


Wheelchairs powered by

**SOFTWHEEL**

Introducing the NEW

**SOFTWHEEL 3**



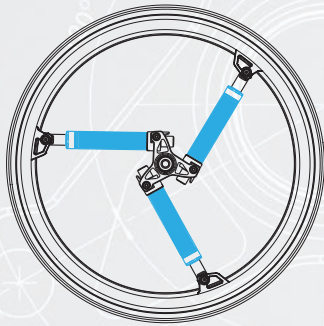
The background of the slide is a dark blue technical drawing of a wheel suspension component. The drawing shows various parts of the suspension, including a hub, a knuckle, and a control arm. Several dimensions are indicated with lines and text, such as "120° ±0.05°", "120° ±0.05°", and "120°". There are also labels like "R3" and "R2" on the right side of the drawing. The overall style is that of a precision engineering blueprint.

SoftWheel's innovative  
in-wheel suspension technology  
can help reduce pain and  
provide a more comfortable ride



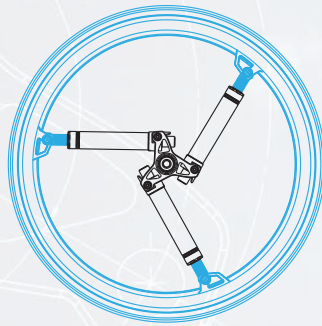
For more info visit [www.softwheel.technology](http://www.softwheel.technology)

# Patented In-Wheel Suspension System



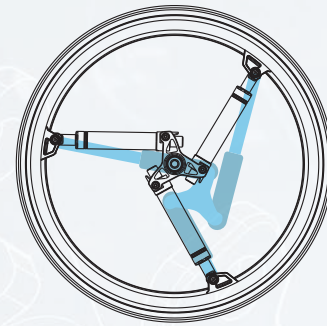
## In-Wheel Suspension

3 suspension arms are built inside the wheel and compress to absorb shocks



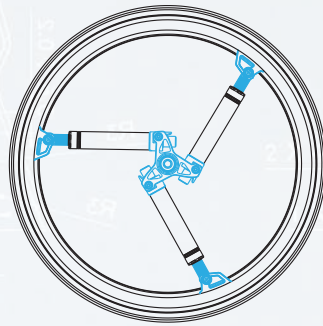
## Rigid Rim

Wheel rim is always rigid & strong, while the suspension arms & hub compress to provide shock absorption



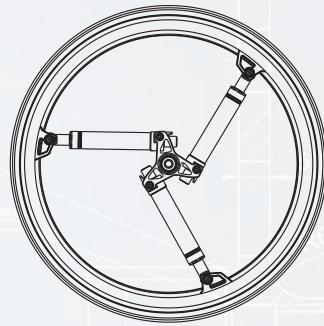
## Automatic Actuation

Suspension arms automatically compress when encountering an obstacle or rough terrain, and remain rigid & strong over flat surfaces



### 360° Suspension

Arms are set equidistant around a central hub to provide shock absorption - no matter the angle of impact



### Rapid Shock Reset

Suspension arms immediately reset and return the wheelchair – and rider, to a level ride

# SoftWheel Features



**SOFTWHEEL**

R1 All around  
Both sides

+0.1  
54 0

### #01

Dual system  
suspension with high  
& low frequencies

### #02

Silent  
mechanism

### #03

Quick axle  
release

### #04

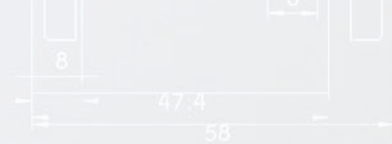
IP55: protected from  
dust & water

### #05

Slim rim with  
lighter design

### #07

Anodized aerospace  
aluminum

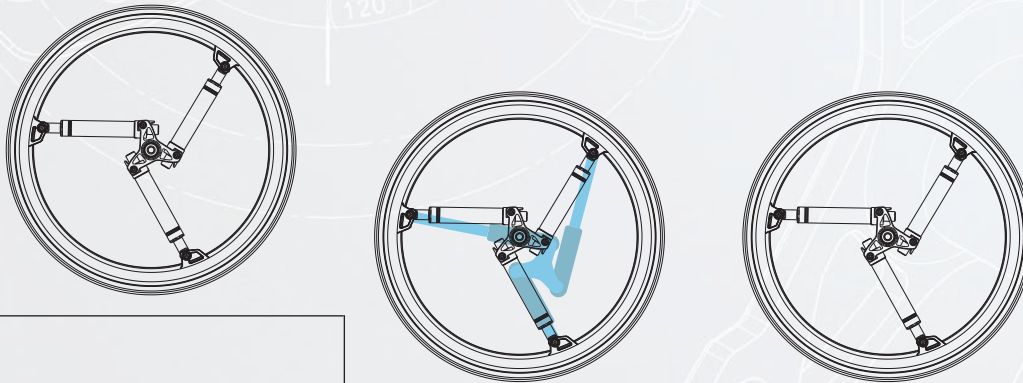


For more info visit [www.softwheel.technology](http://www.softwheel.technology)

## Shock Absorption That Actuates Only When You Need It

The wheel rim always remains rigid, while the suspension arms & hub shift to provide shock absorption only when needed – when encountering an obstacle or rough terrain.

**This leads to a smoother, more efficient ride over all types of terrain.**



**SOFTWHEEL**







SOFTWHEEL

R1 All ground  
Both sides

+0.010  
54

Sides

5 Both Sides

$\pm 0.010$   
 $\pm 0.28$  -0.021  
DIMENSION AFTER COATING  
SEE NOTE 3.5

$\phi 0.05$  A

9.6

1.7 X 30°

R0.5 (X2)

47.4

58

For more info visit [www.softwheel.technology](http://www.softwheel.technology)

A technical drawing of a wheelchair frame, showing various components and dimensions. The drawing is rendered in white lines on a light gray background. Key dimensions include two angles of  $120^\circ \pm 0.05^\circ$  and a distance of  $500 \text{ mm} \pm 0.2$ . The drawing shows the front and side views of the frame, including the front fork, rear axle, and seat area.

Whole body vibrations  
are a health concern  
for wheelchair riders

# 01

Long-term exposure to vibrations has been demonstrated to have a negative impact on people's **health & comfort**

# 02

Clinical studies have shown that wheelchair riders are **exposed to vibrations that exceed the recommended exposure limits**

# 03

Health risks associated with vibrations for wheelchair riders include **lower back pain**, effects on the **spine**, and muscle **fatigue**

## References:

"Health risks of vibration exposure to wheelchair users in the community," Garcia-Mendez Y, Pearlman J, Boninger ML, Cooper RA; *The Journal of Spinal Cord Medicine* 2013 Jul; 36(4):365-375

"Analysis of vibrations induced during wheelchair propulsion," VanSickle DP, Cooper RA, Boninger ML, DiGiovine CP; *Journal of Rehabilitation Research and Development* 2001 Jul-Aug; 38 (4):409-421



120° ±0.05°  
500.076  
120° ±0.05°

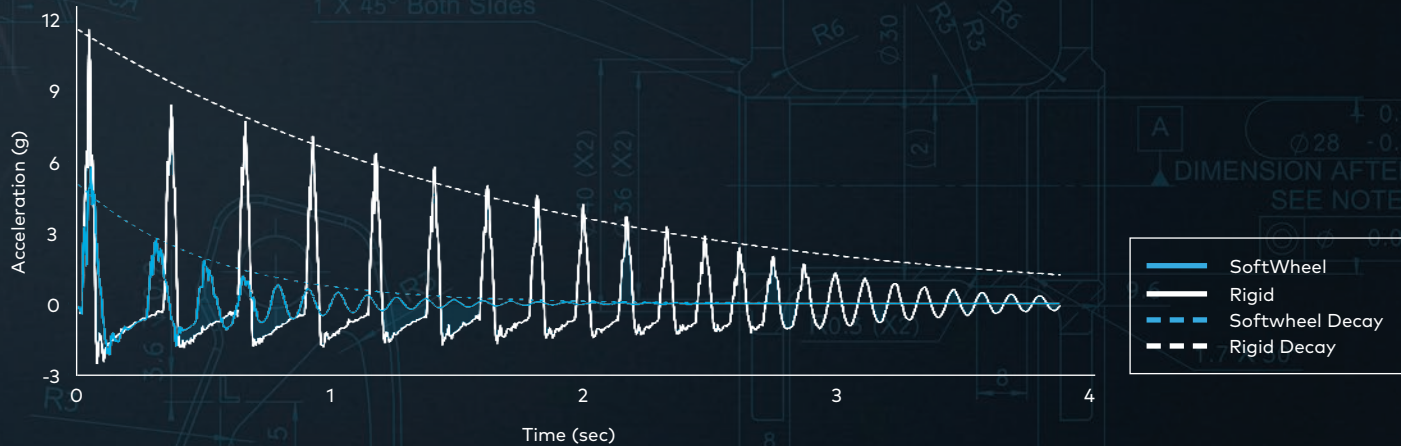
# SoftWheel Reduces Vibrations

**SOFTWHEEL**

The innovative suspension & damping technology disperses the impact energy, thereby shortening the **impact duration** and **shock magnitude** transferred to the rider

**Fewer vibrations** are therefore transmitted to the rider, leading to a smoother, more comfortable ride

SoftWheels are more **energy efficient**, helping to maintain forward momentum, which can reduce fatigue



Drop Test from 15 cm (standard curb height)  
SoftWheel vs. Standard Rigid Wheel: Acceleration Over Time

For more info visit [www.softwheel.technology](http://www.softwheel.technology)

A woman with blonde hair, wearing a black t-shirt and shorts, is seated in a black wheelchair in a grocery store aisle. She is holding a small basket of produce. The aisle is filled with shelves of various goods, including fresh produce on the left and packaged goods on the right. Overlaid on the image are faint, light-colored technical diagrams of a wheelchair, showing angles such as 120° and 10.05°. The text "Why do wheelchair riders need suspension?" is centered over the image in a white, sans-serif font.

Why do wheelchair riders need suspension?

## HEALTH



Can help reduce **back & neck pain**, and decrease **fatigue** at the end of the day

## SAFETY



Keeps the rider **steady** while going over bumps and remains **stable & rigid** over flat terrain

## COMFORT



**Absorbs shock & vibrations** on all types of terrain, providing **maximum cushioning**

A group of four people, two men and two women, are sitting on a wooden deck. They are all using wheelchairs. A large, fluffy dog is lying on the deck in front of them. The background shows a building with a door and windows. The scene is outdoors and appears to be a social gathering.

SoftWheel meets the daily needs of wheelchair riders

 **SOFTWHEEL**



Can provide riders with:

#01

Less Pain

#03

Increased Independence

#02

Greater Comfort

#04

Better Outdoor Mobility



Clinical research shows  
SoftWheel helps improve  
**health, safety, and comfort**

**SOFTWHEEL**

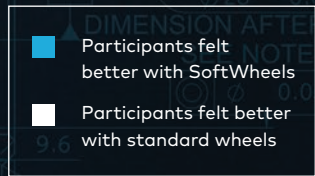
"In general, I hardly felt vibrations while riding"



"I feel very secure while riding the wheelchair"



"I feel it was easy & comfortable to propel on uneven terrain"



Source: Clinical Trial 2017, Emek Medical Center



120° ±0.05°  
120° ±0.05°  
50.0F ±0.01

120°

R3  
R3

Softwheel makes a real  
difference in people's lives

**SOFTWHEEL**

R1 All around  
Both sides



"I had **immediate relief** from **lower back pain** after switching to SoftWheels"

**Kimberly**



"For me, **SoftWheels** are **freedom**"

**David**



"Since I've started using SoftWheels, I **don't feel any pain**"

**Nataly**

For more info visit [www.softwheel.technology](http://www.softwheel.technology)

Review my  
Wheelchair

9.5

AMAZING

## "A Significant Ride Improvement"

"Soft-riding is a breeze, moving over rougher ground without any significant sudden jolts..."

It reduces the impact transferred from frame to spine...

SoftWheels offer a working professional a significant ride improvement."

Review My Wheelchair  
April 2018

**SOFTWHEEL**





## "A Softer Ride"

"A pretty impressive feat of engineering...

the ride did become noticeably softer. All the bumps, cracks and drops on my daily pushing routes were noticeable smoothed...

By switching wheels, my chair felt like it had built-in suspension."

New Mobility  
November 2018



For more info visit [www.softwheel.technology](http://www.softwheel.technology)

# Certifications



The information you provided has been recorded against the reference number shown at the top of this letter, which we ask you to quote in all future correspondence and communications.

**Please inform us of any changes to:**

- the company information
- additional generic groups of devices (add individual products within an existing generic group)
- discontinuation of a generic group of devices.

Please use FD2, the Registration form, to tell us about any of these changes.

Thank you for registering the following generic groups of devices:

**Class / Devices:**  
Wheelchairs (Non-Powered) And Accessories

**Custom Made Devices:**  
None

**Products Covered By Article 12:**  
None

**Confidentiality**

Please note that in accordance with Directive 2007/47/EC as of 21st March 2010 information on the registration of persons responsible for placing devices on the market will no longer be treated as confidential and the Competent Authority will provide third parties with information on the name and address of manufacturers and authorised representatives and their devices that have been registered. However the names of individuals, their telephone numbers and email addresses will remain confidential unless you have chosen to trade using personal details. This change only applies to medical devices and does not affect In Vitro Diagnostic device registration, which remain confidential under Article 19 of the In Vitro Diagnostic Directive 98/79/EC.

If your company name or that of a manufacturer that you represent is based on an individual's personal name it will be published unless you inform the MHRA that you would like the company name to remain confidential.

Likewise, if your company address or that of a manufacturer that you represent is the personal home address of an individual it will be published unless you inform the MHRA that you would like the company address to remain confidential.

Should you have any queries regarding your registration, please do not hesitate to contact us.

Yours sincerely



Sean Williams  
Regulatory Affairs Officer  
Tel: 0203 880 7325  
Email: sean.williams@mhra.gov.uk

GD/Reg Vies 1 Sep 2008

CE Certificate

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Food and Drug Administration  
Center for Devices and Radiological Health  
10903 New Hampshire Ave., W066 Room 2621  
Silver Spring, Maryland 20993-0002

April 7, 2015

Dear Sir or Madam,

The U.S. Food and Drug Administration (FDA) Center for Devices and Radiological Health (CDRH) received registration and listing information identifying you as the Official Correspondent for the medical device facility listed below. Please keep this confirmation email and any attachments for your records.

**Establishment Name** SOFTWHEEL LTD.  
**Establishment Address** 24 RAOUL WALLENBERG  
TEL AVIV, TEL-AVIV 6971920  
ISRAEL

PI/PCH Details :	
PI#	50138289
PCN	15263489

If you have any questions or need assistance, please e-mail CDRH Registration and Listing at [reglist@cdRH.fda.gov](mailto:reglist@cdRH.fda.gov), or call (301) 796-7400, Monday through Friday, between 8:00 am and 5:00 pm ET.  
CDRH Registration and Listing Office

This technical report may only be quoted in full. Any use for advertising purposes must be general in selling all of a single examination of the exact condition and is not per se applicable evidence of the quality of other products in regular production.

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Time: 10:55:44

File: 0110100001  
No. for: 0100000  
Page(s): 1

Page: 1 of 1

Printed on: 2015/04/07  
Time: 10:55:44

FDA – Class 1



**Technical Report No. 713105340**  
Revision: 0  
dated 2017-08-18

**Client:** SoftWheel Ltd.  
Rau Wallenberg Str. 24  
IL-0971920-Tel Aviv

**Manufacturing plant:** SoftWheel Ltd.  
Rau Wallenberg Str. 24  
IL-0971920-Tel Aviv

**Test object:** Drive wheel with hand rim for manual wheelchairs  
Type: Accuball A  
max. load: 143 kg (wheelchair with patient)

**Test specification:** EN 12183:2014, section 7.2  
- ISO 7176-8:1995, section 6.4, 10.4 and 10.5

**Procedure of measurement:** Testing according to the test specifications.

**Test result:** The test results show that the presented product is in compliance with the specified requirements.

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TÜV SÜD






For more info visit [www.softwheel.technology](http://www.softwheel.technology)

For maximum performance,  
SoftWheel is available in 4 stages,  
customized to a rider's weight

Stage	Weight (kg)	Weight (lbs.)
A	up to 50 kg	up to 110 lbs.
B	50 - 70 kg	110 - 155 lbs.
C	70 - 90 kg	155 - 200 lbs.
D	90 - 136 kg	200 - 300 lbs.



**Size:** 24" & 25"

**Hub:** AL 6061 T6; high precision CNC

**Rim:** AL 6061 T6

**Bearing diameter:** U.S. or  
European standard

**Load limit:** 136 kg (300 lbs.)

**Wheel weight:** 1.8 kg (4 lbs.)

**Drum Brake:** Optional

For more info visit [www.softwheel.technology](http://www.softwheel.technology)

100.0.0.11

$120^\circ \pm 0.05^\circ$

$120^\circ \pm 0.05^\circ$

$120^\circ$

**SOFTWHEEL**

Wheel Reinvented

[www.softwheel.technology](http://www.softwheel.technology)

You can find us on:

