

 **HANDY
REHAB**

 **HANDYREHAB**
Affordable robotics for rehabilitation

Technology Forum
"Support to the Elderly and
Persons with Disabilities"

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THE GLOBAL PROBLEM

- Ageing population and rising cases of stroke rendering people immobile
- Shortage of medical professionals



Stroke Mortality Rate

34.4%
(2001)



19.8%
(2015)

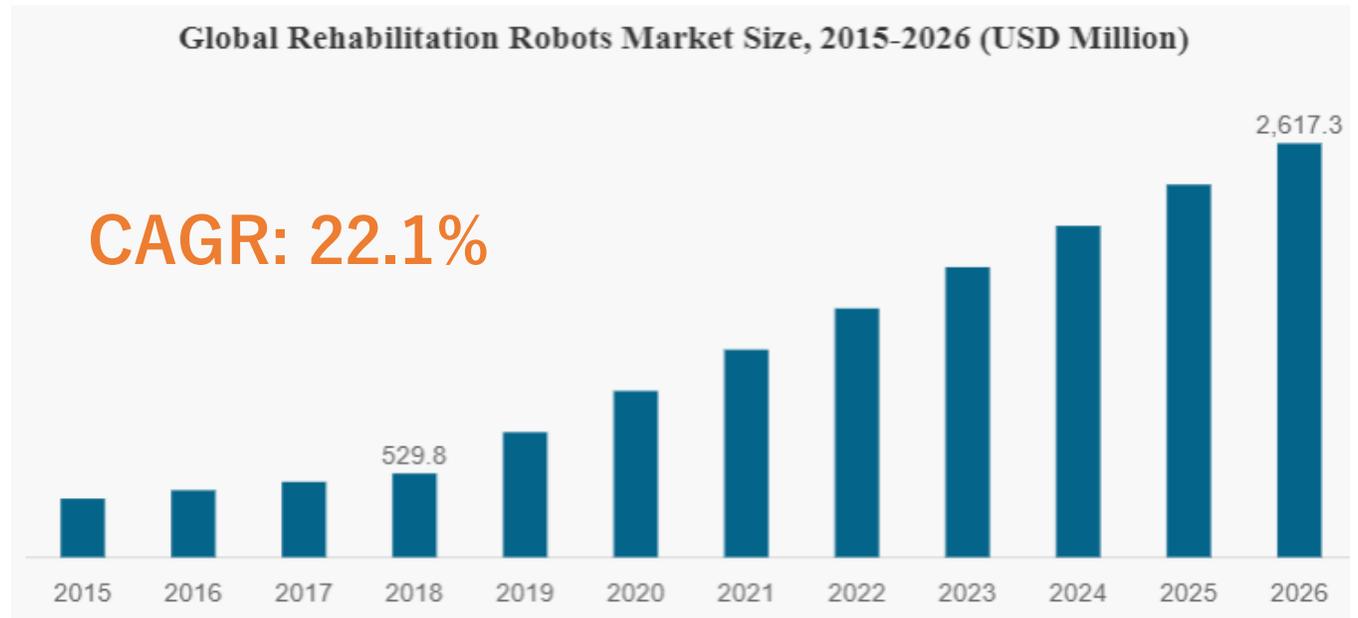
*no. of stroke cases per year remains similar in Hong Kong



Rehabilitation Demand

Almost **60%** of all strokes each year are in people **under the age of 70**

Global Rehabilitation Robots Market Size, 2015-2026 (USD Million)



CAGR: 22.1%

Global Market Size

US\$529.8M (2018)
US\$2,617.3M (2026 F)

Source: [Fortune Business Insight](#), [WSO fact sheet](#), [World Stroke Organization](#)

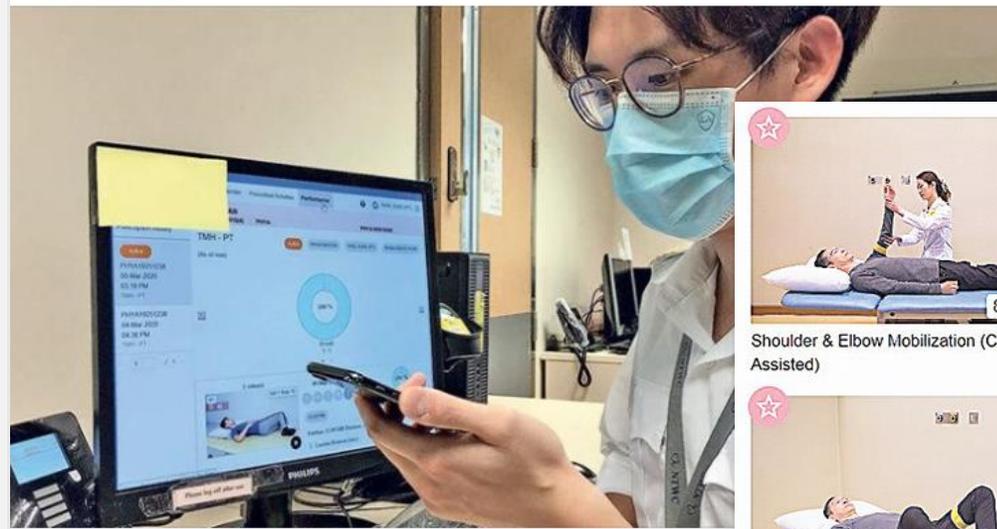
SHORT TO MID-TERM PROBLEM: COVID-19

醫院管理局 Hospital Authority 9 March · 🌐

【HA Go App播片 助遙距物理治療】

2019冠狀病毒病肆虐，大家都唔想特登去醫院覆診。有見及此，屯門醫院物理治療部就以醫管局流動應用程式「HA Go」，為病人處方復康練習短片，等佢地喺屋企繼續訓練，足不出戶亦可以得到適切治療。

#遙距物理治療
#流動應用程式
#HAGo
#足不出戶治療



NEWS.MINGPAO.COM
HA Go App播片助遙距物理治療 - 20200309 - 港聞
 【明報專訊】新型冠狀病毒肺炎疫情肆虐，非緊急病人近日或想避免到醫

 <p>8.73 MB 1:19</p> <p>Shoulder & Elbow Mobilization (Carer / Self Assisted)</p>	 <p>6.74 MB 1:07</p> <p>Hip & Knee Mobilization (Carer / Self Assisted)</p>
 <p>6.33 MB 1:02</p> <p>Hip Open & Close Exercise</p>	 <p>6.28 MB 0:58</p> <p>Gluteal Muscle Strengthening Exercise (Bridging)</p>



內科9萬多宗穩定新症最長要輪候近3年才獲跟進治療
 來源：商台新聞

精選 疫情下暫停非緊急服務 病人憂延遲治療令病情惡化

本地
 發佈時間 13.08.2020 11:45 最後更新時間 13.08.2020 11:45

- HA rehab services reduced by 70%
- Video-only tele-rehab

OUR VALUE PROPOSITION

PROBLEMS of medical devices:

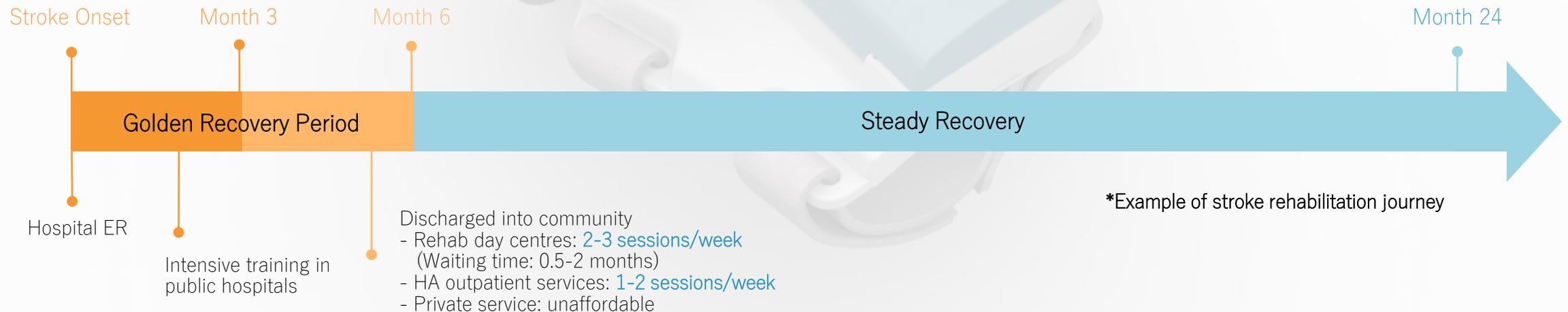
- Large in physical size
- Capital intensive
- Only available in hospitals

Addressable market of existing medical devices

Value proposition of HandyRehab Products:

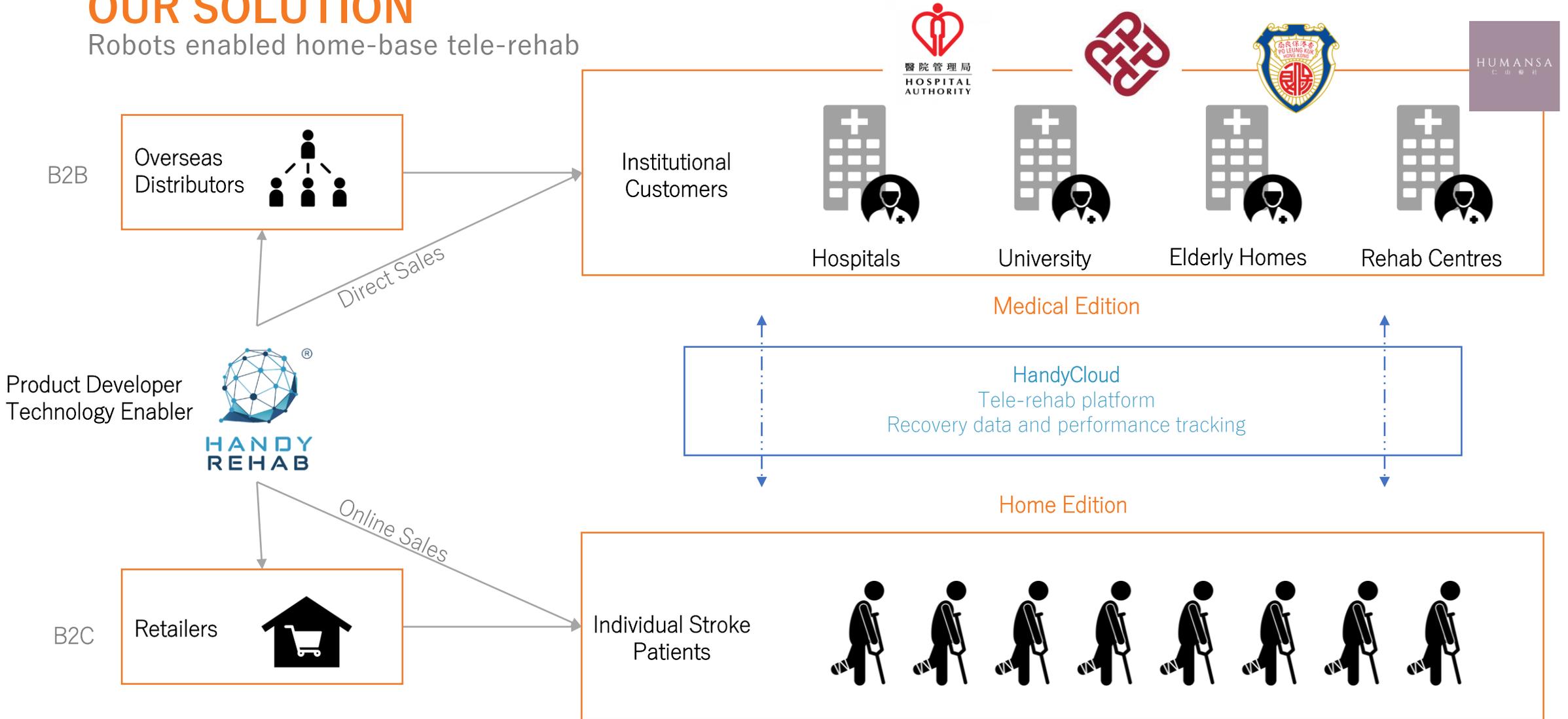
- Affordable
- Portable
- Increase rehab efficiency
- Reduce medical expense

Addressable market of HandyRehab Products



OUR SOLUTION

Robots enabled home-base tele-rehab



HANDYREHAB MEDICAL EDITION

Standard Product Set

Pair of Robotic
Gloves



Rechargeable Batteries



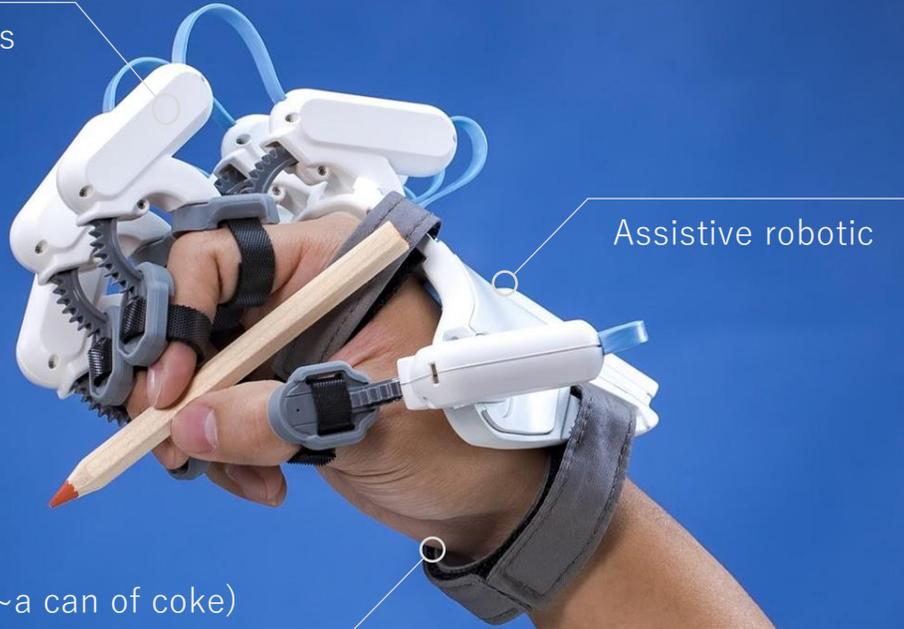
Wireless EMG Sensor



Tablet Computer



100% Wireless



Assistive robotic

380g (~a can of coke)

PRODUCT HIGHLIGHTS

HandyRehab

- Neuro-rehabilitation principle
- Empowers users with upper limb disability – giving them the possibility to do things they otherwise could not
- Patents in China, Australia, Hong Kong
- Customers: public and private hospitals, elderly homes, rehab centres, individual stroke patients



USER FEEDBACK



Source: 發現酷, 香港開電視

“When I first started using the robotic glove, I was not able to move my fingers at all. I realised that robotic training is very important after seeing significant improvements on myself. I strongly believe that stroke patients’ recovery would had been much faster if we had such robotic device in our community centers and elderly day centers, where we can visit everyday.”

(Translated texts)

Ambrose Cheung
Former Chairman, SSP District Council
User of HandyRehab



Source: InnoGPS 創科導航, TVB J5

“Traditional therapeutic methods emphasize on repetitive exercises. Therapist instruct the patient to complete an action until they can finally do it. However, neither does the therapist or patient are sure if the patient is using the correct muscle set. With the robotic exoskeleton system, patients can now receive accurate feedback on their performance, and, hence, greatly reduce the duration of training.”

“Stroke patients, especially the young ones, are very eager to regain their hand function as they would love to be able to go back to work.”

(Translated text)

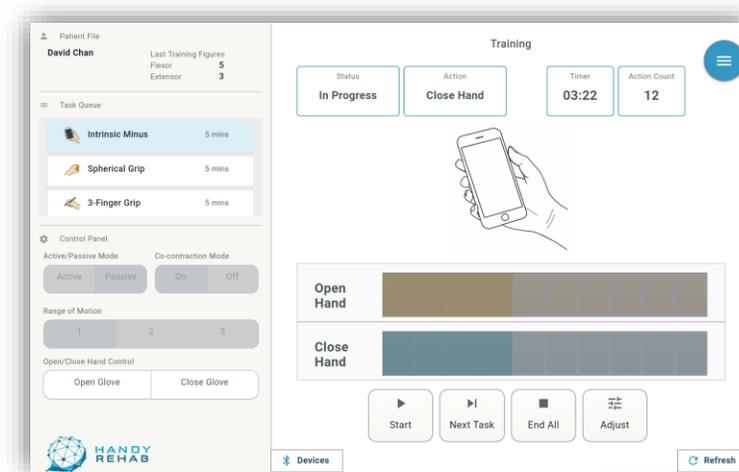
Francis Chan
Physiotherapist, Hong Kong Sheng Kung Hui

PRODUCT FEATURES

Task-based Training



Data-Centric

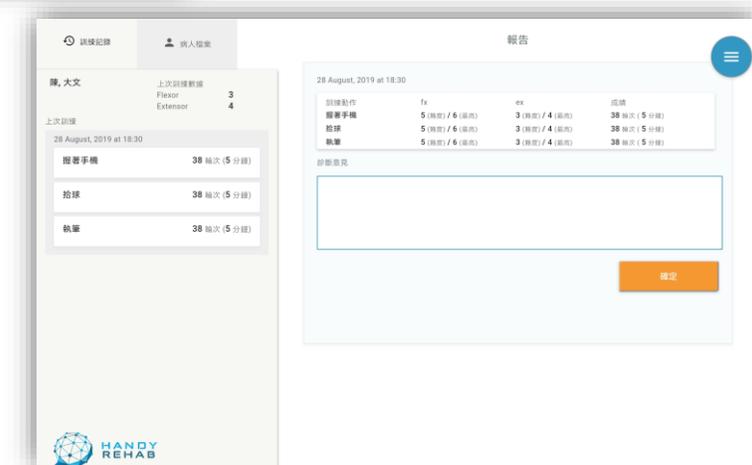


Training Page

- Control panel for caretaker, GUI for user
- Real-time data monitoring

Report Page

- Detailed record of each training session
- Allows both quantitative and qualitative feedback



UPCOMING PRODUCT

HandyRehab – Home Edition

Target Customer

Stroke patients

Sales Channel

Online platform, retail shops for rehab products

Product Positioning

- Daily assistive tool, home-use rehab training product for people with hand function disability
- Suitable for daily use

Pricing

Affordable by individuals

To Market Timeline:

2021 Q2

Awards received:



Users control the robotic glove with the remote



Usage data can be recorded in the app for medical specialists' follow-up



HANDYREHAB HOME EDITION

Demo – Home Training



PATIENTS WE SERVED



AFFORDABLE ROBOTICS FOR REHABILITATION



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Company



Products

