Maximize Performance
• Directly increase both skating and sprinting velocity effectively

Precision Training
• Individualize loads and velocities based on athlete profiling

Risk Analysis
• Reduce Injury with high resolution motion data

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Train & Test Simultaneously

The 1080 Sprint is a resistance cable system that improves power, force, and speed with athletes. Coaches and sports medicine staff can train and rehabilitate athletes using the sports motions they need, all while measuring athlete output instantly.

- Resisted Skating, Sprinting, Plyometrics, and Repeat Power Endurance
- High Precision Asymmetry for Sports Medicine Screening
- Multi-Directional Change of Direction Evaluation Measurement

Nearly any sport-specific motion, including on and off-ice activities can be both trained and evaluated with the 1080 sprint system.

Multi-Directional Resistance, Assistance, and Feedback

Ice Hockey training and rehabilitation with the use of the 1080 Sprint is accelerated and more effective through biofeedback. Every repetition data point is displayed live for both the athlete and professional to guide the process.

2016 Information Guide
Speed & Power Training

Coaches love resisted sprint and skating with the 1080 Sprint because the resistance and assistance forces are safe, ultra-smooth, and measured. Every sprint or sporting action is measured and reported realtime for both the coach and athlete. Unlike tubing and weighted vests, the forces are controlled and can be adjusted instantly.

The flexibility of the system is unlimited, and countless workouts can be planned or performed on the fly.

- Acceleration Testing and Profiling
- Repeat Sprint Ability Testing
- Contrast and Assisted Speed
- Fatigue Pattern Identification
- Agility and Change of Direction
- Potentiation or PAP Training

Test and Train the Most Vital Speed Qualities

The 1080 Sprint can load and measure velocity of athlete motion in a variety of common tests. Each test performed displays all of the data instantly, through the use of a hand held tablet for easy viewing. The 1080 Sprint can assess the following speed tests and more:

- **Short Speed** - Test acceleration from 0-50 m in any direction, minimal or heavy loads.
- **Top Speed** - Measure maximal velocity, including the acceleration phase
- **Repeat Speed** - Assess sport stamina with distances up to 90 m
- **Multi-Directional Speed** - Compare all movement patterns in any direction
- **Change of Direction Speed** - Measure the ability to redirect speed in any motion
Injury Prevention & R2P

The 1080 Sprint can perform immediate motion diagnostics on functional speed, force, and power of players in any direction instantly. Both general sports training and hockey specific data is captured in high precision, down to each step. Data can be reported live, real time, for both athlete support staff and athletes.

Intelligent Rehabilitation and R2P

Rehabilitation options that benchmark progress from baseline is another key feature to the 1080 Sprint. Hockey players can be profiled and that data can be used for return to play strategies (R2P) and long term surveillance with repeated testing. Since the data is from actual training protocols, testing is an effective use of time and energy during the competitive season.

Rehabilitation options that benchmark progress from baseline another key feature to the 1080 Sprint. Hockey players can be profiled for the following:

Limb and Pelvis Asymmetry - Analyze on lower limb and trunk functional impairments

Baseline and R2P Comparison - Improve rehabilitation outcomes with objective data

Athlete Management System Ready - Extract and review 1080 sprint information for deeper analysis with .csv export options.
Pathological asymmetry, evaluated from early screening values, can identify risk to hockey athletes after baseline testing. Reporting displays all values of force, speed, and power. Reports are in high resolution for comprehensive athlete trend analysis and tracking.

- **Right/Left Limb Asymmetry**

  Linear speed forward, sideways, and backwards can be assessed and screened in step by step detail, including glide velocity.

- **Multi-Directional Motion Analysis**

  Multi-directional speed and deceleration are instantly visualized with precise data breakdown. Data can be exported and reports sent with just a few taps on the tablet.

**Seamless Integration and Flexibility**

In addition to the powerful reporting features, the 1080 Sprint provides a complete set of accessories that professionals can use to load athletes effectively. The 1080 sprint belts and vests offer an array of possibilities that sports medicine and sports performance professionals can utilize. Loading can be done anywhere on the hip and trunk for incremental resistance in nearly any direction.
The 1080 Sprint boats a composite fiber cord system made in Austria and calibrated in Sweden. The system has the smoothest resistance and assistance in the sports performance market. The torque provided by the 1080 Sprint includes numerous safety functions to develop a worry-free load or assistance. The OMRON servo motor is a gentle pull for rehabilitation and heavy training.

Ultra Smooth Incremental Resistance

2000 RPM OMRON G5 Series Motor

Unlike elastic cords, single speed velocity motors, and other systems, the 1080 Sprint provides a fully modulated assistance and resistance load to any direction. Designed to change torque to match the step by step of skating and sprinting, the firmware automatically adjusts based on user settings.
About the Technology

The 1080 Sprint technology system that uses the same sensors and standards as elite automotive sport and advanced industrial manufacturing. A team of researchers and engineers designed every component to create a comprehensive solution for serious sports training and rehabilitation.

- Proprietary custom firmware
- Wireless tablet connectivity
- Laser cut precision chassis
- Industrial strength durability
- Ultralight carbon fiber components

**1080 Sprint System Specifications**

- Continuous resistance range 10-150N
- Maximum resistance in both directions: < 300N during maximum 10s and < 450N during 3s
- Using a pulley max resistance can be doubled at half maximum speed
- Maximum speed 14 m/s (46 ft/s)
- Length of line 90m (295ft)
- Line type: 130 kg (286 lbs), 1.7 mm (0.067”) diameter
- Motor 1.5kW
- Weight: 29 kg (63 lbs)
- Recorded frequency of force, speed and power: 111 samples per second
- Tablet with touch screen interface or laptop
- Operating system: Windows 7 or 8
- Dimensions (LxWxH): 1004x330x216 mm (39.5x13.0x8.5”)
On and Off-Ice Performance Information Guide