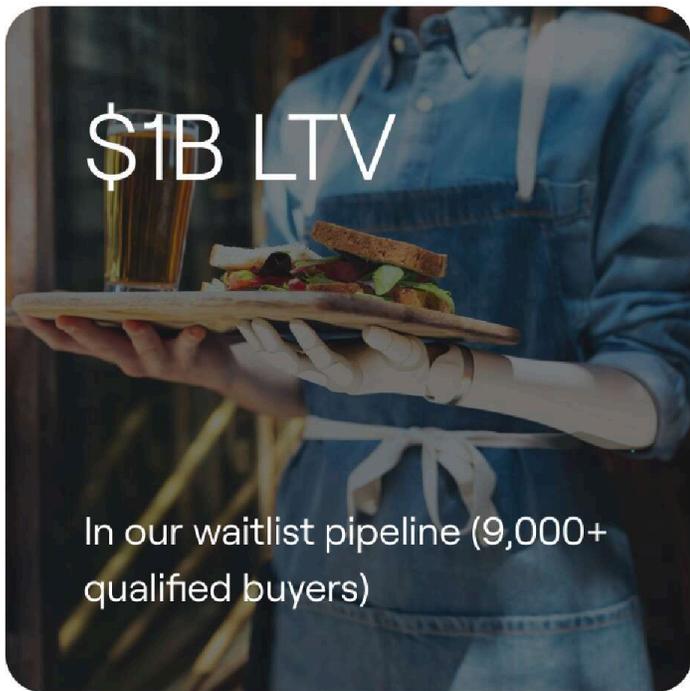
Lack of affordability

Basic hook prosthetics make up 95% of the market. Myoelectric hands, despite their technological edge, are rarely adopted due to their high cost. Even then, no myoelectric hand in the world offers individual finger control, and there is no fully-myoelectric *arm* with offering all joints... at all. Passive hands, lacking in functionality, fail to compete beyond simple cosmetic appearance.

Atom is poised to dominate the market as we address this significant gap in prosthetic affordability and functionality. Atom has the potential to transform the lives of millions affected not just by limb loss, but by conditions like severe paralysis due to brain and spinal cord injuries, nerve damage. and mobility impairments.



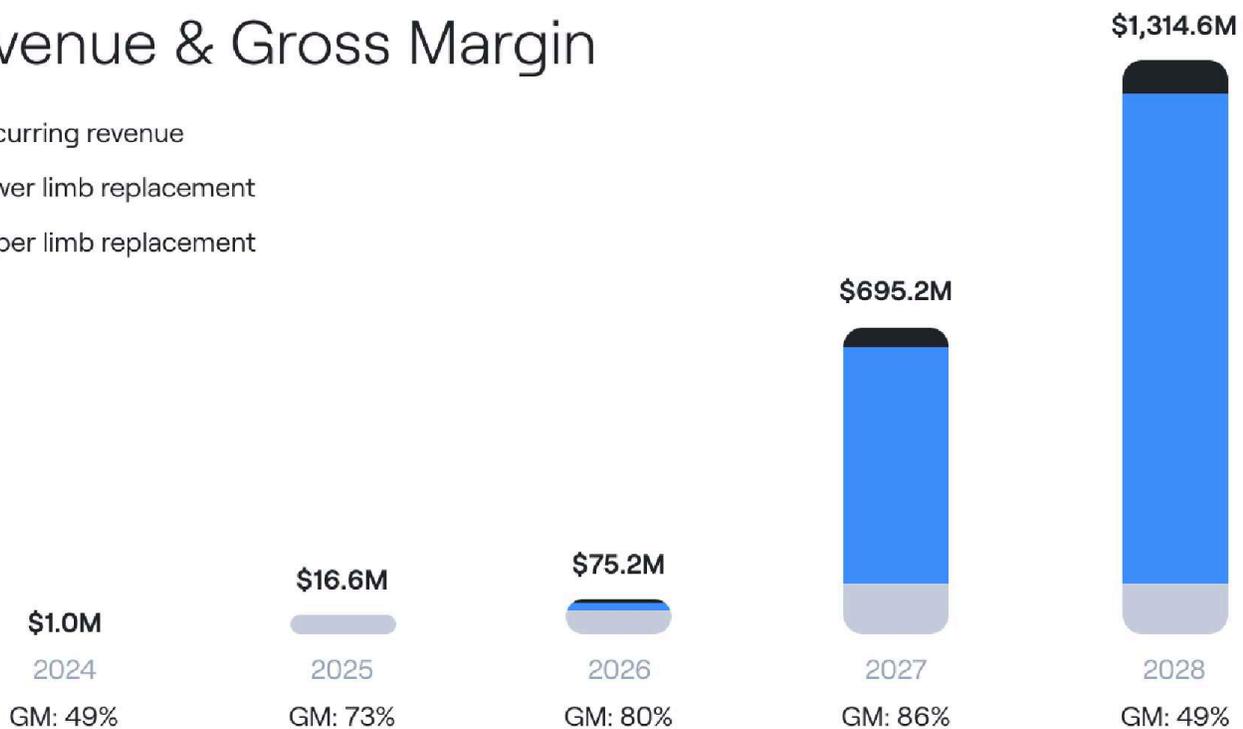
What Tesla (\$900B) did for cars, Atom Limbs can do for prosthetics. Our qualified buyer list LTV is already valued at \$1B. The population of 65M suffering from limb loss represents an underserved market with an LTV of \$1T.



As affordable as a hook for **confident reimbursement**

Revenue & Gross Margin

- Recurring revenue
- Lower limb replacement
- Upper limb replacement



Note: future revenue projections are not guaranteed.

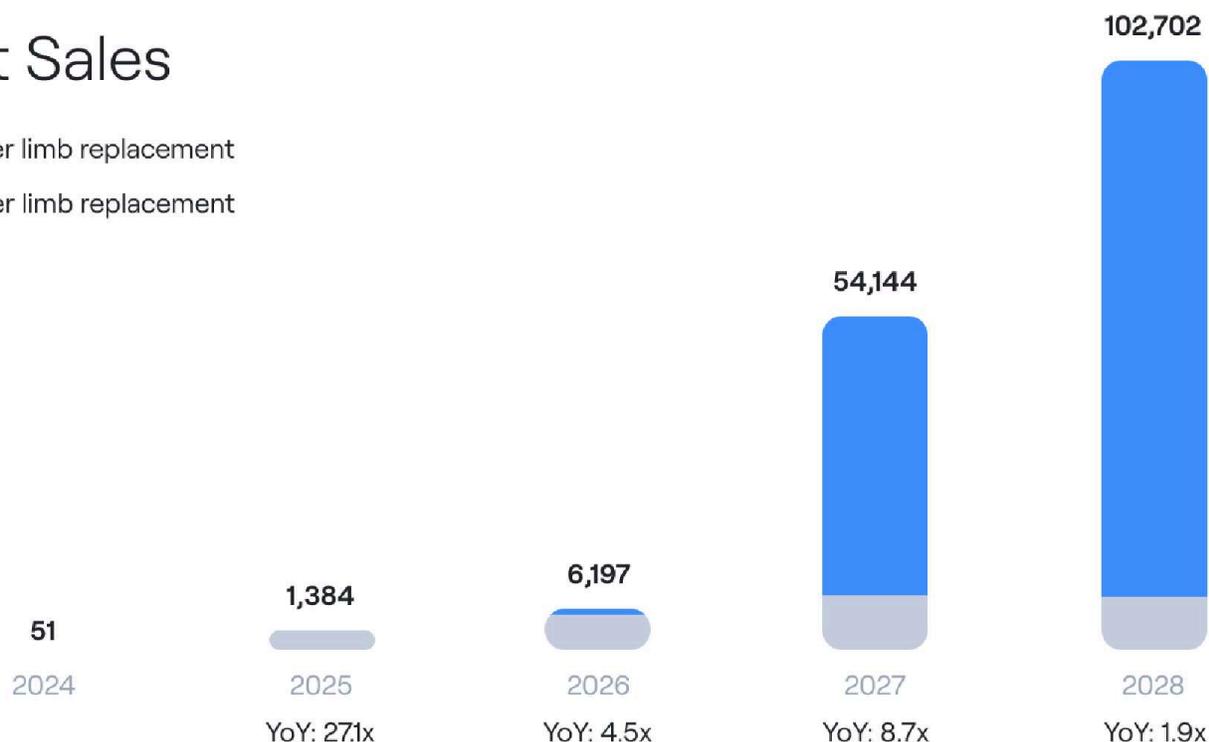
We aim to launch the Atom Touch in late 2024 to early 2025.

As the Atom Touch makes its debut, its top-tier functionality and competitive pricing has the potential to revolutionize the prosthetics industry, with skyrocketing revenues.

Given that we aim for the same reimbursement pathways as today's prosthetics, and that insurance providers routinely cover prosthetic replacements every 3-5 years, our prospects for reimbursement are promising.

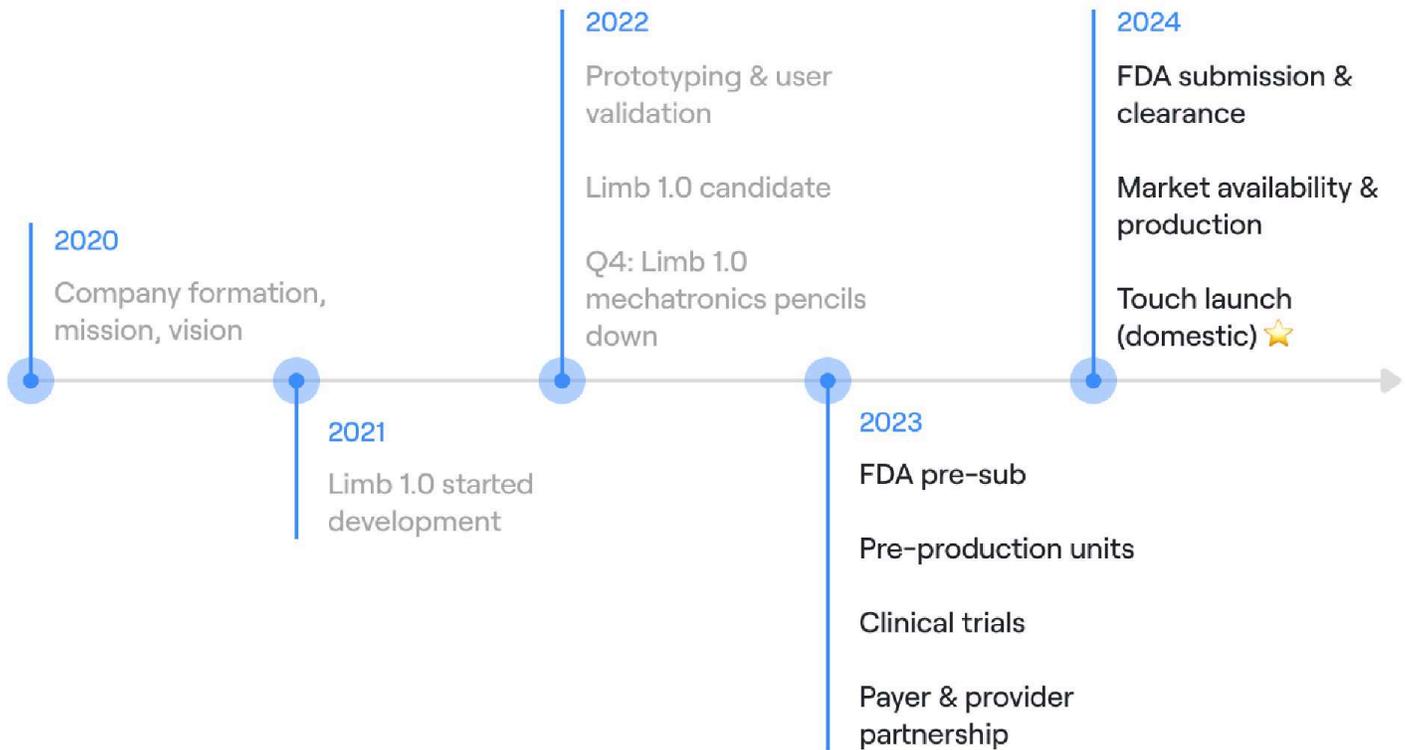
Unit Sales

- Lower limb replacement
- Upper limb replacement



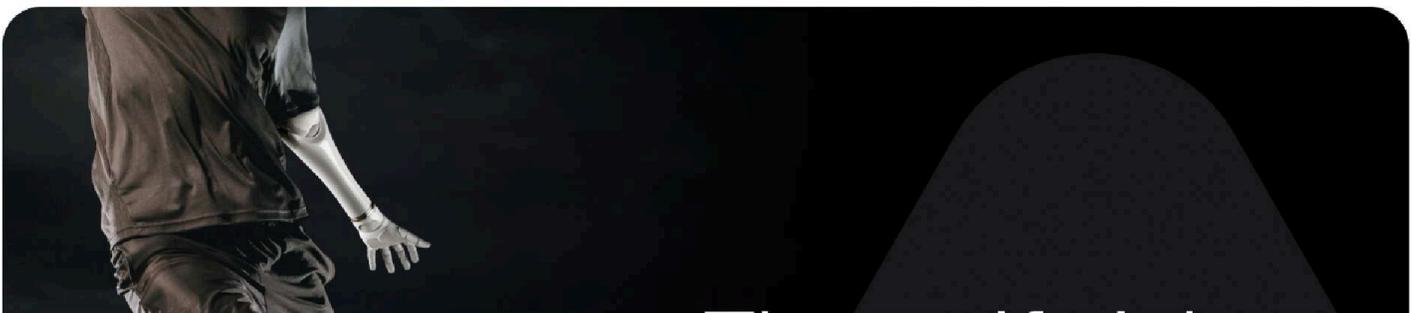
We have a clear and direct
path to commercialization

To date, Atom Limbs has invested in developing and testing prototypes. Our current round is geared towards getting our prototype ready for FDA filing and strategically positioning ourselves for a Series A round in 2024.



Capital raised will boost R&D, kick off clinical trials, enhance pre-production, establish vital partnerships, and ensure we are ready for FDA submission, critical to our go-to-market success.

We've also partnered with a contract manufacturer — a worldwide leader in precision, industrial motors and control systems — to co-develop and manufacture our proprietary motor actuators and controls.





The artificial
body **is here**

With a rising demographic living longer but grappling with chronic conditions, the demand for advanced artificial limbs has never been higher.

Join us and invest alongside leading VCs including Moai Capital, J4 Ventures, and Village Global, and angels including Trevor Blackwell and Anthony Pompliano.



We're ending
physical disability.
Join us.

