HUR **SmartBalance**

A NEW STANDARD IN BALANCE TESTING AND TRAINING

HUR
For Lifelong Strength

THE PERFECT TOOL FOR ASSESSING AND TRAINING FOR BALANCE

HUR SmartBalance is the perfect tool for assessing balance, identifying users with a high risk for falling, and implementing results-based fall prevention and balance training programs.

HUR SmartBalance consists of the following:

Balance Trainer BTG4*
Support Rail
SmartBalance Software
Touchscreen Computer
Foam
RFID reader

* BTG4 is fixed to support rail and thus cannot be used separately.

Weight:	60 kg / 132.3 lbs
Width:	102 cm / 40,2 in
Length:	106 cm / 41,7 in
Height:	192 cm / 75,6 in

Why Balance Matters

Balance is an ability that is important to maintaining strength and independence. Every day activities like climbing stairs and carrying groceries require good balance.

Balance is determined by a complex combination of musculoskeletals actions, visual inputs and the inner ear's vestibular system. Effective balance programs can assist in establishing baseline measurements and aid in suggesting individualised training regimes.

HUR SmartBalance combines scientific balance assessments and a variety of interactive training programs into one complete balance program. Balance scores are provided in addition to the ability to compare previous balance tests in order to track progress.

Testing and Training on the same device • Built-in testing protocols • Personalized Games • Low step up height • Wheelchair accessible • Sturdy support rail for safety – Height adjustable screen

As a technology-driven testing, training, and reporting system, HUR SmartBalance offers:

› Scientific Balance Assessments such as Romberg's and Limits of Stability
› Versatile options for focused, personalized training.
› Customized training recommendations and easy comparison of previous balance tests make it easy to analyse change.

The new HUR SmartBalance makes it easier than ever for next-generation rehabilitation, senior living, and inclusive wellness providers to respond to healthcare's increasingly results-driven demands.

HUR SmartBalance Software

> **Perfect solution for seniors, rehabilitation and hospitals**

› Interactive easy-to-use touch screen software
› Testing, training and games all in solution, with the ability to indi vidualise games for rehabilitation purposes
› On screen interpretation and training guidelines of test results
› Unique Balance Score for easy understanding and client reports
› Compatible with HUR SmartTouch solutions
› Optimized for independent training

HUR Balance Premium Software

> **Excellent for Research and serious Testing needs**

› Testing software designed for research
› Several testing protocols
› Custom protocol creating wizard
› Versatile reporting capabilities
› Store numerous parameters and raw data
› Full export and import capabilities

Available in both software solutions:

› Balance assessment and interactive balance training
› Motivational and fun games for cognition, coordination and balance.
› Age and Gender specific normative data
› Traffic light results with comparison to normative data
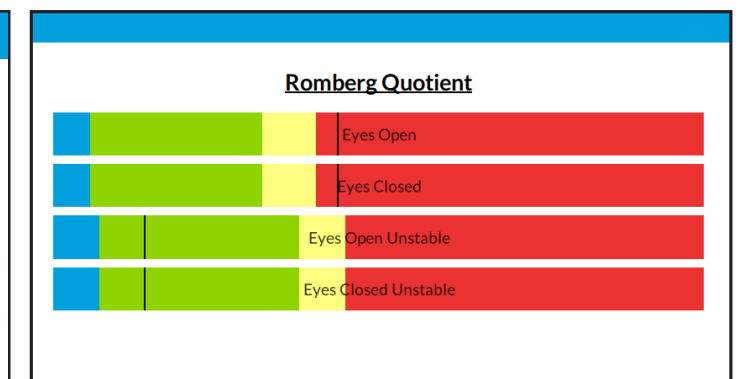› The level of difficulty of the training can be customized

Scientific Balance Assessments

HUR SmartBalance software includes two balance testing protocols that provide a beneficial baseline measurement to assess an individuals balance.

Romberg Test
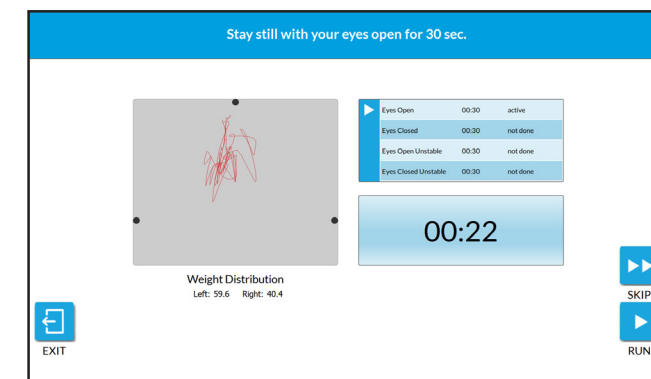

Romberg Test

Romberg Quotient Result

› The Romberg test measures postural sway during different test conditions and is used to identify problems with balance including the visual, vestibular (inner ear) and proprioceptic (sense of position) systems.
› The test results provide objective biomechanical data on an individual's sway.
› The Romberg Quotient describes the effect of the visual input on the postural stability.

Limits of Stability Test
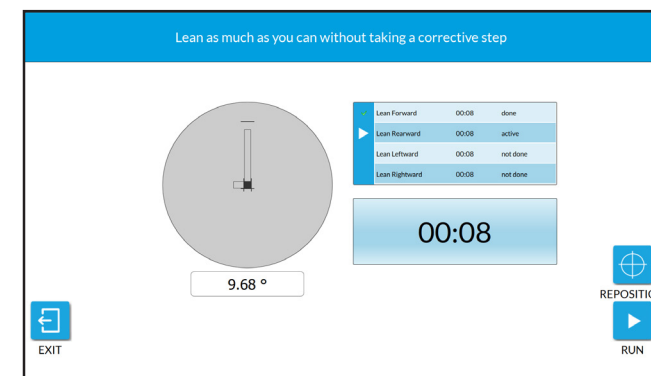
Limits of Stability Test
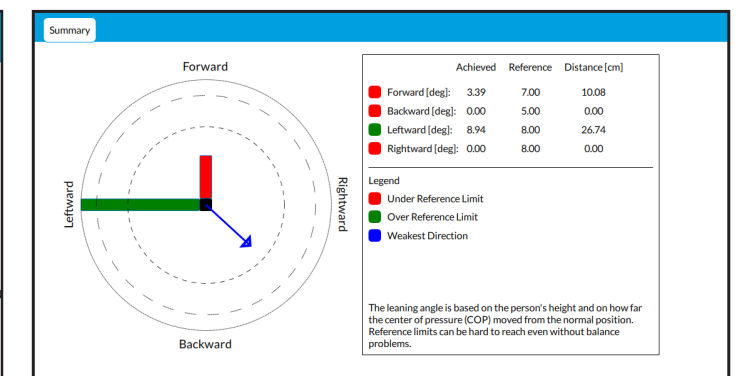
Limits of Stability Test Result

› Limits of stability test defines an individual's outmost range (base of support) of leaning to any direction without changing the foot position ,e.g. stepping or reaching for support.
› Graph shows results as bars and circles describe reference limits. Blue arrow identifies the weakest leaning direction.

saves staff time

Easier interpretation saves time

HUR SmartBalance software includes easy and clear traffic light colored results and guidelines for training.

The reports offer clear visual feedback that provides users with insights about their balance.

› **Large normative data**

› **Age and Gender** specific comparison to normative data

› **Results shown** in clear and understandable traffic light format

› **Progress** with clear graphical comparison

HUR Products are applied to a wide range of reserach worldwide.
To find out more about scientific research, please visit
www.hur.fi/en/science/research/index

Easy traffic light color interpretation of the results
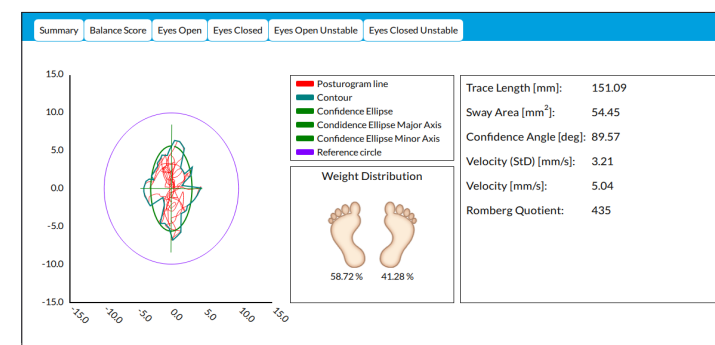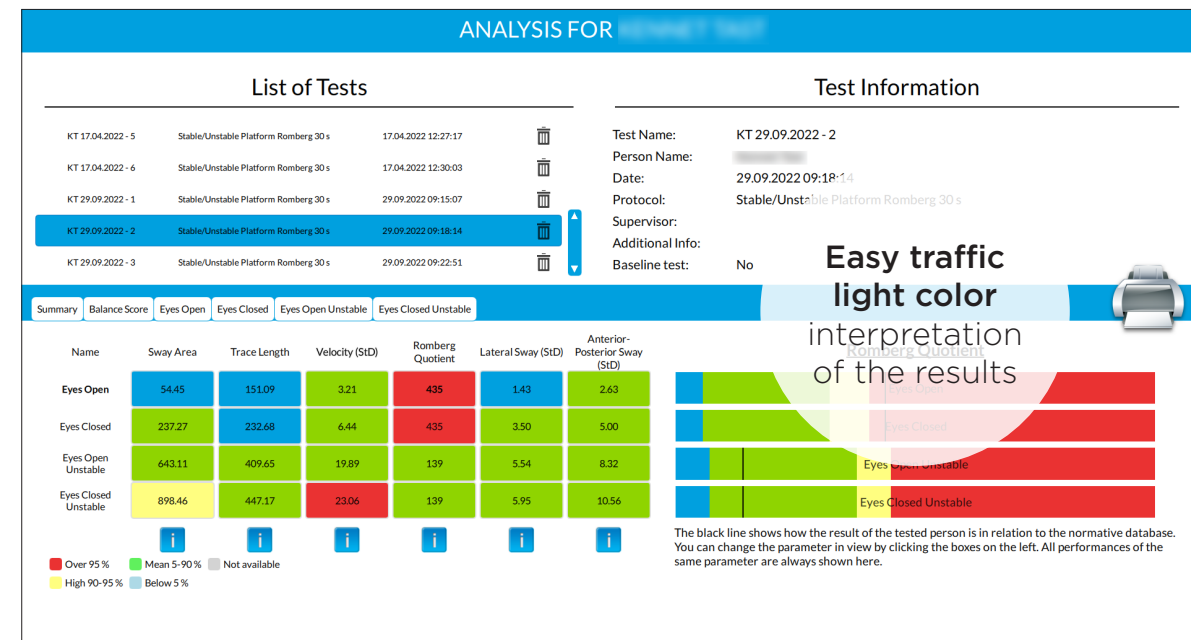
› **Test results** are automatically displayed
› The posturogram shows a highly accurate view of the persons COP movement (sway) during the test.
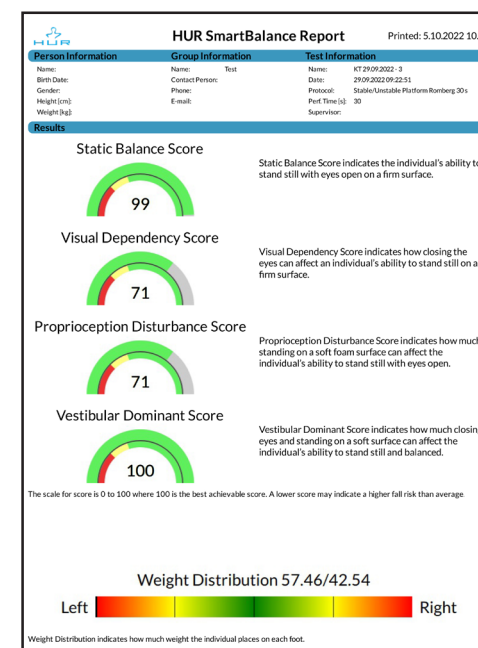
› **Balance Scores**
for easy interpretation of the persons balance

› **Comparison data**
for further analysis of the progress

The interactive exercises available with HUR SmartBalance help to improve users' balance by training their stabilization and weight shift through games designed to re-train their muscle memory, strengthen the core and stimulate their brain.

HUR SmartBalance Software includes Motivational Balance and Cognitive Trainers and Fun Balance Games.

The settings (e.g. movement direction, difficulty level, length of training) in the Trainers can be individually adjusted depending on the balance skills and training needs of each user.

MAZE
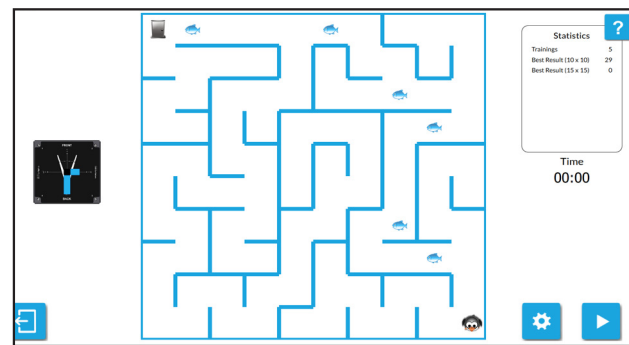
› The goal in the Maze Trainer is to lead the Penguin to the Exit as fast as possible.
› Control the player by leaning to different directions.
› The more you lean, the faster the Penguin moves.

N-Back Test
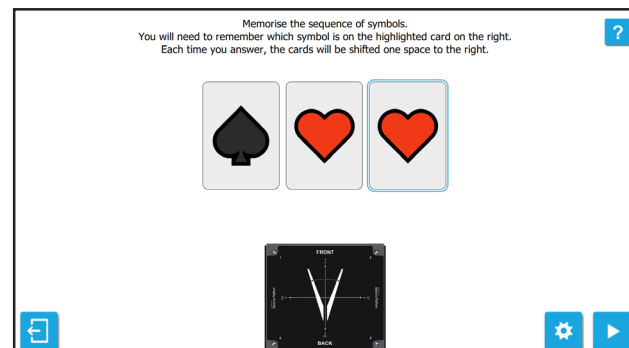
› The N-Back Test offers training for the working memory.
› The task is to remember the card's sequence. If the new card is the same as the one shown before (1-5 cards ago), then answer yes by stepping in the guided direction on the platform and if not, the step to the other direction.

Stop Signal Test
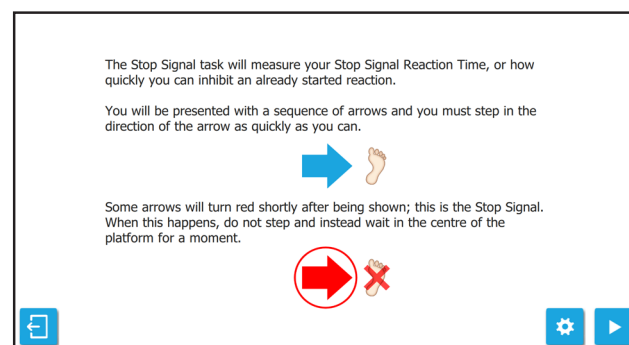
› The Stop Signal Task measures response inhibition (impulse control).
› The task is to step in the direction of a green arrow shown on the screen.
› If however the arrow turns red after a short delay, the step should be withdrawn.

Chase
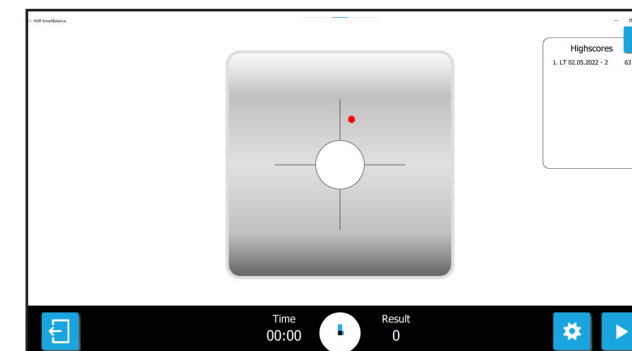
› In the Chase Trainer, the goal is to stay inside the moving circle with your COP-position.
› In some of the courses, the circle will change its direction half way.

Tennis:
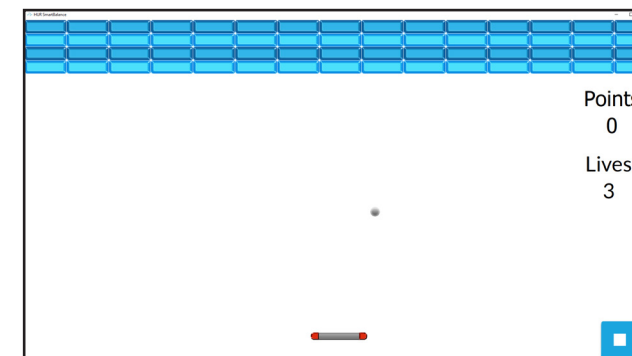
› The goal in the Tennis Trainer is to smash as many blocks as possible.
› The user controls the platform by leaning left and right.
› Keep the ball in play by blocking it with the platform.

Static Pattern
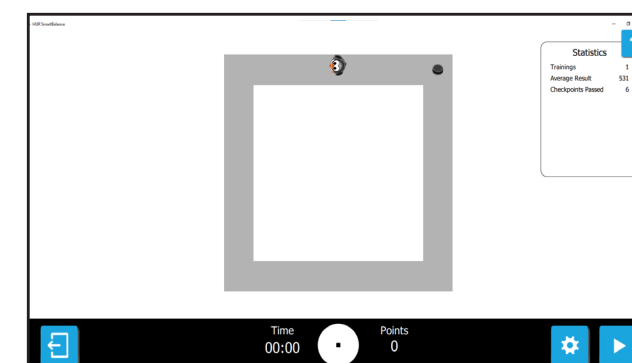
› In the Static Pattern Trainer, the goal is to lead the penguin from puck to puck while staying inside the colored track.
› Control the player by leaning to different directions.

Stepper
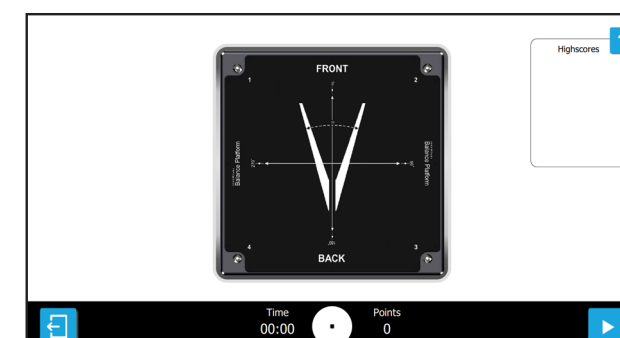
› In the Stepper trainer, the goal is to step on the target corners as fast as possible.
› Star will indicate the target corner.
› The stepper trainer simulates slipping and stumbling and trains fast recovery.

GAMES

HUR SmartBalance Software offers a range of motivational interactive games. The games use automated skill challenges and high-score record-keeping to engage users and keep them motivated in balance training programs.

HUR SmartBalance offers the following games:

Tux Kart

› 3D kart racing game with a variety of characters, tracks, and modes to play.
› Provide an enjoyable experience for all ages.
› 9 tracks in varied environments.

Tux Racer

› Winter sports racing video game
› Courses are composed of various terrain types that affect Tux's performance.
› Tux racer offers High Score List to increase motivation and engagement.

Snake
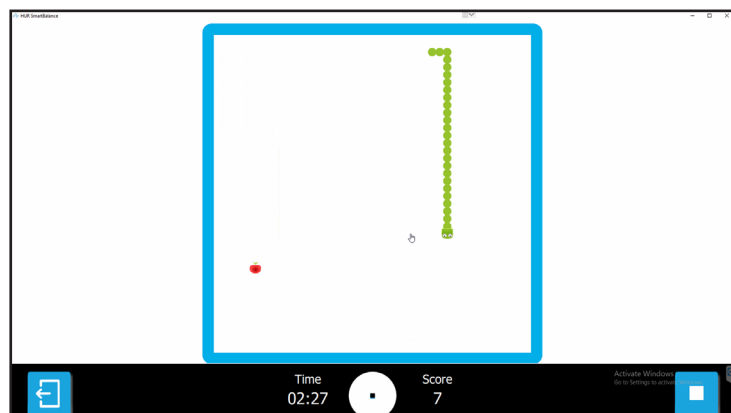
› In the Snake game, the goal is to collect as many apples as possible without hitting the wall or the snake itself.
› After each apple the snake grows in length which increases difficulty.
› A fun classic game which improves physical and cognitive functioning.

Space Shooter

› The goal is to shoot all approaching enemy vessels
› Player should dodge every other object
› With its engaging storyline and nostalgic 80s-inspired visuals, will evoke memories of classic retro games.

Ski Jump

› To maximize jump distance, players should focus on a quick, powerful push-off while adjusting their body position. Leaning forward or backward helps control the flight and optimize the jump.
› A real jump isn't necessary, you can keep your feet on the ground during takeoff.
› Features multiplayer support.

❯ **Progress tracking** that's visual, intuitive, and motivational

❯ Easy to read **visual dashboard** displays results in real-time

❯ **Intuitively organized** training information and personalized exercise options

❯ **Balance score progress** tracking is easy to understand and highly motivational

❯ **Customized training recommendations** based on comparisons of previous balance tests make it easy to see improvements and fuels motivation

❯ **Customized setting options** make it easy to create targeted, personalized training programs.

❯ Fun, interactive stabilization games that **build core strength and muscle memory**

❯ **Easy access** with low step, support rail, and safe, wide platform

❯ **Touch screen adjustments** make changing activities and difficulty levels easy
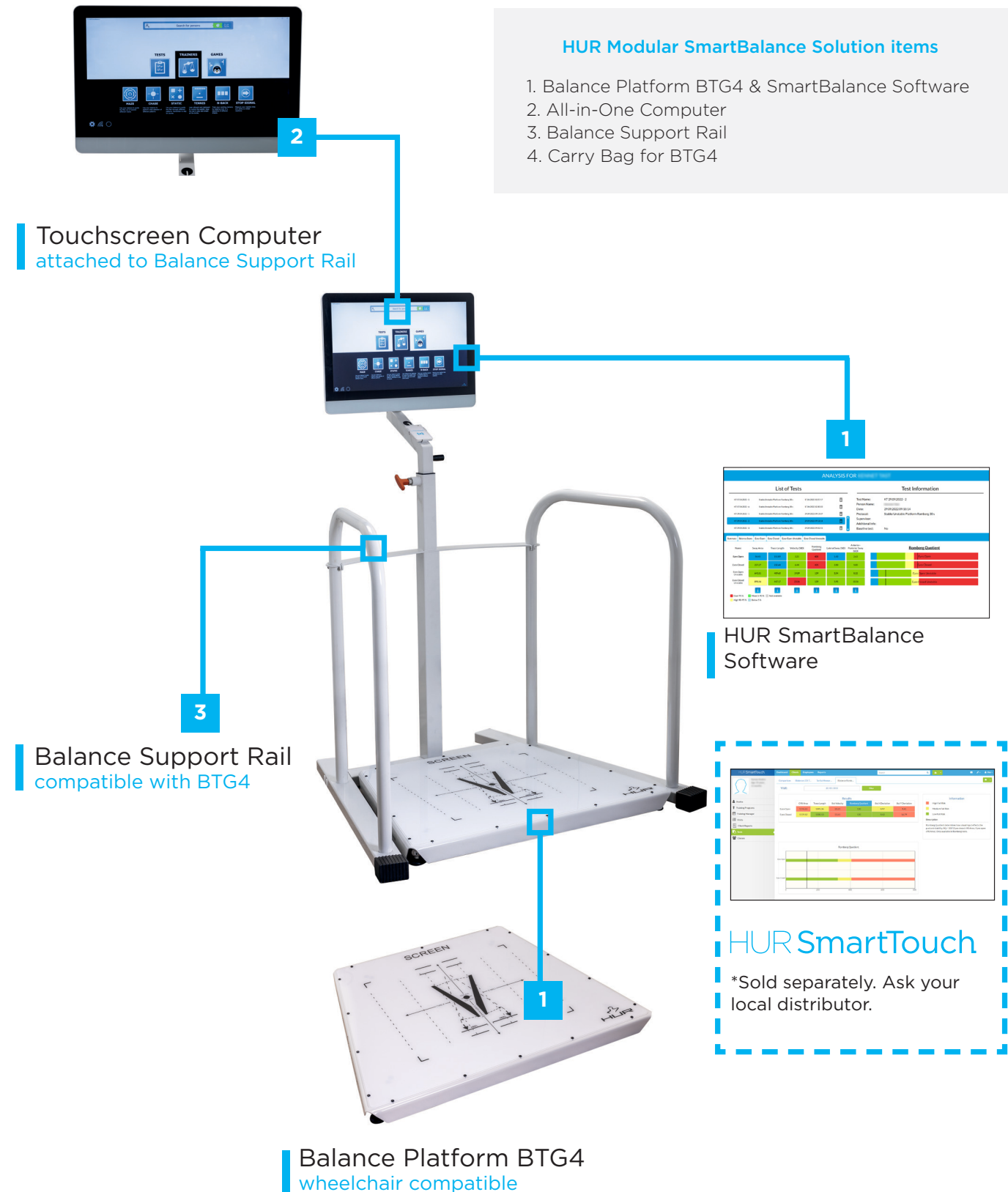

HUR SmartTouch

HUR SmartBalance is compatible with HUR SmartTouch

Users can set the balance training program and check the test result with HUR SmartTouch Software. This is a perfect solution for personalized strength and balance training.
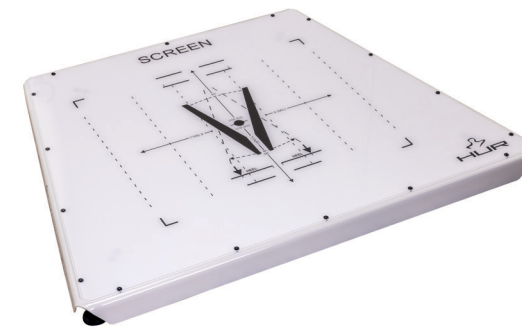
Build your own balance system

HUR Modular SmartBalance Solution items

1. Balance Platform BTG4 & SmartBalance Software
2. All-in-One Computer
3. Balance Support Rail
4. Carry Bag for BTG4

2

Touchscreen Computer
attached to Balance Support Rail

1

HUR SmartBalance Software

3

Balance Support Rail
compatible with BTG4

1

HUR SmartTouch

*Sold separately. Ask your local distributor.

1

Balance Platform BTG4
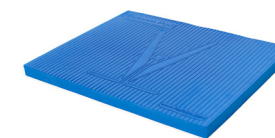wheelchair compatible

The HUR SmartBalance is a complete solution for balance assessment and training. You can also purchase the HUR BTG4 balance platform separately and add the needed accessories according to your needs. The modular solution is your choice as well if you need a more portable solution as the platform is separate from the rail system.

BALANCE PLATFORM BTG4 (2204)

› Package includes platform, foam pad and SmartBalance software.
› Requires Windows computer (sold separately).
› Full training and testing capabilities.
› Enables seated core balance training with most wheelchairs.
› Portable – weight 15 kg (32lb)
› Low step-up height of 6cm (2,5") increases safety.
› No external power required. (USB powered)

Weight:	15 kg / 33 lbs
Width:	96 cm / 38 in
Length:	70 cm / 28 in
Height:	6,5 cm / 2,6 in

Foam pad is designed especially for the Romberg Stable Unstable test.

All-In-One Touchscreen Computer (2230)
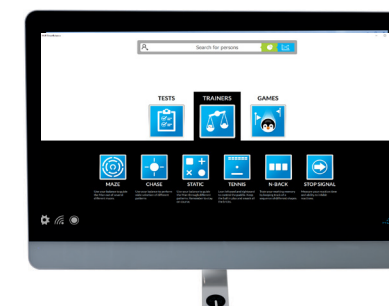
› A premium brand (currently HP) 27 inch
› Easily attached to the iSupport.
› Can also be used on a table (stand included).

iSupport Rail (2020)

› A sturdy rail system which increases safety especially for frail persons.
› Height adjustable

Carry Bag for BTG4 (9070-3)

› Carry Bag designed to carry the BTG4.
› A protective bag for easy storage.

YOUR PARTNER FOR
LIFELONG STRENGTH

Strength and balance are key factors for a long, happy and independent life.

The world-leading HUR scientific solutions consisting of intelligent equipment and software offer a smart and enjoyable training and rehabilitation experience that provide results. The effect is evident in the well-being of the user, the easy and motivating work processes for the instructor, and in the efficiency and profitability for the facility owner.

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