

NAKED
PROSTHETICS

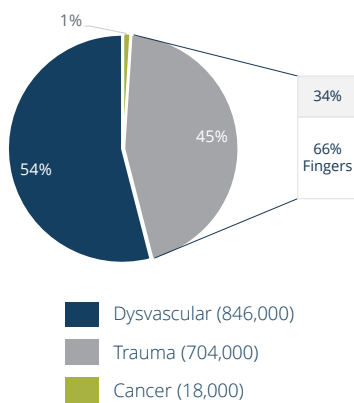
Getting Finger Amputees Back to Work 2023

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Digit Loss – Prevalence & Etiology

1.6 Million Living with
Limb Loss



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Ziegler-Graham K, MacKenzie EJ, Ephraim PL, Travison TG, Brookmeyer R. Estimating the prevalence of limb loss in the United States: 2005 to 2050. Arch Phys Med Rehabil. 2008;89(3):422-29.

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Digit Loss – Prevalence & Etiology



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Stevens P. Updates on prosthetic rehabilitation following partial hand amputation, The O&P Edge. 2018;17(9):44-52

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Digit Loss – Prevalence & Etiology

Predominantly
Working-Aged Men



75% Heavy Manual Laborers
Can't Return to Job



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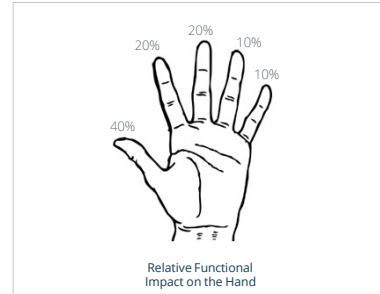
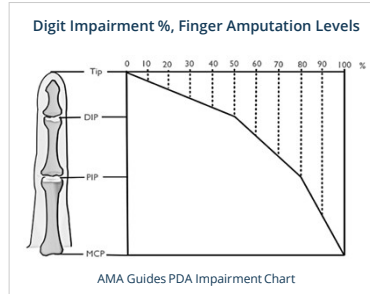
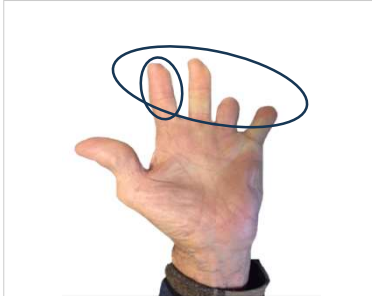
Burger H, Maver T, Marincek C. Partial hand amputation and work. Dis Rehab. 2007;29(17):1371-21.

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Level of Impairment



52%

Impairment of Whole Person

10%

Impairment of Hand

9%

Impairment of Upper Extremity

5%

Impairment of Whole Person

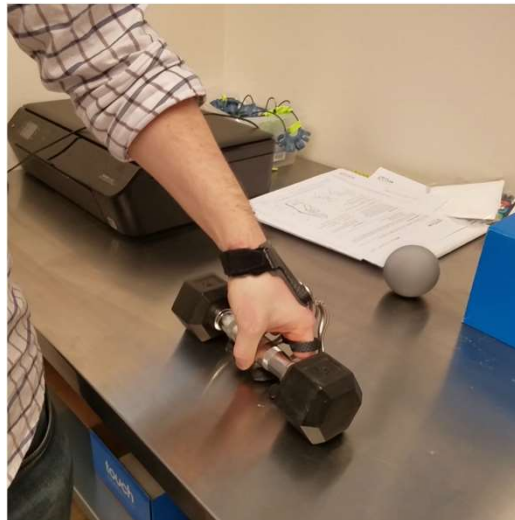
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NAKED PROSTHETICS | Optimized Mechanisms



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NAKED PROSTHETICS | Intuitive Design

Goals

Using Cutting Utensils



Without Prosthesis



With Custom
MCPDriver

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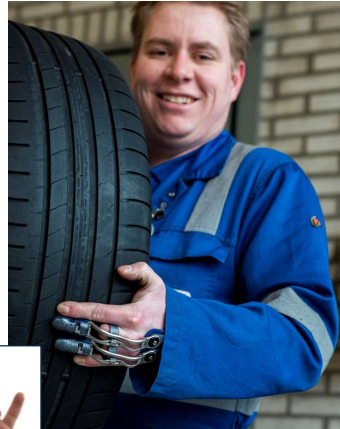
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NAKED PROSTHETICS | Object Manipulation

Goals

Return to Work



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NAKED PROSTHETICS | Responsive Grasp



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NAKED PROSTHETICS' Body-Driven Devices



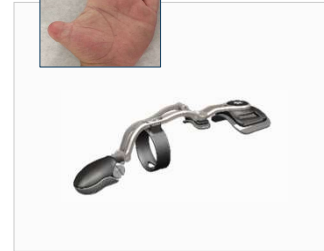
PIPDriver

Gen 2



MCPDriver

Gen 2



ThumbDriver

Gen 2



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PIPDriver™ | Gen 2

Materials:

- Nylon 12
- Silicone
- Titanium

Heat Resistance:

- Nylon 347°F | 175°C
- Silicone 400°F | 204°C
- Adhesive 356°F | 180°C

Crush Strength:

≥ 60 lbs | ≥ 27 kg

Force Output:

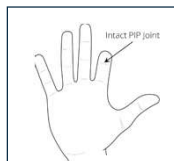
Same as Intact Finger

Resistant:

- Water
- Alcohol
- Acetone
- Isopropanol

Service Life:

3 years



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MCPDriver™ | Gen 2

Materials:

- Nylon 12
- Silicone
- Titanium
- SS 316

Heat Resistance:

- Nylon 347°F | 175°C
- Silicone 400°F | 204°C
- Adhesive 356°F | 180°C

Tensile Strength:

≥ 80 lbs | ≥ 36 kg

Force Output:

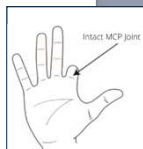
~2/3 input (9-12 lbs | 4-5 kg)

Resistant:

- Water
- Alcohol
- Acetone
- Isopropanol

Service Life:

3 years



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MCPDriver™ | Gen 2



"I used to be the guy in the room who lost all his fingers, and now I'm the guy with the cool hand."

– Nick, AMBASSADOR



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ThumbDriver™

Materials:

- Nylon 12
- Silicone
- Titanium
- SS 316

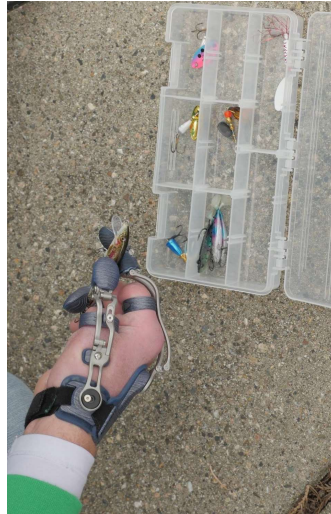
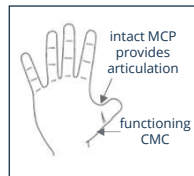
Heat Resistance:

- Nylon 347°F | 175°C
- Silicone 400°F | 204°C
- Adhesive 356°F | 180°C

Resistant:

- Water
- Alcohol
- Acetone
- Isopropanol

Service Life:
3 years



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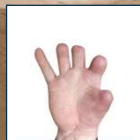
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Back to Work



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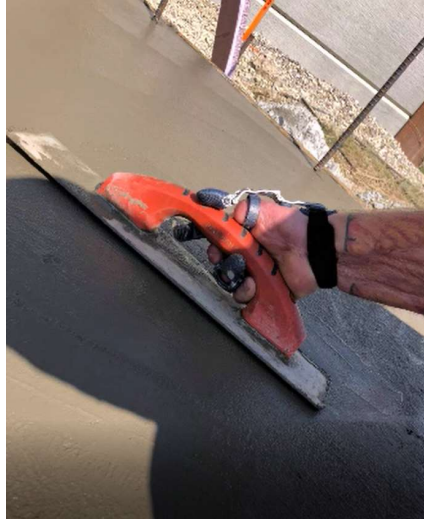
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Back to Work



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GripLock Finger™
OUR FIRST METACARPAL SOLUTION

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GripLock Finger™

Materials:

- Nylon 12
- Silicone
- Case
Hardened AL
- SS 417

Heat Resistance:

- Nylon 347°F | 175°C
- Silicone 400°F | 204°C
- Adhesive 356°F | 180°C

Load Rating:

200+ lbs. | 90+ kg

Device Weight:

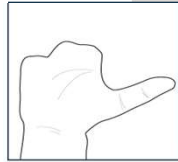
Starting at 25g

Resistant:

- Water
- Alcohol
- Acetone
- Isopropanol

Cycle Life:

300,000 Cycles | ~ 3 Years

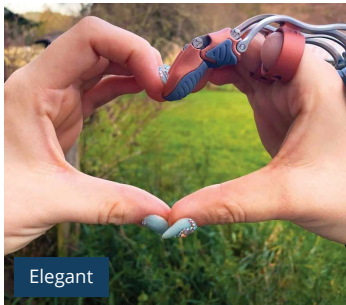


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NAKED PROSTHETICS' Design Attributes



Elegant



Intuitive



Waterproof & Dirt-, Heat-, Chemical-Resistant



Strong



Custom

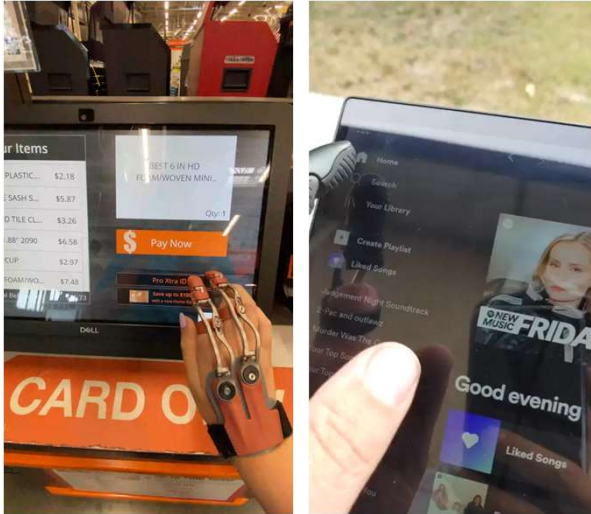


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Conductive Tip



Our new **Conductive Tip** couples with the body, allowing the end-user to interface with smartphones, tablets, and other touch-related systems with relative ease.

Learn more about this new technology by reaching out to the Naked Prosthetics team: info@npdevices.com | 360-915-9724



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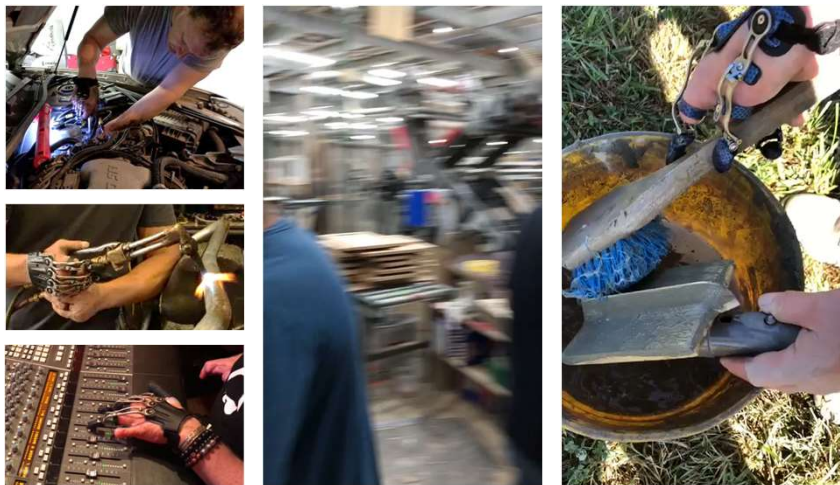
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Pre-Evaluation | Patient Goals

Vocation



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Community



FINGER AMPUTEE PEER + SUPPORT GROUP

(For Amputees, Caregivers & Industry Professionals)



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Community



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Your Upper Limb Specialist

**OUR MISSION**

Limb Lab is an independently-owned and -operated prosthetic and orthotic company that provides personal, creative, and cutting-edge solutions to the functional challenges of limb loss and injury.

We thrive on artistry and innovation to create the right tool and the right fit. We promise to listen to you, to respect you, to support and encourage you, and to treat you, and the people who support you, like family. We can't wait to create with you!



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Your Upper Limb Specialist

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F: 515-461-9062

**IOWA CITY, IA**

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Your Upper Limb Specialist



JASON DEAN – CERTIFIED PROSTHETIST ORTHOTIST, MARKET PRESIDENT

jason@limblab.com

My high school shop teacher introduced me to prosthetics and orthotics. I loved building just about anything, from furniture to cabinets to houses. I went on to complete my undergraduate studies at Doane College, where I volunteered and became a technician for a prosthetic company in Lincoln. I was sold right then and there. I loved fabricating, fitting, and meeting everyone who came into the office.

I returned to Lincoln in 2005 and began managing, creating, and building relationships in the Lincoln area. Few things make me feel better – or more proud – than creating devices that affect people in the direct and personal ways that my work does.

Few things make me feel better – or more proud – than creating devices that affect people in the direct and personal ways that my work does.

JASON DEAN



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Case Study #1

38 y.o. male

Bilateral frostbite February 2021

Bilateral partial finger amputations March 2021



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Case Study #1

Left hand dominant

Primary goals: Restore pinch, care for 3 daughters living with him, return to work as a cook at a restaurant.



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case study #1

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Case Study #2

30 y.o. male

Motorcycle accident May 2020. Motorcycle caught fire & patient sustained full thickness burns to bilateral upper extremity.

Bilateral partial finger amputations: Right digits 1-5 & Left digits 3-4.

Utilized mechanical ratcheting digits until January 2021 when patient underwent web space deepening surgery for right hand to allow increased function and movement.



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case study #2

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Case Study #2

Right hand dominant

Primary goals: Restore pinch, regain independence with self care tasks, return to hobbies of agate picking, return to work as a driver at a fish delivery company.



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Case Study #3

62-year-old male
Work related accident

- October of 2019
- Machinery failure of a piece of plastic molding equipment fell when it broke and severed his 2nd, 3rd, 4th digits, partially cut the 5th and was surgically attached and presently as limited ROM.

Prosthetic intervention began January 2020



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Case Study #3

- Right hand dominant
- Multiple devices:
 - Silicone functional passive
 - Mechanical locking digits
- Primary goals:
 - Restore ability to grasp, operate machinery at work which consists of levers, switches, and buttons, bi manual compliant grasp.
 - Lives alone and needs to perform daily hygiene, dressing, cooking for himself, cleaning.
 - Throw Darts: He is a very avid and a competitive dart player.



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Contact Us!

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 F: 515-461-9062

IOWA CITY, IA

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 CORALVILLE, IA 52241
 P: 319-381-2013
 F: 319-249-5583

REFER YOUR PATIENT

We love to connect with people who are on the go, who refuse to be limited by limb difference. Learn about collaborating with Limb Lab. We promise to create a bond that helps your patient improve functionality and mobility.

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Thank you!

THE PERFECT BOND.

IT DOESN'T JUST GIVE YOU CONFIDENCE IN YOUR DEVICE.
THE RIGHT FIT PUTS YOU IN CONTROL OF FUNCTION.
BALANCE RESTORES MOVEMENT FOR EVERY TASK,
INCLUDING GETTING BACK TO WHAT YOU LOVE MOST. SO,
WHAT DO YOU WANT TO DO?



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