THRYV

...inspiring abilities

An IIT Madras incubated startup

"So many of our dreams at first seem impossible, then they seem improbable, and then, when we summon the will, they soon become inevitable." – ***Christopher Reeve, the first Superman and survivor of a spinal cord injury that left him paralyzed neck down for the rest of his life***

About Us

Vision
Inspire ability in the community through technology and create a flatter world where no one is left behind

Mission
Democratize access to assistive and rehabilitation technologies through affordable devices

Guiding Principles
User-centric | Meaningful | Affordable | Aesthetic

9+
Member strong, diverse and inclusive team. Expanding!

30+
Years of lived experience with disability

₹ 1.2cr*
secured and growing

75+
Years of research and engineering experience

5+
Value chain partners secured and multiple others under discussion

100+
Years of corporate experience

4+
Products in pipeline. 2 of them scheduled to launch by end of 2024

50+
Years of experience understanding assistive devices

*Does not include R2D2 support for product development

Real World Problem and Solution

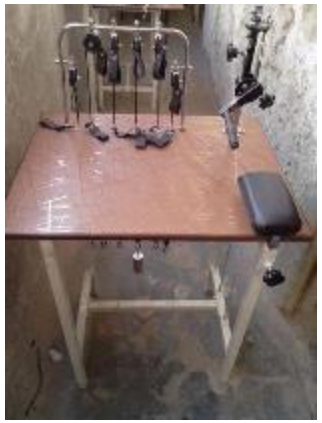
From lived experience and conversation with peers and rehab professionals

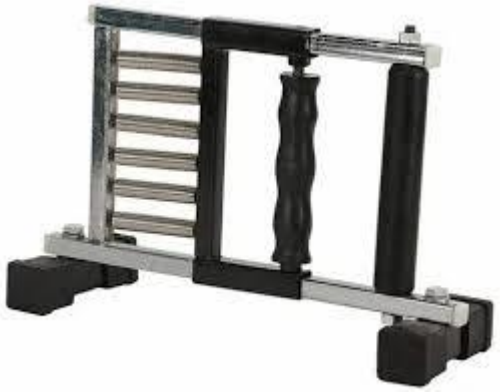
Only 1 out of every 10 get the right rehabilitation

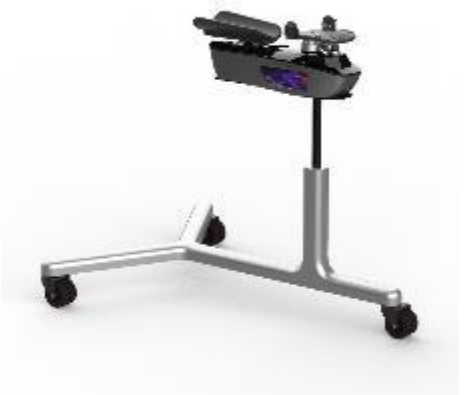
Rehab programs are not standardized; assessments are subjective and not tracking progress is difficult

High quality rehab tech is cost prohibitive and only available in select few hospitals

Existing therapy is boring and results in patient fatigue







Market Potential and Target Segment (PLUTO)

- **Strong Growth Prospects**: The global hand rehabilitation market is projected to grow at a CAGR of 9%, doubling its value from USD 400 million in 2022 to over USD 800 million by 2030.

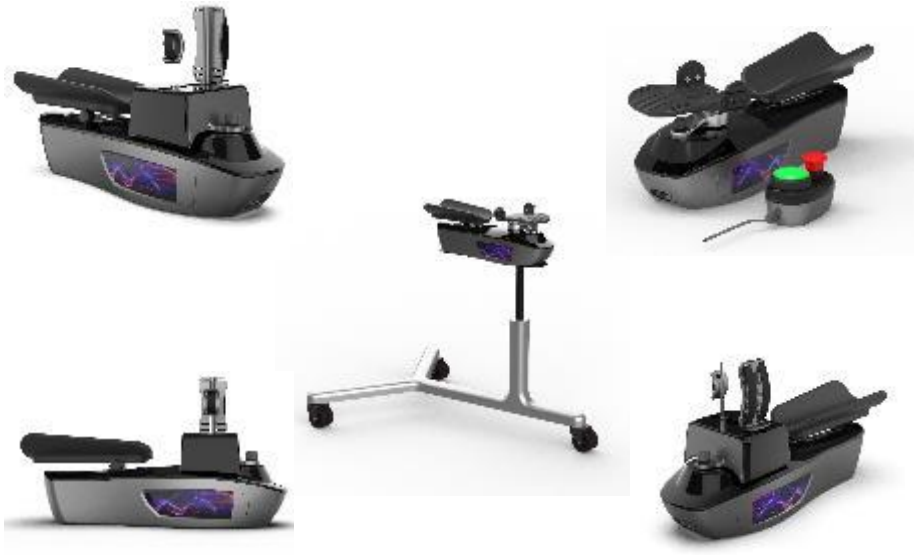
- **Technological Advancements**: Robotic-assisted devices and virtual reality-based rehabilitation systems are transforming treatment outcomes, driving demand

- **Expanding Home-Based Care**: Portable and user-friendly rehabilitation devices for home use are a key growth driver, catering to an aging population and rising chronic conditions

Technology and Innovation and roadmap

Device 1: Hand Neurorehabilitation Robot (PLUTO)

A gamified portable rehabilitation robot that provides assistance and resistance to train fine motor skills for persons with stroke, tetraplegia (**TRL: 8, approvals**)



Device 2: Arm Neurorehabilitation Robot (AREBO)

A portable rehabilitation robot to train arm movement with both assistance and resistance (**TRL: 5, functional prototype**)

Jointly developed with IIT Madras and Christian Medical College, Vellore. Background IP with IITM and CMC, exclusive license to Thryv

Competitors

Key Competitors	Overview
Tyromotion	• Established in 2007 • 90+ employees • 55 distributors across 65 countries • 5000 plus devices sold
Rymo	• Established in 2020 • 5 employees • Focus exclusively on therapeutic equipment
Biometrics	• Established in 1993 • Leader in sensors, instruments and software • Used by thousands of hospitals,

PLUTO Advantages

- Portability
- Quality
- No need for dedicated real estate
- High quality rehab to the doorstep

Introductions

Prof. Sujatha Srinivasan
Leadership & Mentoring
IIT Madras | R2D2
Forte: Research, mechanism design, movement biomechanics
Experience: 30 years in mechanical engineering, prosthetics, leading AT lab

Justin Jesudas
Leadership, Strategy & Execution
R2D2 | ex UBS | ex Cognizant
Forte: Team building, product innovation
Experience: 20 years in research & analytics, market & business strategy

Sashank Allu
Product and Strategy
Purdue University | IIM Calcutta
Forte: Control systems, assistive technology
Experience: Mechanical engineering, robotic controls

Prof. Sivakumar Balasubramanian
Research and Development
CMC Vellore
Forte: Neurorehabilitation technologies, FES, sensorimotor assessment
Experience: 20 years in rehab technology

Rejin John Varghese PhD
Product Development
Imperial College London | Ex-Schlumberger | IIT Bombay
Forte: Research, Soft & Wearable Robotics
Experience: Mechanical Engineering, Assistive & Rehabilitation Robotics

Senthil Kumar
Finance & Risk Management
Chartered Accountant | ex E&Y | ex Infosys
Forte: Corporate finance, accounting
Experience: CFO, building startups, investment management

Manish Anand PhD
Research and Development
IIT Madras | Ex Purdue University
Forte: Mechatronics, machine design
Experience: Developing technology for rehabilitation

Ann David PhD
Research and Development
CMC Vellore
Forte: Neurorehabilitation
Experience: Behavioural modelling, Medical devices and technology

Sathish Balaraman
Product Development
R2D2 IIT Madras | CMC Vellore
Forte: Integrated product development, clinical trials
Experience: Bioengineering, specializing in rehabilitation devices

Currently onboarding an IIM B 2010 graduate in the capacity of co-founder for strategy and operations

Board of Advisors

Mr. S Ramadorai CBE*
Chairman of Tata Technologies and Tata Institute of Social Sciences
Former advisor to the PM of India | Ex CEO of Tata Consultancy Services

Rear Admiral Deepak Bansal
Ex Indian Navy
Strategy & Partnerships

Prof. Rishikesha Krishna
Director, IIM Bangalore
Business & Market Strategy

Prof. Catherine Holloway
Academic Director, Global Disability Innovation Hub | University College London

Ramesh Mangaleswaran*
Ex Senior Partner, McKinsey
Manufacturing Strategy | Growth

Dr. Henry Prakash
Christian Medical College, Vellore
Dept. of Physical Medicine and Rehabilitation

Dr. Sarah Hillyer PhD
University of Tennessee
Clinical Associate Professor | Director, Center for Sport, Peace, and Society

Prof. Etienne Burdet
Imperial College of London
Human Robotics | Dept. of Bioengineering

Prof. Dario Farina
Imperial College of London
Neurorehabilitation Tech | Dept. of Bioengineering

*Are also strategic investors in Thryv

Partner: R2D2 @ IIT Madras

Thryv's Product Development is supported by the TTK Center for Rehabilitation Research and Device Development (R2D2)

Sujatha Srinivasan, PhD
Professor
Department of
Mechanical Engineering
IIT Madras

Commercialized Products

Arise Standing Wheelchair

Kadam – Polycentric Knee

NeoBolt + NeoFly

Facilities

- Gait & Motion Analysis Lab
- VO2 Analyzer
- UTM
- Double Drum Test
- Drop Test
- VMC

31	19	13	09
research publications	conference publications	patents granted	patents pending