



JUMP OVER YOUR LIMITS

Advanced training equipment for strength and conditioning,
fitness and re-athletization

Catalogue June 2022

www.lite-sport.com

LITE

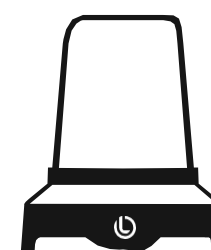
LITE is the startup company created to improve sports performance and re-athletization. We know that every little detail can make a huge difference in training. For this reason, we design innovative devices with an outstanding care for the details, in order to allow for a more effective workout.

Each LITE device is conceptualized by strength and conditioning, rehabilitators and athletes, and then engineered by experts of the sector, completely in Italy to guarantee the highest quality.

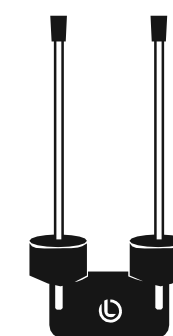
PERFORMANCE LINE

The PERFORMANCE LINE is the top level line of LITE devices, which includes the most modern technologies for strength and conditioning and re-athletization. Each device can be purchased individually, and is characterized by the unique and innovative LITE design, which enhances versatility and practicality of use.

Ideal for professionals in the sport sector such as strength and conditioning coaches, personal trainers, physiotherapists and motor rehabilitators who aim to offer the best training experience and maximize results, creating a more modern and effective training context.



INERTIA
Flywheel device



MOMENTUM
Landmine



AER
Pneumatic cable machine

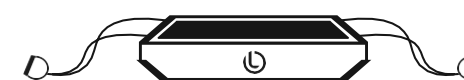


FLUCTUS
Proprioceptive box

PERFORMANCEBOARD

The PERFORMANCE BOARD is LITE's all-in-one device, designed to offer maximum versatility in a compact and easy to carry design.

Thanks to LITE's patent-pending design, the PERFORMANCE BOARD allows the use of different technologies in a single device. It is therefore ideal for those who need space-saving training equipment and want to perform a varied and modern workout both at home and outdoors.



PLATFORM WITH ELASTIC BANDS



SLED



FLYWHEEL PLATFORM



FREE WEIGHTS



SLIDE BOARD

LITE MOMENTUM

The first landmine born as a landmine and not as a barbell



"Optimize set-up time, freedom of movement and exercise monitoring during sport specific movements and Olympic lift variations"

LITE momentum consists of two stainless steel rods, each fixed to a biaxial joint, on which two weights, can be locked in different points, so as to vary the resistance thanks to LITE's patent-pending mechanism.

To exercise with LITE MOMENTUM you just need to move the ergonomic handles inserted in the ends of the steel rods. Like when using traditional landmine, resistance decreases while lifting the rod. This is due to the fact that when the working angle changes, it also changes the intensity of the component of the weight force vector perpendicular to the ground.

LITE MOMENTUM is particularly effective to perform strength- and power- based exercises that involve pushing, pulling and rotational movements.

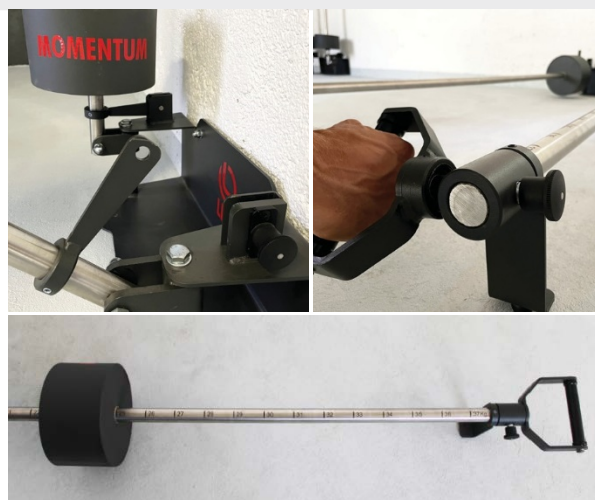
LANDMINE TRAINING ADVANTAGES

The force applied to win resistance is not perpendicular to the ground.

- You can combine coordinative movements on different directions as the rods move on two axes.
- Explosive movements are performed in greater safety compared to free weights since the rods move along well-defined conferences.
-

LITE MOMENTUM ADVANTAGES

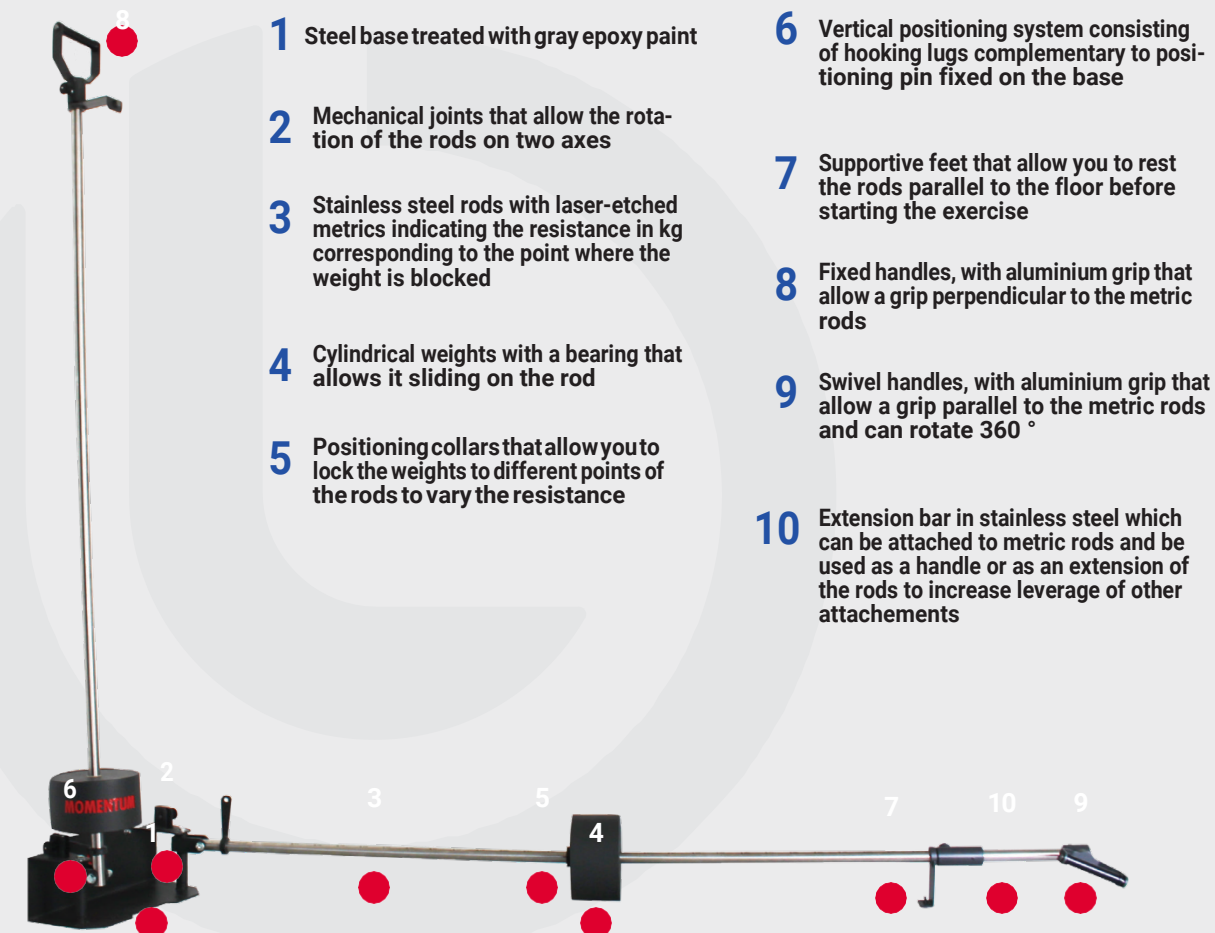
- The two rods allow you to perform unilateral exercises independently between the limbs which better stimulates motor control and coordination of movements.
- Accessories such as handles are optimized to perform the most varied exercises with biomechanically functional handles.
- The integrated accelerometer allows you to measure training data such as working angle, force and acceleration, which is crucial to monitor and plan explosive training programs.
- The hooking system that allows you to save space by storing LITE MOMENTUM upright the wall in less than 30cm space.



THE TIME IS GOLD

The patent-pending system of LITE MOMENTUM allows the resistance to be varied quickly and millimetrically without removing or adding additional weights, simply by blocking the same weight in different points of the metric rod, with specific references that indicate the equivalent weight in kg.

COMPONENTS



FEATURES

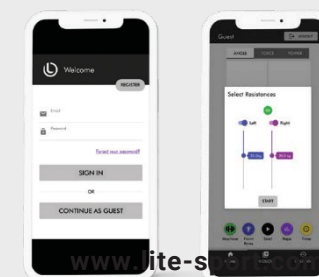
Base size
Maximum length in use *
Total height in vertical storing position *
Machine weight
Handles grip size
Handles height from the ground in horizontal position
Maximum resistance per rod *
Minimum resistance per rod *
Sensor power supply

VALUES

50 x 21 x 19 cm
218 cm
210 cm
100 kg
13 x 28 cm
14 cm
39 kg
9 kg
5V-26°

*measurements without accessories inserted. Accessories can be up to 14cm long

MONITOR YOUR WORKOUT WITH LITEAPP



LITE App allows you to check in real-time data of your workout, such as force, power, acceleration and angular displacement.

The data is detected through an accelerometer sensor, available as an option, which can be applied directly on the rods.

LITE INERTIA

The flywheel platform that combines versatility and quick set-up for the improvement of sports performance and re-athletization

LITE INERTIA is the flywheel platform designed by LITE that allows you to carry out exercises against resistance that is generated by the inertia and kinetic energy of a spinning flywheel instead of weights. LITE INERTIA is composed of a rotational shaft, to which both a rope and a flywheel are attached.

To start the exercise it is necessary to roll up the rope around the rotational shaft. Then a concentric action is performed to unroll rope from the rotational shaft and spin the flywheel.

When the rope is fully unrolled, the inertia and kinetic energy of the flywheel connected to the shaft induced the rope to roll up in the opposite direction and an eccentric action is then required to decelerate the rope and begin a new exercise cycle.

FLYWHEEL TRAINING ADVANTAGES

Muscles are about 30% stronger when they contract eccentrically. If the rope is decelerated in a shorter time than how it is accelerated, muscles can be overloaded eccentric to induce higher training stimuli.

Flywheel-based resistance also depends on the velocity of the exercise; therefore it is possible to adapt the load at different working angles during the same

repetition by changing the speed of contraction.

Ability to produce maximum contractions during each repetition and not only during the last repetition differently from free weights, as the resistance adjusts to the speed that decreases with fatigue.

LITE INERTIA ADVANTAGES

- The integrated quick resistance change.
- The quick rope regulation system that allows you to set up the rope length according to the range of motion of each

exercise in just a second and from above the platform

- The handlebar to assist balance.
- The optimized design to perform exercises above and outside the platform.
- The cylindrical shaft instead of conical, which allows you to generate greater overload during the eccentric phase of the exercise.
- Possibility of combining the wall guide for exercises as an open kinetic chain.



"Improve coordination, modulate resistance during each rep and eccentrically overload your muscles while performing sport specific movements"



CHANGE RESISTANCE IN A SECOND

The patented resistance change system, allows you to vary up to 5 resistances at the same speed of exercise, without changing the flywheel and just in a second.

The flywheel is partially covered and guarantees greater safety during the device use, making it ideal for environments where several people train at the same time.

COMPONENTS



- 1 Steel platform treated with gray epoxy paint
- 2 Partially covered steel flywheel
- 3 7mm dyneema rope which is fixed to the rotating shaft
- 4 Integrated resistance change system composed of coloured sliding sleeve able to slide on the rotational shaft to vary its diameter
- 5 Quick rope regulation system that allows you to release and lock the rope by pressing a pedal with the foot
- 6 Accessory attachment kit consisting of a pulley and carabiner
- 7 Support handlebar, which assists balance and helps to modulate concentric/eccentric phase with the help of the hands
- 8 One size harness with a maximum capacity of 400 kg
- 9 One size belt with a maximum capacity of 400 kg
- 10 Handles with 30 mm grip
- 11 Rotating steel handlebar with 30 mm diameter
- 12 Adjustable tablet holder for a 10-11 inches tablet
- 13 Inclined platform to facilitate exercise involving lateral pushing movements against the device

FEATURES

Max user weight	160 kg
Max size	91 x 74,5 x 125 cm
Platform exercise surface size	88 X 50 X 24 cm
Machine weight	64 kg
Sensor power supply	5V-26°

VALUES

With the same operating speed, the patented mechanism of LITE allows you to change the resistance instantly by changing the shaft diameter as indicated in the table below.

Resistance at exercise speed of 0,5 m·s⁻² (inertia equivalent)

Sled colour	Resistance	Diameter	Direct attachment	with pulley
	Shaft without sliding sleeve	25 mm	264 N (0,075 Kg·m ²)	527 N (0,1575 Kg·m ²)
	Black sliding sleeve	41 mm	95 N (0,027 Kg·m ²)	190 N (0,056 Kg·m ²)
	Red sliding sleeve	57 mm	49 N (0,014 Kg·m ²)	97 N (0,028 Kg·m ²)
	Grey sliding sleeve	73 mm	26 N (0,008 Kg·m ²)	59 N (0,017 Kg·m ²)
	White sliding sleeve	89 mm	19 N (0,005 Kg·m ²)	39 N (0,011 Kg·m ²)

Accessory for directly pulling the rope, suggested for exercises using the guide to the wall.

Pulley to double resistance, suggested for exercise above the platform

MONITOR YOUR WORKOUT WITH LITE APP



LITE App allows you to check in real-time data of your workout, such as force, power and acceleration.

The data is collected through an encoder available as an option, which can be applied directly on the rotating shaft.

LITE AER

The pneumatic device for high speed movement and



LITE AER is the LITE device that allows you to exercise against a resistance produced by compressed air instead of weights.

Specifically, LITE AER includes a pneumatic piston that thanks to the LITE's patent-pending system allows the device to generate a constant and reactive resistance for nearly 30 meters.

Regardless of the exercise you want to perform, thanks to its design and pneumatic resistance, LITE AER allows for a softer and millimetrically adjustable resistance.

Therefore, LITE AER is particularly effective for both the improvement of athletic gestures such as sprints and changes of direction, or for short movements that require high speed of execution.

EASY AND QUICK SETUP



Adjust the resistance by simply pressing one button.



Change the height of the rope thanks to the quick guide, and easily set the device for any type of exercise. Quickly apply the pulley to double the resistance.

"Move in any direction with a smooth and constant resistance"

PNEUMATIC DEVICE TRAINING ADVANTAGES

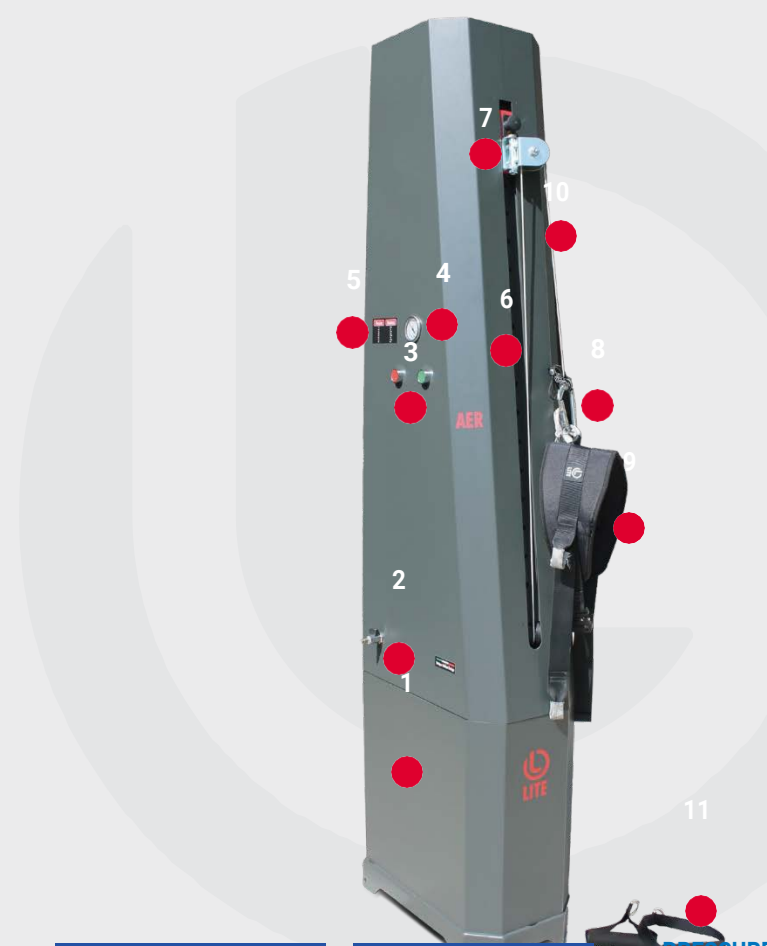
- The air resistance (pneumatic) reduces the inertia during high-speed movements and allows the muscles to stay constantly activated during exercises.
- The resistance remains softer during the entire movement by limiting trauma to the joints.
- The resistance can be adjusted quickly and millimetrically.

LITE AER ADVANTAGES

- The rope can be pulled for up to 28m and the resistance is completely constant and reactive in both direction for all the length of the rope.
- Thanks to the design it can be used for both movements with a short range of motion and sprints or change of direction.
- Easy and quick setup.

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COMPONENTS



- 1 Steel structure treated with gray epoxy paint
- 2 Connector for air compressor
- 3 Buttons for setting resistance
- 4 Mechanical pressure gauge for pressure detection
- 5 Pressure to weight conversion table
- 6 Guide for adjusting the height of the rope
- 7 Pulley that allows moving the rope in all directions
- 8 Accessory attachment system
- 9 One size belt with 400kg maximum loading
- 10 3 mm dynamerope
- 11 Handles with 30 mm grip

FEATURES

VALUES

Machine height	202 cm
Machine weight	80 kg
Maximum base footprint	48 X 37 cm
Minimum rope height	88 cm
Maximum rope height	17,6 cm
Minimum resistance	2,5 kg
Maximum resistance	40 kg
Rope length	28 m

PRESSURE

RESISTANCE with direct attachment to the rope

1 bar	2,5 kg
2 bar	5 kg
3 bar	7,5 kg
4 bar	10 kg
5 bar	12,5 kg
6 bar	15 kg
7 bar	17,5 kg
8 bar	20 kg

RESISTANCE with pulley

5 kg	10 kg
15 kg	20 kg
25 kg	30 kg
35 kg	40 kg

Accessory for direct attachment, the rope can be pulled up to 28m. Ideal for high-speed movements.

Pulley, the rope stretches up to 14m. Ideal for slower strength-based movements.



LITE AER requires the use of an air compressor, with recommended pressure up to 8 bar to reach the maximum resistance of 40 kg (with pulley), but once loaded it can also be used outdoors without using electricity.

For use in professional environments we recommend a silent membrane compressor that avoids noise when loading.



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LITE FLUCTUS

The proprioceptive box with quick oscillation adjustment system



“Improve your balance”

LITE FLUCTUS is the proprioceptive box with a patent-pending design that allows you to perform monopodal exercises with situations of instability induced by horizontal oscillations of the surface.

LITE FLUCTUS is particularly effective for improving the motor control of the lower limbs. LITE FLUCTUS consists of two surfaces connected to each other through special chains that allow oscillation of one over the other.

Thanks to the uniqueness of the LITE mechanism, it is possible to adjust the oscillation of the box millimetrically to customize the difficulty of the training according to the person. Furthermore, the more coordinative complex the movements, the greater the oscillation of the platform.

PROPRIOCEPTIVE TRAINING ADVANTAGES

- Helps reduce center of mass movements during situations requiring monopodal stability.
- It helps to restore altered somatosensory information that negatively affects motor control.

LITE FLUCTUS ADVANTAGES

- The quick and millimetrically adjustable oscillation system, simply by turning the appropriate knob.
- The design that allows complete freedom of movement on each side.
- The portability
- The instability that is independent of the deformation of the surface and requires a rebalancing of the center of mass that is not solely modulable through the ankle joint and strength.



- 1 Steel platform treated with gray epoxy paint and coated with non-slip mat
- 2 Knob to adjust the oscillation
- 3 Transport slot
- 4 Oscillating chains

INDIVIDUALIZE YOUR TRAINING

By turning the knob it is possible to adjust the oscillation of the box in an instant.
By unscrewing the knob, the oscillation gradually decreases and vice versa.

FEATURES	VALUES
Maximum user weight	120 kg
Maximum dimensions	53 x 28 x 38 cm
Platform surface	53 x 38 cm
Platform weight	15 kg

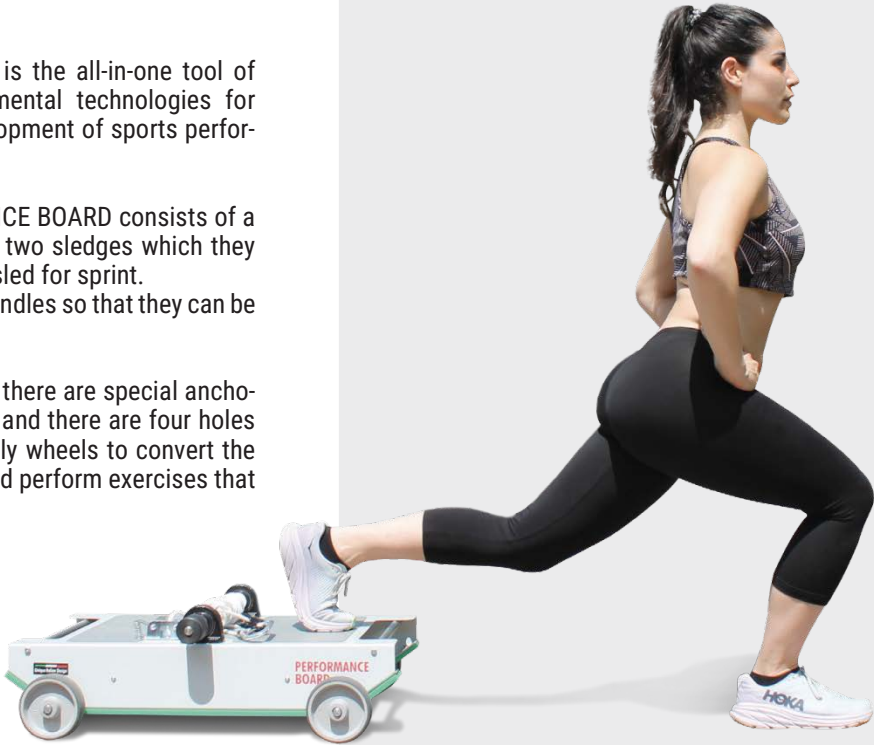
PERFORMANCE BOARD

The all-in-one solution to train wherever and how you want

The PERFORMANCE BOARD is the all-in-one tool of LITE which includes fundamental technologies for functional training and development of sports performance.

Specifically, the PERFORMANCE BOARD consists of a flywheel platform, resting on two sledges which they also allow it to be used as a sled for sprint. The flywheels have special handles so that they can be used as free weights.

Furthermore, on the platform there are special anchoring points for elastic bands; and there are four holes in which it is possible to apply wheels to convert the platform into a slide board and perform exercises that involve sliding movements.



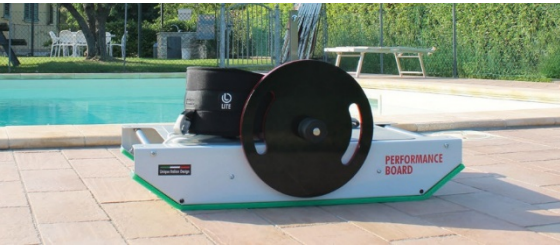
“Exercise with different training technologies at the same time”



PERFORMANCE BOARD ADVANTAGES

- Possibility to train using different technologies
- Easy to store
- Portable
- Quick set-up and that does not require anchoring to walls

USED IT WHEREVER YOU WANT



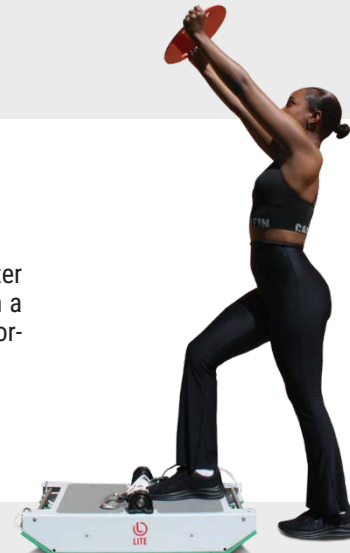
The portability of the PERFORMANCE BOARD makes it ideal for those who love to train outdoors or for those who needs to perform workouts in different environments.

APPLICATIONS



Flywheel training allows you to generate resistance by accelerating and decelerating a flywheel through the pull of a rope. This modern methodology is extremely effective for developing strength during sport-specific movements, in particular when they require eccentric overloads.

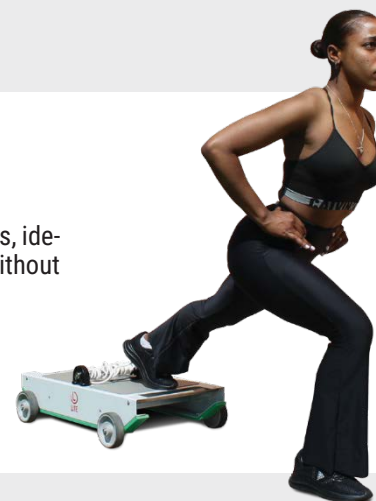
The grips on the flywheels allow you to use the latter also as free weights, so as to being able to perform a full body workout and improve motor control and coordination during complex movements.



The anchor points allow you to fix specific elastic bands on the platform and train both limbs, in particular by performing explosive exercises that enhance the performance of high-speed movements during sports.



The wheels allow you to perform sliding exercises, ideal for strengthening the core and lower body without overloading the joints.



The special sleds allow you to perform exercises to develop power and speed during key athletic gestures that require application of horizontal forces such as sprints and side runs.

COMPONENTS

- 1 Steel platform covered with paint gray epoxy and non-slip mat.
- 2 Plastic sleds.
- 3 Quick couplings for wheels.
- 4 Anchors point for elastic bands.
- 5 Carabiners for sled use.
- 6 Flywheels with handle slots to be used as free weights.
- 7 Rope for sled use.
- 8 Belt for sled sprint and flywheel exercises with maximum capacity of 400 kg.
- 9 Quick-release wheels for conversion to slide board.
- 10 Quick flywheel rope adjustment system.
- 11 Pulley and carabiner to attach accessories for flywheel use.
- 12 Set of elasticbands.
- 13 Exercise handles.
- 14 Locking knob for flywheels.
- 15 Accessory bag.

FEATURES

Max. overall dimensions without disc
Platform height
Exercise surface
Maximum user weight
Harness

VALUES

40,5 x 75,5 x 19 cm
14 cm
55 x 36 cm
120 kg
One size

FLYWHEELS

FREE WEIGHTS

ELASTIC BANDS



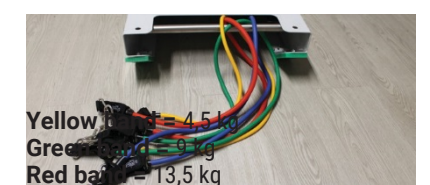
Red flywheels: resistance to $0,5 \text{ m} \cdot \text{s}^{-2}$
= 94N ; equivalent inertia = $0,02925 \text{ Kg} \cdot \text{m}^2$

Black flywheels*: resistance to $0,5 \text{ m} \cdot \text{s}^{-2}$
= 187N ; equivalent inertia = $0,0585 \text{ Kg} \cdot \text{m}^2$



flywheels: 30 cm diameter
thickness 0.5 cm, weight 2

flywheels: 30 cm diameter
thickness 1 cm, weight 5.2 kg



Yellow band = 4,5 kg
Green band = 9 kg
Red band = 13,5 kg
Blue band = 18 kg
Black band = 22,5 kg

WHEELS

SLITTA



Quick connection diameter 12.5 cm



Weight without discs 15 kg

* it is possible to add up to two black flywheels and one red flywheel;

** Under the platform there is a specific pocket in which to insert the flywheels to increase sled resistance.

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LITE

From concept to design

All LITE devices are manufactured following sophisticated production processes, which include, the analysis of physiological training needs, the understanding of the key practical aspects for the use of each device, and a long series of prototypes and tests for the optimal design.

The final product is the result of a constant and intense collaboration between PhDs in sport science and top engineers in the industry, designed to identify the best version of each device, both in terms of effectiveness, versatility and ease of use.



The functional and practical advantages offered by LITE products can enhance the quality of training and provide a unique experience for any user.

Therefore all our products are not only ideal for high-sport performance centres, but represent an added value for any training studio or boutique.



OUR PARTNERS

Research and development are values in which LITE strongly believes. This is why we are extremely proud to partner with research and training institutes. LITE is a start-up accredited by the University of Bologna, winner of the famous business plan competition New Ideas New Businesses.

www.lite-sport.com



Via Provinciale sud, 1349
47826 Verucchio - **Rimini**



+39 **333 366 6361**



info@lite-sport.com

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