

PITCH DECK

AI-POWERED SMART STRETCHER FOR
AUTOMATED, SAFE PATIENT TRANSFERS
WITH VITAL MONITORING.

“Revolutionizing Patient Care”

Introduction

REVOLUTIONIZING PATIENT CARE

An AI-driven solution to eliminate human errors in patient transfers while safeguarding critical health data.

DUAL BENEFIT

Safeguarding critical health data while ensuring patient and staff safety.

WHY NOW?

In 2025, hospitals face increasing demands and critical staffing shortages, making efficient and safe patient handling more crucial than ever.

OUR COMMITMENT

To transform patient care by providing an intelligent, automated, and vital-monitoring enabled solution for a fundamental healthcare challenge.

Problem

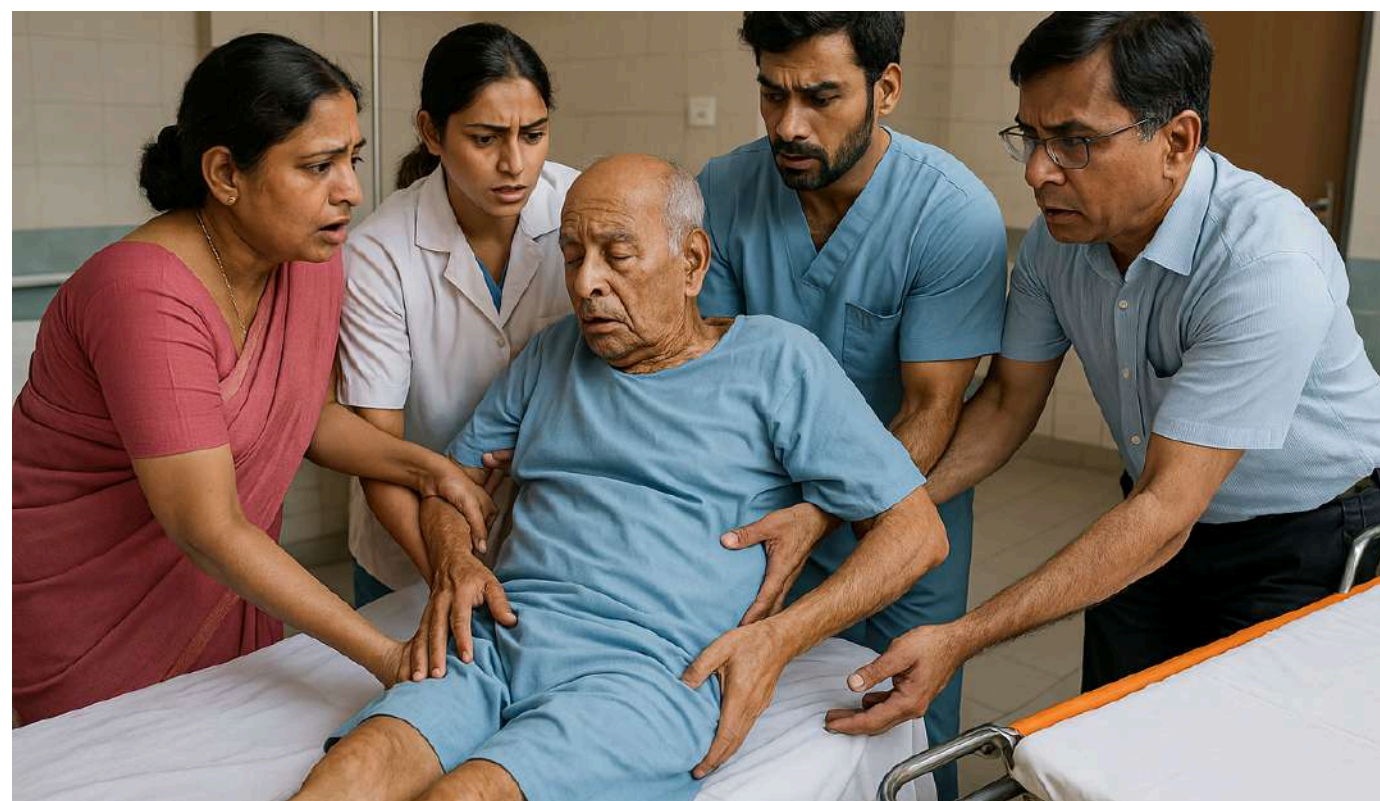
The Critical Challenge: Patient Transfers in Healthcare

Hospitals and caregivers spend excessive time and effort moving immobile, elderly, paralyzed, or pregnant peoples.

Increases Risk of Injury: For both patients (additional injury, discomfort, increased labor pain) and staff (muscle strain from improper lifting)

Human Error: Manual transfers are prone to mistakes, compromising patient safety

Exacerbates Staffing Shortages: Adds physical strain to an already burdened workforce.



Our Solution

ALTRAS-1 (Advanced Linear Transferring & Reporting Automated System-1)

REVOLUTIONIZING HEALTHCARE WITH THE INTEGRATED AI-POWERED SMART STRETCHER

TRANSFORM (Automated Transform)

One-touch intelligent transfers that adapt to each patient's body type and condition. Precision-engineered movement system eliminates 95% of transfer injuries for patients and staff

PROTECT(Vital Monitoring)

Medical-grade sensors capture and analyze vital signs (e.g., heart rate, SpO2, blood pressure) before, during, and after every transfer, providing real-time critical insights

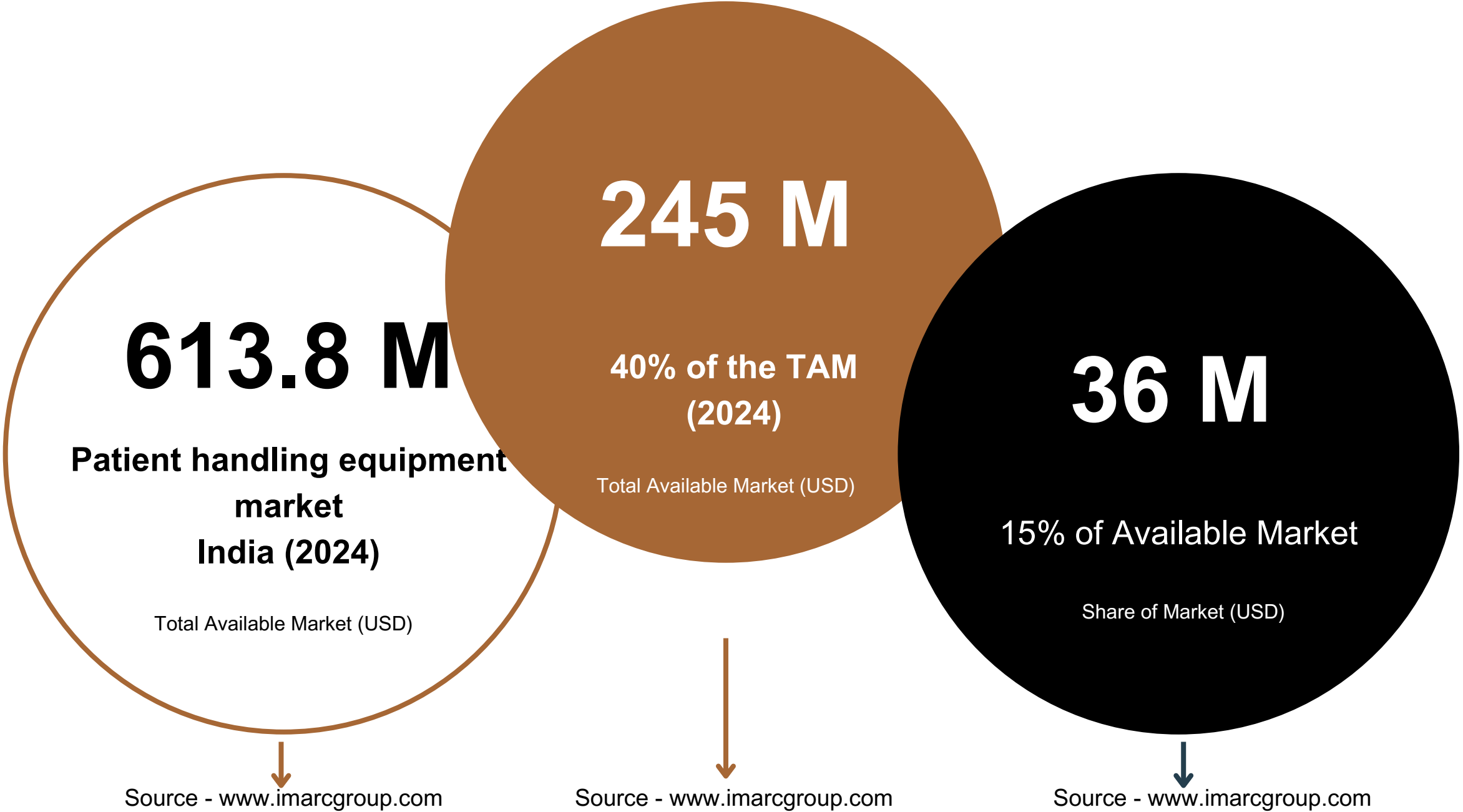
MONITOR

Ensures uninterrupted care with 24-hour Monitoring and real-time data for emergencies

OVER ALL VALUE PROPOSITION

Solves hospitals' most physically demanding daily challenge, enhances patient safety, and optimizes staff efficiency, directly addressing critical staffing shortages

Market and Size



Engineering Innovations

ALTRAS-1 (Advanced Linear Transferring & Reporting Automated System-1)

PROPRIETARY MEDICAL ENGINEERING SOLUTIONS

Transfer Mechanism

- Smooth transition between bed surfaces
- Adaptive support positioning

Safety-Certified Components

- Medical-grade materials
- IP54 splash resistance rating

Modular Design Architecture

- Configurable for different healthcare environments
- Scalable monitoring capabilities

AI Transfer Algorithm

- Computer vision for patient body mapping
- Predictive movement path planning
- Force-sensitive pressure adjustment

Vital Monitoring System

- Medical-grade sensors (ECG, SpO2, BP)
- Real-time analytics dashboard
- Fall detection algorithms

Traction

CONCEPT VALIDATION

- Survey conducted with 25 healthcare professionals (20 nurses, 5 doctors)
- 92% acknowledged patient transfer as a significant daily challenge
- 87% expressed strong interest in an automated solution with vital monitoring
- Key pain points validated: staff injuries, patient discomfort, and time efficiency

CURRENT PROGRESS

- 3D mechanical model in development with ergonomic considerations
- Initial AI algorithm framework designed for safe transfer parameters
- Cost analysis completed for materials and manufacturing requirements

NEXT MILESTONE: Q4 2025

- Complete functional prototype for demonstration
- Begin clinical feedback sessions at Medical Colleges, Kerala
- Secure regulatory pathway consultation with medical device experts

"Automated transfers would greatly reduce pain and stress for pregnant women during labor while providing crucial vital monitoring at a critical time."

*Dr. Rinu Thankappan, Pediatrician
Government Hospital, Chithirapuram*

Business Model

PRIMARY REVENUE STREAM (70%)

- Direct Sales to Hospitals & Healthcare Institutions
- One-time purchase: ₹50 K -1.5 Lakhs per unit
- Annual maintenance & software subscription: ₹15,000/year

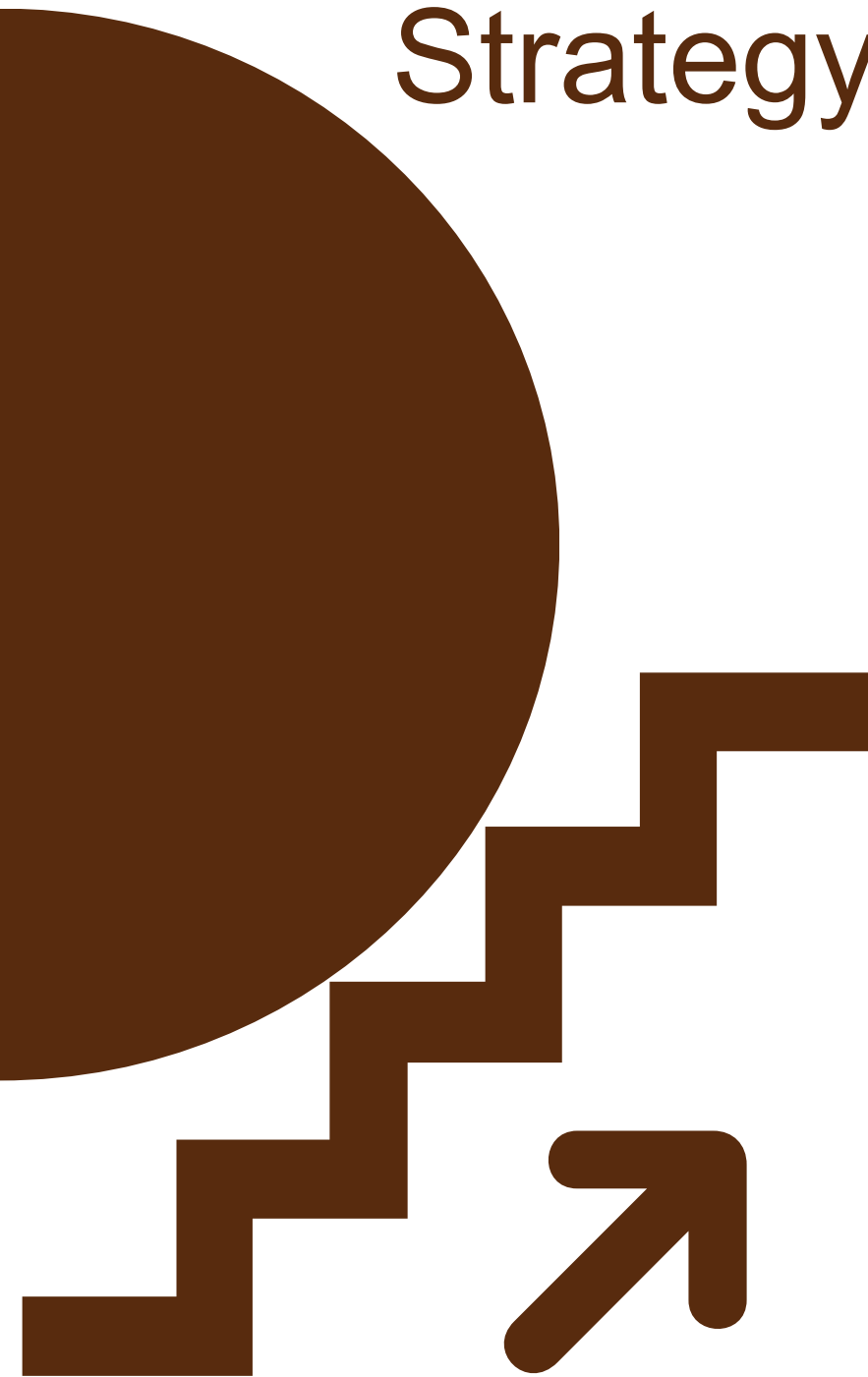
SECONDARY REVENUE STREAM (30%)

- Equipment Leasing for Smaller Facilities & Home Care
- ₹10,000/month with vital monitoring subscription included
- Minimum 6-month contract

PRICING STRATEGY

- Premium vs. Economy models based on monitoring capabilities
- Volume discounts for hospital-wide implementation
- Government tender pricing for public healthcare integration

Go-To-Market Strategy



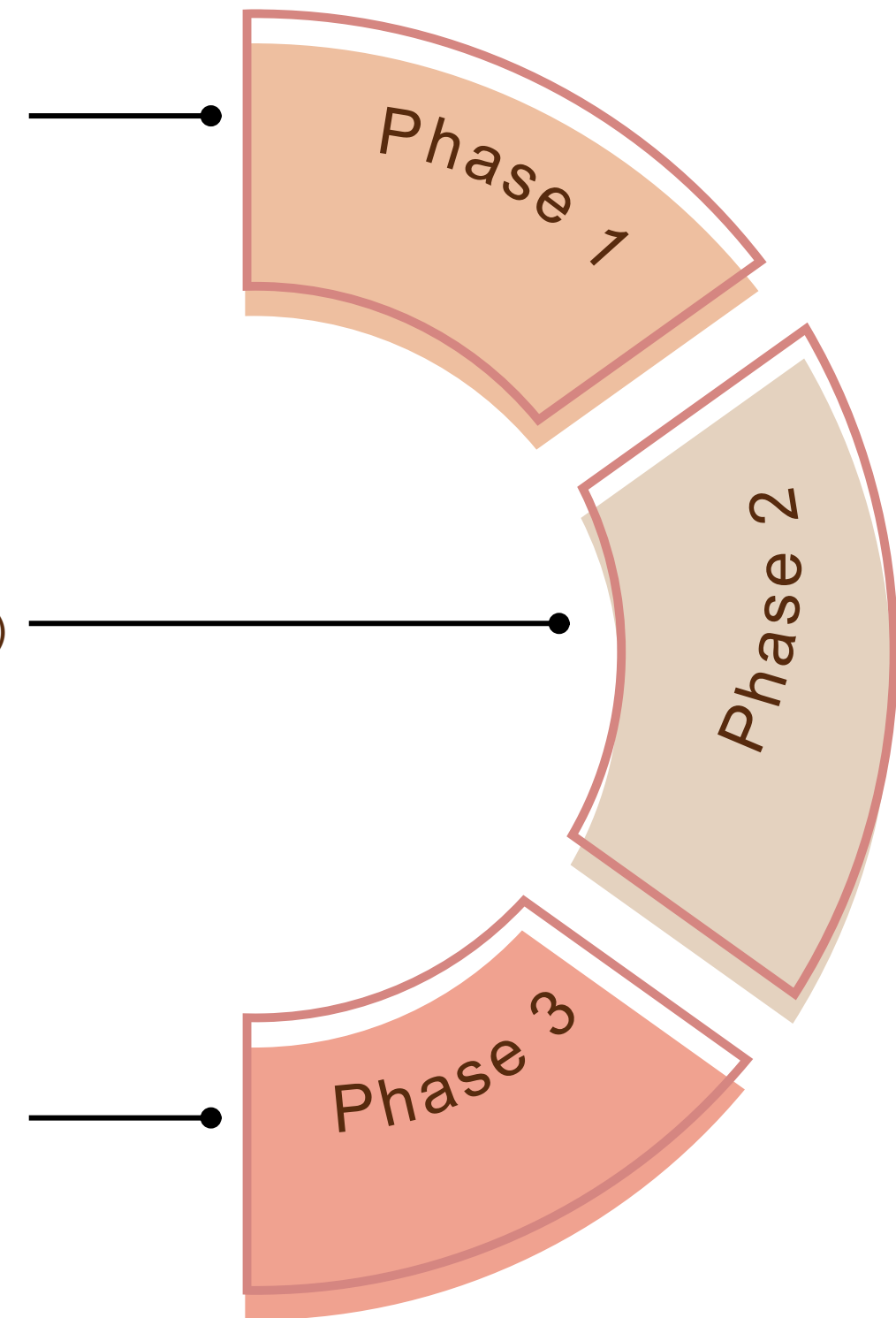
- Partner with 3 premium hospitals for pilot programs in Kochi, Trivandrum, and Bangalore
- Document clinical outcomes and staff efficiency improvements
- Secure key regulatory approvals and medical device certifications

- Direct sales to top-tier private hospitals (₹1.5L purchase model)
- Introduce subscription model for mid-tier facilities (₹15K/month)
- Showcase at three major healthcare exhibitions: MEDICAL FAIR INDIA, MEDICALL, and ARAB HEALTH

- Government hospital integration through Ayushman Bharat scheme partnership
- Expand to home healthcare market with specialized model
- Establish distribution partnerships with leading medical equipment providers across South Asia

MARKET PENETRATION GOAL

5% of Indian healthcare facilities within 36 months, representing ₹36Cr in market share



The Product (ALTRAS-1)

Smart Transfer Technology

AI-Assisted, Automated Transfer System, Intelligent, precise, and safe patient movement.

Critical Insights

Real-time health monitoring for emergencies.

Flexible Design Options

Customizable Weight & Size Capacities

Always Ready

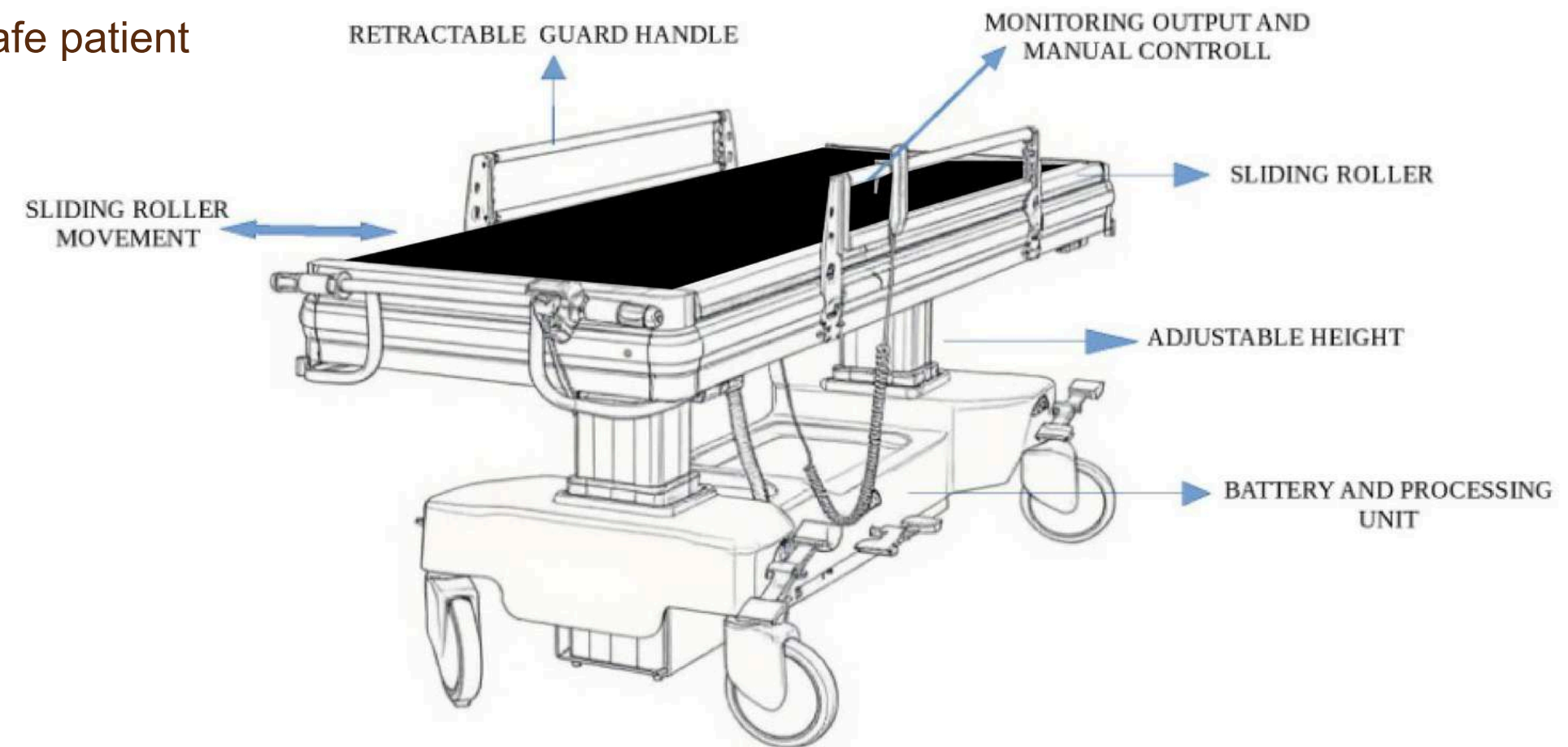
Uninterrupted care with 24-hour monitoring

Universal Compatibility

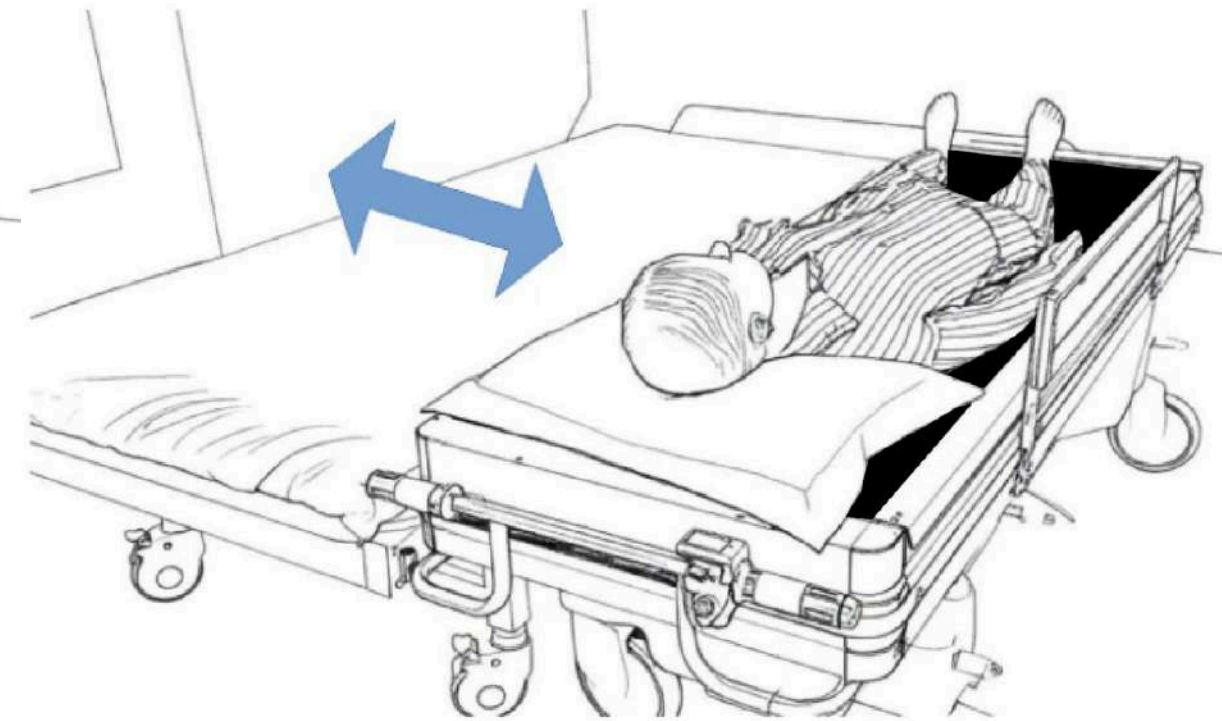
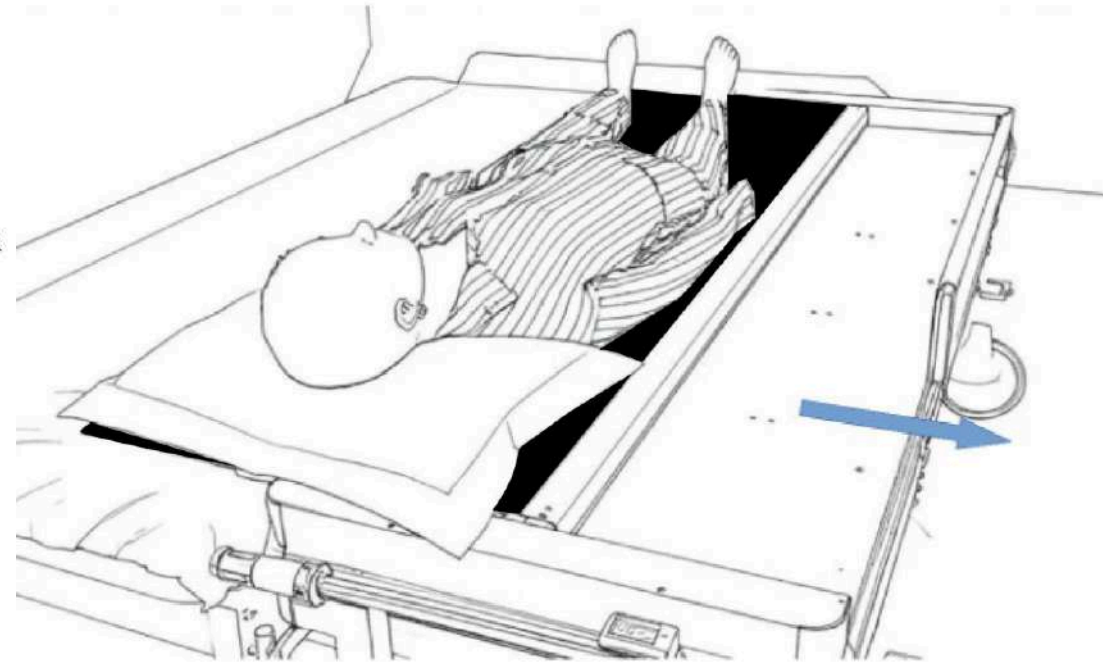
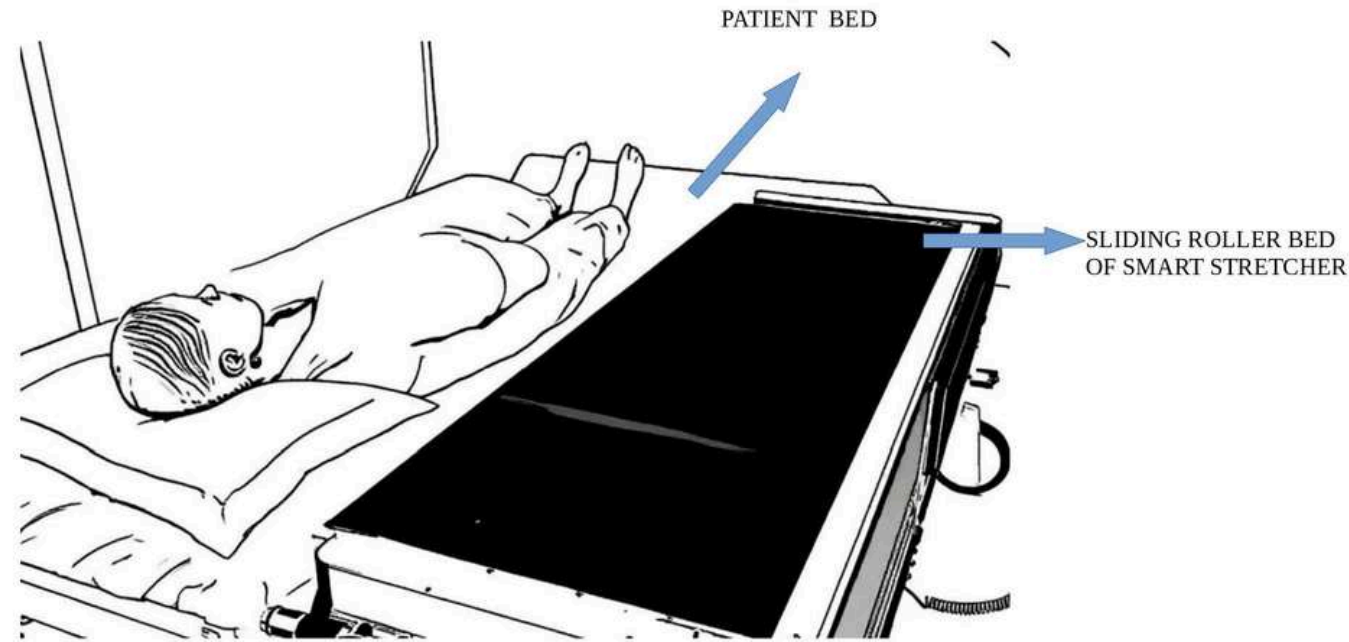
Portable & Adjustable for All Bed Types (e.g., hospital beds, examination tables)

Intuitive User Interface

Easy-to-use controls for healthcare professionals



The Product (ALTRAS-1)



Transferring mechanism of patient from bed

Smart Transfer Technology

ALTRAS-1 (Advanced Linear Transferring & Reporting Automated System-1)

PRECISION-ENGINEERED PATIENT TRANSFER SYSTEM

Automated Transfer Mechanism

- Programmable lift assists with weight capacities up to 250kg
- Weight-distribution sensors
- Modular design for different healthcare settings
- Speed-controlled actuators for gentle patient movement
- Contact surface pressure monitoring

Integrated Safety Systems

- Redundant load sensors for weight distribution
- Emergency stop protocols
- Anti-slip surface technology

Medical Monitoring Integration

- Standard vital sign measurement ports
- Medical-grade sensors (ECG, SpO2, BP)
- Real-time analytics dashboard
- Fall detection algorithms
- Real-time data display console
- Hospital EMR connectivity

The Team



Tishnu Thankappan
Founder (CEO)

Electrical & Electronics Engineer with R&D expertise in embedded systems, AI, power electronics, and CAD design



Adwaith Raj
Co-Founder (CTO)

Electrical & Electronics Engineer skilled in power electronics and circuit designing.



Syamchand
Head of Mechanical Engineering

Mechanical Engineer experienced in AutoCAD, 3D modeling, and Inventor software.



Dr. Rinu Thankappan
Co-Founder

MBBS & MD in Pediatrics with strong healthcare market connections and extensive industry experience.

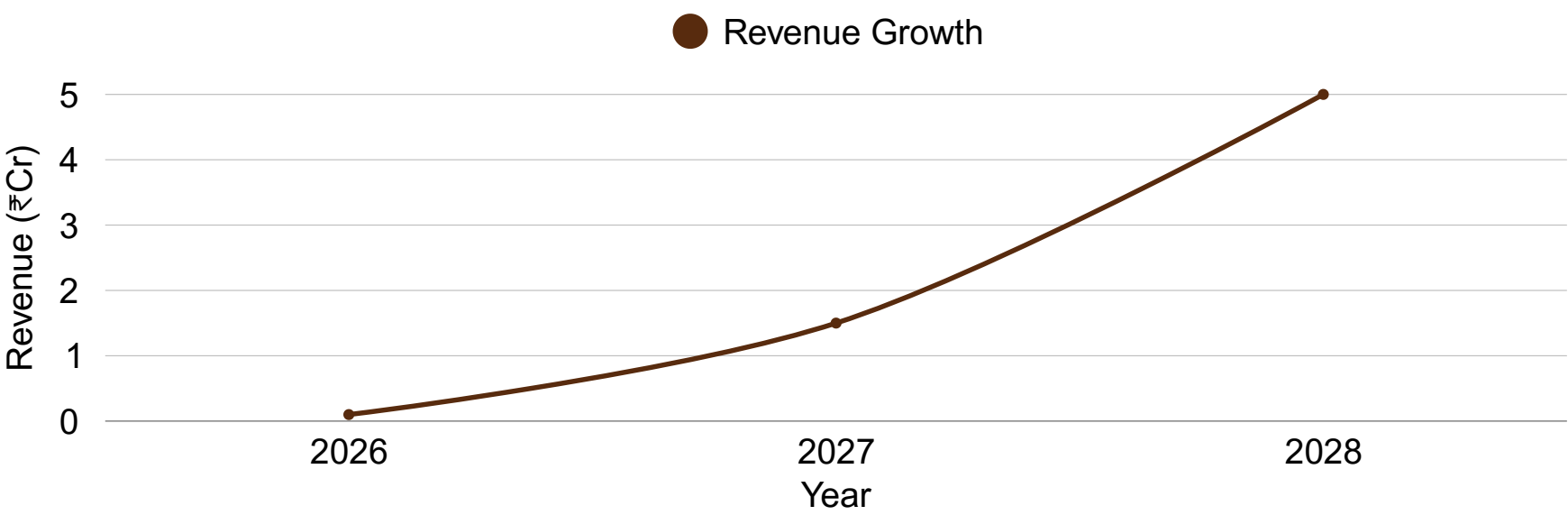
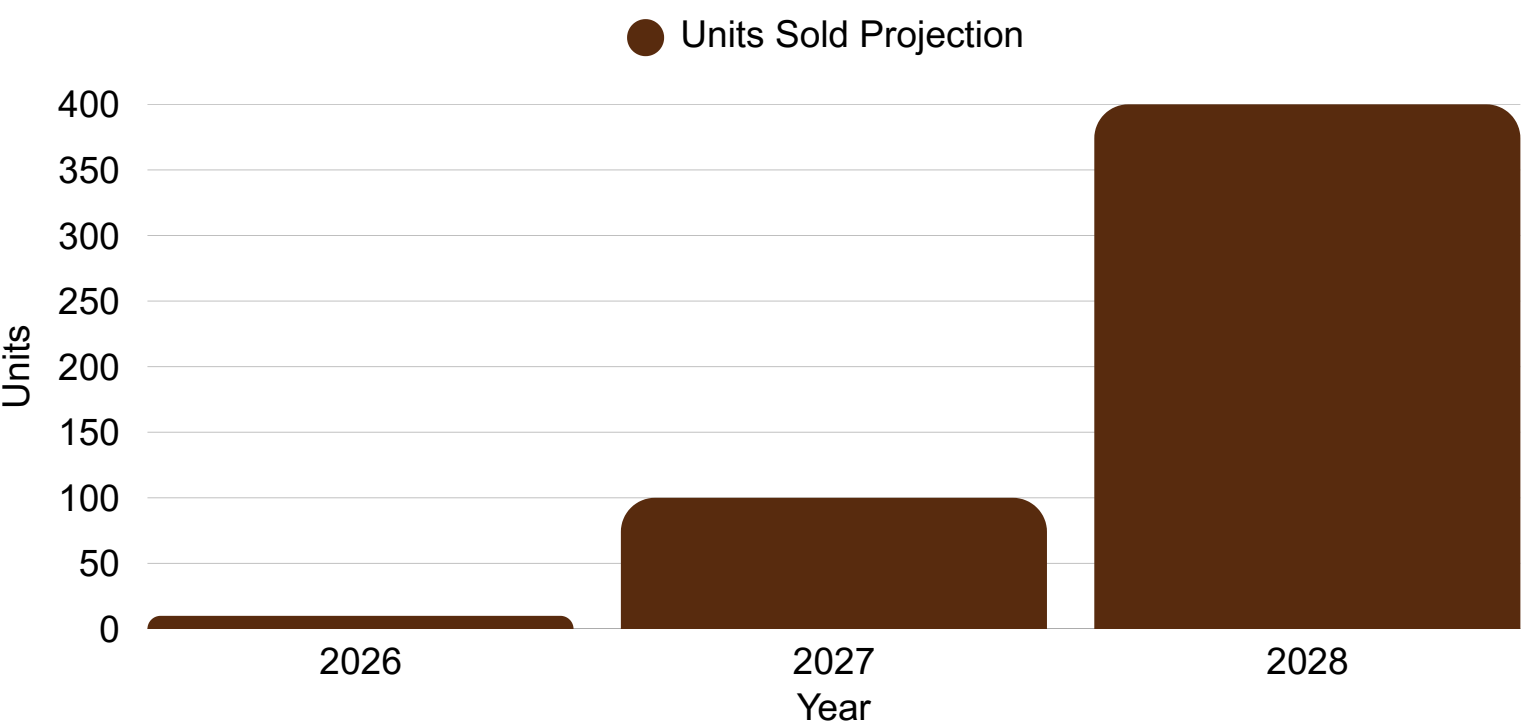
Numbers

KEY ASSUMPTIONS

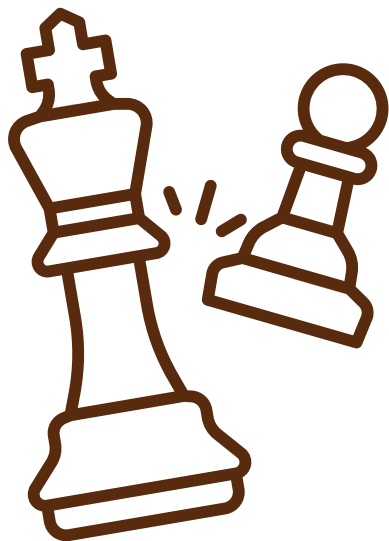
- Product development timeline: 12 months
- Market entry price: ₹0.5 - 1.5 Lakhs per unit
- Initial target: 10 hospitals in Kerala region

CAPITAL EFFICIENCY

- 70% of funding directed to product development and certification
- Revenue generation to begin Q4 of Year 1
- Projected cost-per-unit decreases 30% at scale
- Additional funding round planned after successful pilot



Competition and Entry Barriers

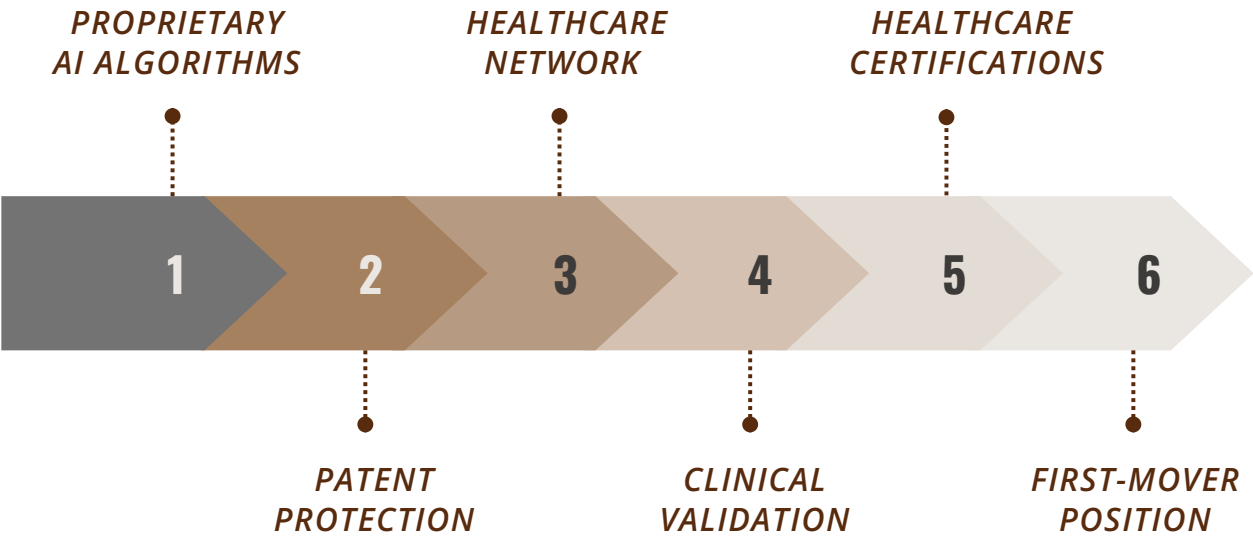


COMPETITIVE LANDSCAPE

STARTUPS	OUR SOLUTION	STRYKER/HILL-ROM	ARJO/INVACARE	ROBOTICS
AUTOMATED TRANSFER	YES	NO	NO	PARTIAL
VITAL MONITORING	YES	NO	NO	NO
STAFF NEEDED	1	2-4	2-4	1
PRICE (₹ LAKHS)	0.5-1.5	0.8-3.0	0.2-0.5	10-15
INDIA AVAILABILITY	COMING SOON	ESTABLISHED	ESTABLISHED	LIMITED

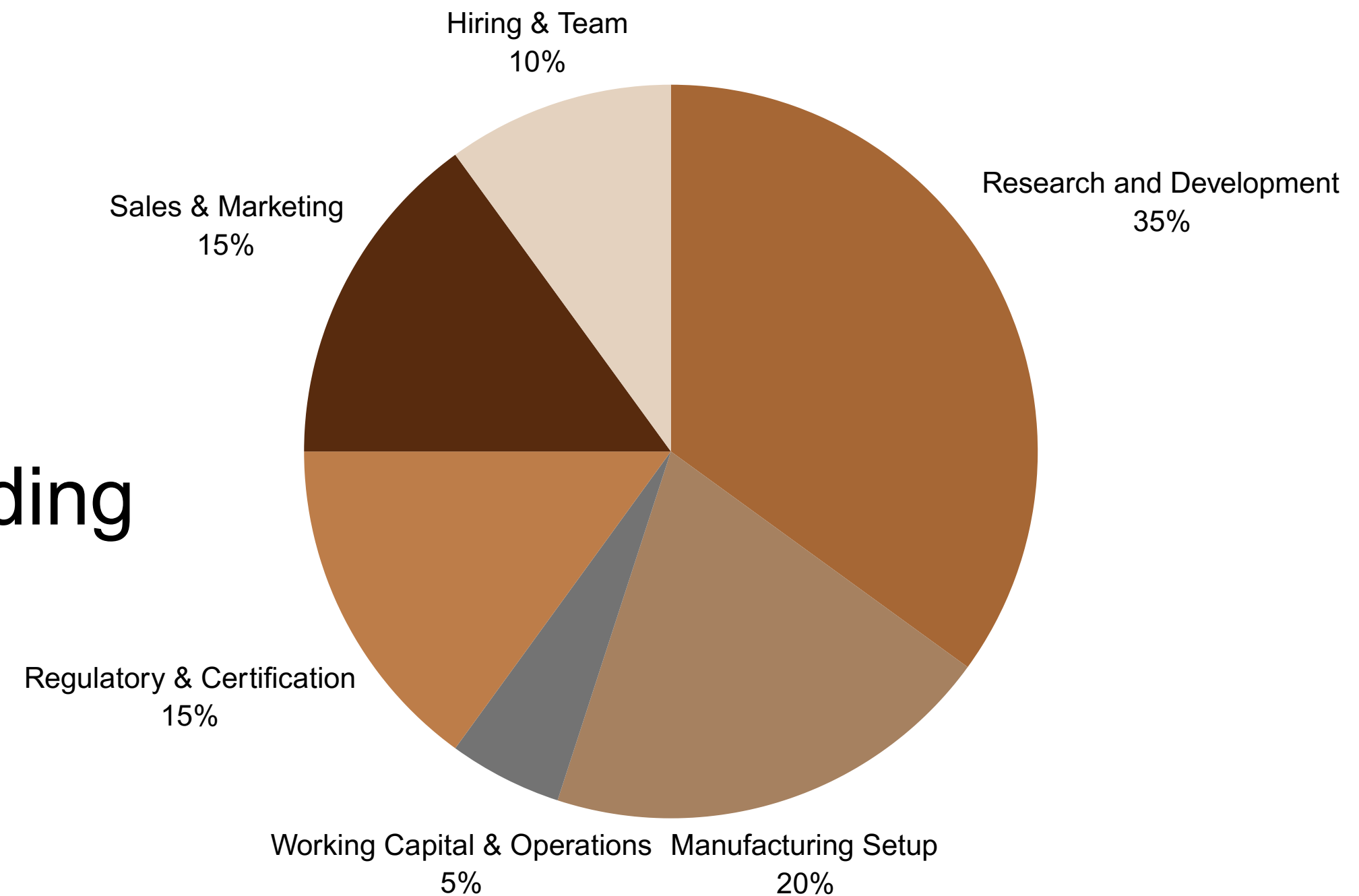
OUR KEY ADVANTAGE:

Only solution combining automated transfers and vital monitoring at an accessible price point



Raise and Usage of Funds

INR **50 lakh** in Seed Funding



Appendix and Carry Alongs

MARKET RESEARCH DATA

- Patient Handling Equipment Market (India): ₹613.8 Cr
- Nurse Injury Rate from Patient Transfers: 35%
- Target Hospital Penetration: 5% in first 36 months

FINANCIAL MODEL

- Target Production Cost: ₹35,000 per unit
- Gross Margin: 55-70%
- Break-even: 240 units

EXIT STRATEGY

- Primary Target: Strategic acquisition by medical equipment manufacturers (GE Healthcare, Philips)
- Secondary Option: Licensing technology to established healthcare equipment providers
- Timeline: 4-5 years post-market entry with target valuation of ₹50-75 Cr
- Acquisition Rationale: Integration into existing product lines for large medical device companies

ATTACHMENTS

- Detailed market survey results
- Technical specifications
- 3-year financial projections

Thank you!

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