

PMHC

Preventive Medical Health Care Co., Ltd.

Preventive Medicine

Rehabilitation

Geriatric





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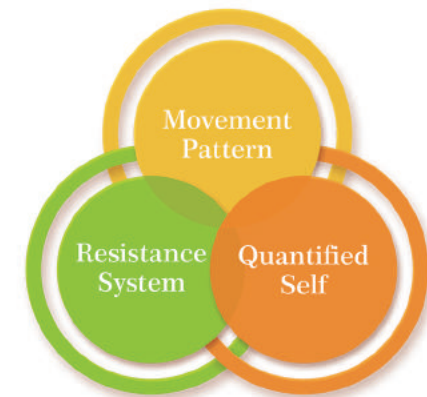
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About SMARC

“SMARC” is a complete series of 8 integrated control training equipment which were designed to improve functional capability , quality of movement and cognitive level with its integrated hardware and software combination.

Training with “SMARC”, users may experience enjoyable & effective training with no physical burden.

Essential Elements



Versatility & Marketability

Integrated Wellness

Sub-health Group

Geriatric Group

Metabolic Syndrome



SMARC

Medical Rehabilitation

Neurological Disorders

Oncological Diseases

Orthopedic Problems



Build



Repair



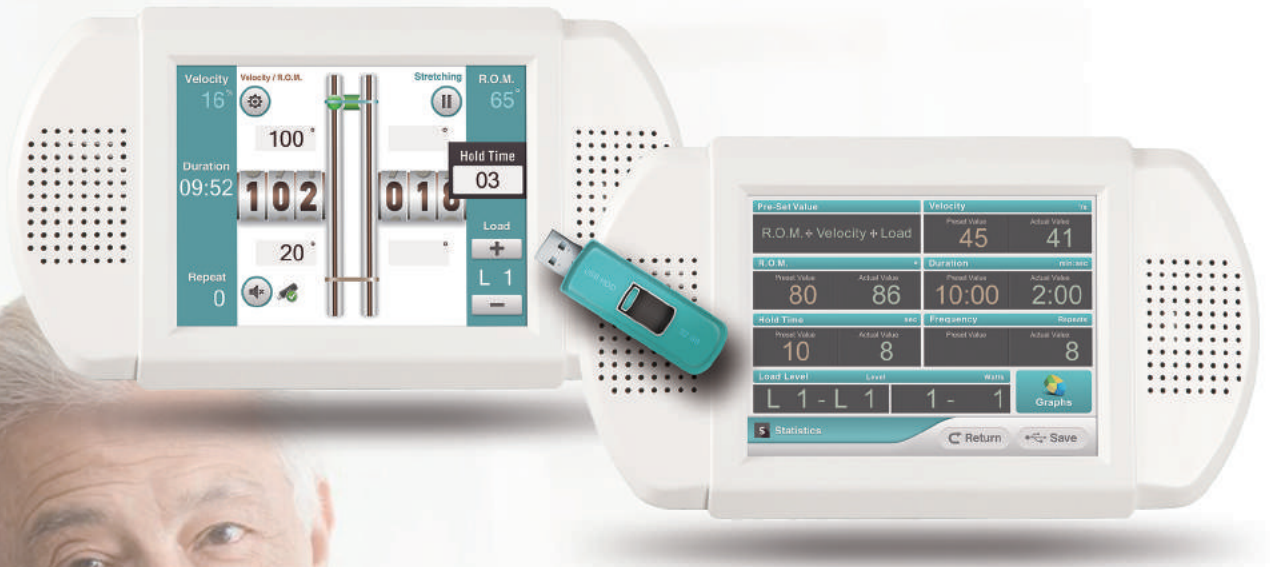
Upper Extremity



Core Muscles



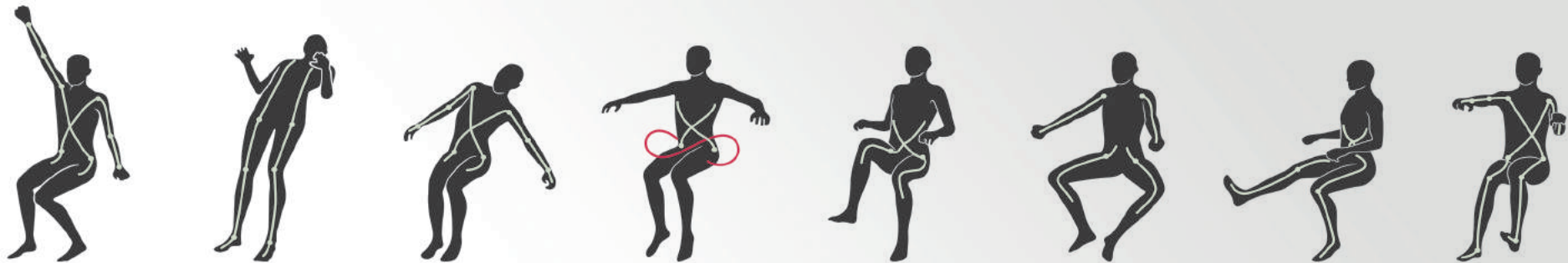
Lower Extremity



NO.1 Integrated Control Training Equipment

BEST TOOL FOR PHYSICAL THERAPY

Quality of Motion + Quantity of Training



Movement Pattern

Reciprocal movement

- Multi-joints
- Multi-muscle groups
- Multi-planes

Maximum functional R.O.M.

Body-limbs linkage movement

EMS Resistance

Nearly **zero** inertial force

- Safety
- Easy to start ; easy to stop

Resistance is always **equal** & **against movement** in counter direction.

Quantified Self

Performance feedback

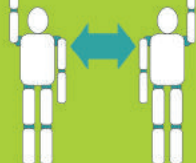
- Digital biofeedback
- Real-time movement feedback
- Visual & audio sensory feedback

Performance data analysis

Lower Limbs

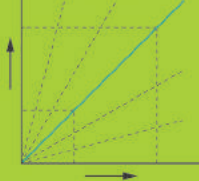


Upper Limbs

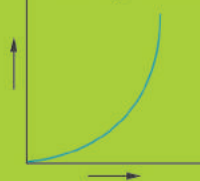


Reciprocal Linkage Movement

EMS



Oil Cylinder



\neq

Load increases smoothly & proportionally as velocity of movement increases.



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FLEXIBILITY



INTEGRATED
STRENGTHENING



CARDIO TRAINING

QUALITY OF MOTION

I. SMARC integrated control training equipment integrates **Quality** of Motion and **Quantity** of Training to optimize total functional wellness.

QUANTITY OF TRAINING



COORDINATION



BALANCE



AGILITY

II. Achieve optimal harmony among mental, spiritual and physical conditions.

I . MEDICAL

■ Medical Mode

Medical Mode is designed for physical therapists or other care providers to customize a movement training / therapeutic program for reconditioning , symptom relief , motor learning / relearning , ADL training and so on.



II . FITNESS

4 training prescription of Fitness Mode : Velocity Control, Stretching, Integrated Strengthening and Active Rhythm. They are prescribed for different training purposes in order to restore the physical condition to best condition.

■ Velocity Control

Training with the perfect combination among Target Velocity, Actual Velocity and Resistance to improve physical condition. Resistance level is automatically adjusted to the dynamic relationship between Target Velocity and Actual Velocity. Resistance increases 1 level each repeat when the Actual Velocity exceeds the Target Velocity. Resistance maintains unchanged or decreases 1 level each repeat when Actual Velocity stays close to or much slower than Target Velocity.

Target Velocity can be reset anytime during training, same as resistance level.

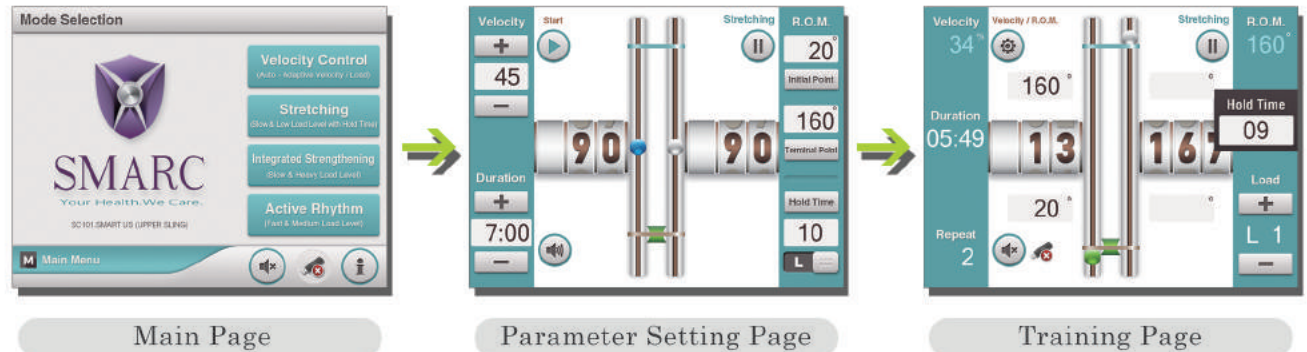


■ Stretching / Integrated Strengthening / Active Rhythm

The core value and essential prerequisite of SMARC is the genuine combination of interactive feedback and integrated control movement.

Hence, 3 prescriptive training modes were designed with different default values to correspond to enhance different functional capabilities.

Resistance level can be adjusted anytime during training.

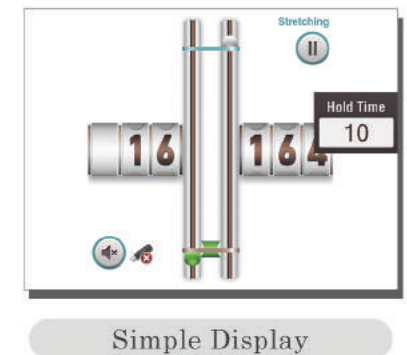


Default Setting Principle

Stretching	
Velocity	Resistance
Low	Low
Functional ROM	Hold Position & Time
Maximum	On

Integrated Strengthening	
Velocity	Resistance
Low - Medium	High
Functional ROM	Hold Position & Time
Medium	Off

Active Rhythm	
Velocity	Resistance
High	Medium
Functional ROM	Hold Position & Time
Medium	Off



4 Bio-Kinetic Seat Highlights



Sit-to-Rotate Function (lockable)

The seat will be free to rotate once the user sits on the seat. There's a red locking device for safety or training purpose. The user may fix seat with no rotation function by locking the red device.



Rotation Adjustment Set

Press down the yellow handle to rotate the seat for easy entry, especially for seniors and movement-challenged users coming with wheelchair.



Seat Position Adjustment

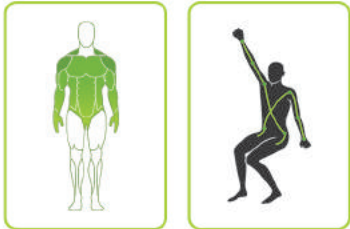
Adjust the seat position (front & back) by lifting the yellow adjustment bar.



Lumbar Support Safety Pad

Stabilize and protect the user with the special wrap-around lumbar support pad. (Standard equipped on SC101)

SC101 US (Upper Sling)



U/E (Shoulder-Scapula / Elbow / Wrist)
Trunk (Core Muscles)



Demonstration



Reciprocal Shoulder Flexion + External Rotation /
Shoulder Extension + Internal Rotation with
Trunk Rotation

Product Highlight



Multi-Position Handle Bar



Wrap-Around Lumbar
Support Pad

Initiate the movement from **shoulder-scapula** to integrate the movement between upper extremities (flexion + external rotation / extension + internal rotation) and trunk (rotation).

SC102 TILT



L/E (Hip / Knee / Ankle)
Trunk (Core Muscles)



Demonstration



Reciprocal Trunk Flexion / Extension



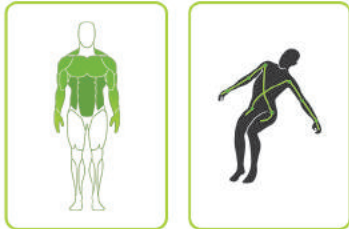
Angle Limiter
(Avoid Over stretching)



Multi-Position Foot Platform

Initiate the movement from **low back & hip** to integrate the movement between lower extremities (flexion / extension) and trunk (flexion / extension).

SC103 ARC



U/E (Shoulder-Scapula / Elbow / Wrist)
Trunk (Core Muscles)



Demonstration



Reciprocal Trunk Flexion / Extension
(Forward Reach)



Trunk Lateral Flexion (Lateral Reach)

Product Highlight



Safety Side Bar



Stabilizer Handle Bar

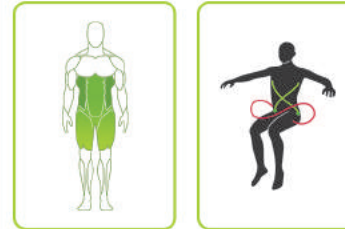


Angle Limiter (Avoid Over stretching and Falling)

Initiate the movement from **upper extremities** to integrate the movement between upper extremities (flexion / extension) & trunk (forward bending / backward leaning).

Initiate the movement from **lumbar** with straightened upper extremities for the movement of trunk (forward bending / backward leaning or lateral bending).

SC104 CORE



Pelvis
Trunk (Core Muscles)



Demonstration



Figure of 8 Pelvic Movement in Kneeling Position



Figure of 8 Pelvic Movement in Sitting Position

Product Highlight



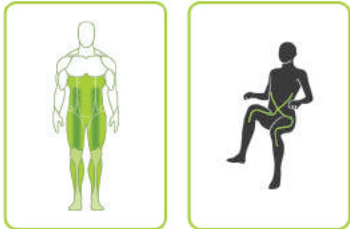
Rotational Seat



Safety Lock Device

Initiate the movement from **pelvis** to integrate the movement between core muscles & pelvis for rotation & figure of 8 movement.

SC105 PSOAS



L/E (Hip / Knee)
Trunk (Core Muscles)



Demonstration



Reciprocal Hip & Knee Flexion / Extension with
Trunk Rotation

Product Highlight



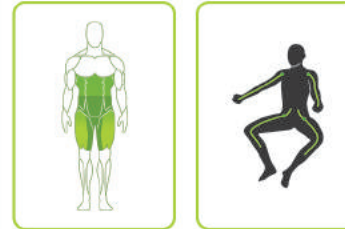
Safety Side Bar



Stabilizer Handle Bar

Initiate the movement from **hip** to integrate the movement between lower extremities (flexion / extension) and trunk (rotation).

SC106 COXA



L/E (Hip)
Trunk (Pelvic Floor Muscles)



Demonstration



Reciprocal Hip Abduction + External Rotation /
Hip Adduction + Internal Rotation

Product Highlight



Safety Side Bar



Lock Adjustment Knob

Initiate the movement from **hip** to integrate the movement between hip (abduction + external rotation / adduction + internal rotation) and core contraction.

SC107 **LS** (Lower Sling)



L/E (Knee)
Trunk (Core Muscles)



Demonstration



Reciprocal Knee Flexion / Extension with
Trunk Rotation

Product Highlight



Safety Side Bar



Stabilizer Handle Bar

SC108 **CS** (Cross Sling)



U/E (Shoulder-Scapula / Elbow / Wrist)
L/E (Hip / Knee / Ankle)
Trunk (Core Muscles)



Demonstration



Total Body Movement (Wrist & Elbow & Shoulder
& Hip & Knee & Ankle) with Trunk Rotation



Multi-Function Handle
Bar



Stabilizer Handle Bar

Product Highlight

Initiate the movement from **knee** to integrate the movement between knee (flexion / extension) and trunk (rotation).

Initiate the movement from **upper or lower extremities** to integrate the movement between extremities (flexion / extension) and trunk (rotation).

Neurological Disorders Movement Therapy

Motor Relearning / ADL Training

■ Cerebral Vascular Accident

Balance Training (Static & Dynamic Training)



SC103

Lateral Reach Training
(C.O.G. Left & Right)



SC103

Forward Reach Training
(C.O.G. Anterior & Posterior)



SC104

Weight Shift Training
(C.O.G. Left & Right)



SC104

Weight Shift Training
(C.O.G. Left & Right)

Motor Control Training



SC101

Facilitate Upper Extremities (U/E)
PNF D2 Flexion Movement



SC105

Facilitate Isolated Hip Flexors
& Extensors Movement
(Pre-Ambulation Training)



SC107

Facilitate Isolated Knee Flexors
& Extensors Movement



SC108

Total Body Coordination Training
(Eye-Hand-Body Coordination)



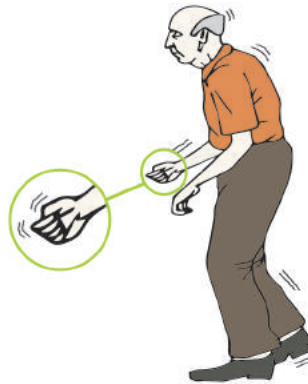
■ Parkinson's Disease

Posture Instability



SC103

- Core Muscles Strengthening
- **Balance Training**
 - » Lateral Reach Training
 - » Forward Reach Training
 - » Sit to Stand Training



Stiffness & Weakness of Trunk & Limbs



SC102

- Ventral Side of Trunk Stretching (**Hunchback Correction**)
- Lower Extremities (L/E) Strengthening by **Closed Chain Exercise**

Coordination Disorder



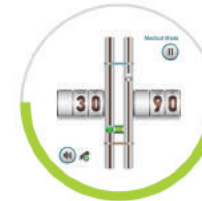
SC108

- Total Body Coordination Training
 - » **Reciprocal Movement**
 - » U/E link with L/E
 - » **Left Side links with Right Side**

Festinating Gait



SC105

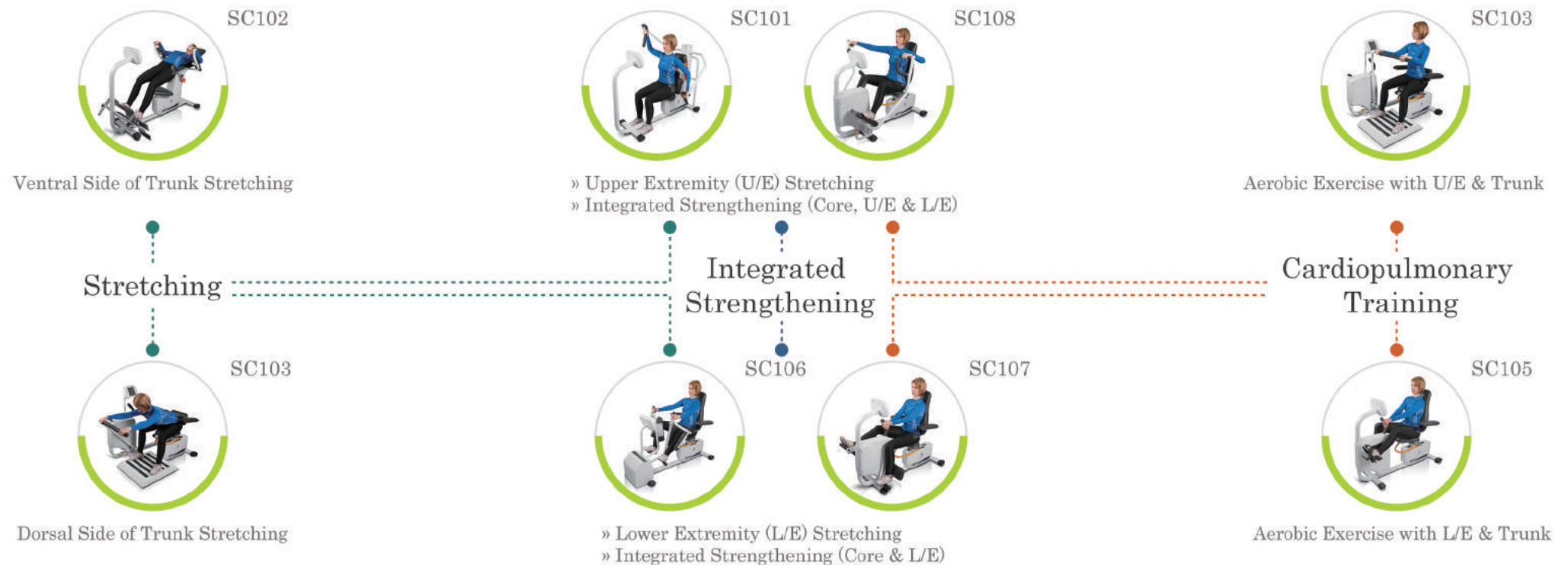


- Gait Correction Training
 - » Facilitate Reciprocal Movement with **Prescribed R.O.M.** (**Visual & Motion Feedback**)

Oncological Diseases Movement Therapy

Health Promotion / Complication Prevention

■ Cancer-Related Fatigue Improvement & Immunity / Musculoskeletal System Enhancement



* Upper Extremities (U/E) Lymphedema: U/E integrated strengthening should be avoided.

* Lower Extremities (L/E) Lymphedema: L/E integrated strengthening should be avoided.

■ Lymphedema Management



Geriatric Group Reconditioning

Integrated Wellness Enhancement

Fall Prevention



SC103

› Balance Training (Lateral Weight Shifting)



SC103

› Sit to Stand Training



SC108

› Total Body Coordination Training

ADL / IADL Training



SC101

› U/E Integrated Control Training
(Reaching, Bathing)



SC105

› L/E Integrated Control Training
(Walking, Standing, Squatting)
› Cardiopulmonary Training



SC106

› Pelvic Floor Muscles Strengthening
(Urinary Frequency & Nocturia Improvement)
› Core Muscles Strengthening

Sub-health Group Symptom Relief

Integrated Wellness Enhancement



SC101

› Stretching Exercise
(Upper Extremity & Lateral Trunk)



SC102

› Stretching Exercise
(Ventral Side of Total Body)



SC103

› Stretching Exercise
(Upper Extremity, Lower Extremity & Low Back)
› Core Muscles Strengthening



SC104

› Core Muscles Strengthening



SC103

› Aerobic Exercise
(Upper Extremity & Core Muscles Strengthening)



SC105

› Aerobic Exercise
(Lower Extremity & Core Muscles Strengthening)

