VERT Team System the most effective player management system to help with injury prevention and player performance. Specializing in Women's & Men's Volleyball load managment.

Used by over 500 universities, colleges and professional teams, VERT technology offers player management solutions for individuals and teams.

Jump Feature

- **Jump Count:** The total number of jumps in a session primarily used for injury prevention similar to pitch count in baseball.
- **% of Max:** An athlete's jump consistency and effort
- **Best:** The highest jump the athlete has accomplished during the session.
- **Average High:** The averaged top 25% of all jumps in a session.

Landing Impact Feature

- **Alert Categories:** Feature organizes landing impacts into low, medium and high alerts.
- **Landing Impacts:** Each landing is displayed on the app.
- **Videos:** Subscription-based video content on jump and landing technique to measure improvement (coming soon).

Drills Feature

- **Lateral Launch Test:** This assessment is designed to measure speed, vertical explosiveness, endurance and movement efficiency.
- **Vertical Beep Test:** This assessment is designed to measure your vertical endurance and landing consistency.
- **Standing Vertical Test:** Measure your standing vertical jump height.
- **Approach Vertical Test:** Measure your approach vertical jump height.

Energy Feature

- **Landing Impact:** Know how hard you are landing. Provides each landing and peak acceleration as a g-force measurement (Gs).
- **Kinetic Energy** Energy that your body possesses in motion. Know the total work from your activity and track your efficiency (joules/lb).
- **Movements** Count each dynamic movement (peak acceleraton) you make and the quality of that movement. Get movements per minute including stress % (low & high surge in Gs/sec).

Run Feautre

- **Run impact:** Know the average g-force of each foot strike/impact.
- **Total Energy:** See the total kinetic energy output by split and total run. Know the total work from your activity and track your running efficiency.
- **Speed Graph:** See how fast you ran in MPH graphically
- **Monitor Stress:** per mile splits, monitor stress % per mile and total stress % of run.
- **IOS GPS integration:** Total distance, speed, route and pace.

Power/Intensity Feature

- **Intensity:** Amount of high intensity movements including high intensity %.
- **Movement power:** Average explosiveness per movement.
- **Explosive:** Know how much you are exerting and how explosive in watts/lb.
- **Approach Vertical Test:** Measure your approach vertical jump height.

Jump Rope Feature

- **Jumps:** The total number of jumps in a jump rope session.
- **Jump/Min:** Jumps per minute.
- **Endurance:** Timed jump rope session. Chose between 30 seconds, 1 minute, 2 minutes or endurance mode.

Asymmetry Feature (Coming soon!)

- **Appendage Asymmetry:** Right vs. Left balance; movement load by appendage; intensity asymmetry by appendage.
- **Imbalance %:** Real-time right vs. left imbalance and graphical representation.
- **Real-time symmetry:** Know you body symmetry for peak athletic performance.

Stress Feature

- **Stress %:** Know the percentage of high versus low stress movements during an activity.
- **Efficiency:** SManage your movement efficiency by monitoring stress %.
- **Prevent injuries** Know the low and high intensity of each movement and the amount of stress you are putting on your body or appendage.

Differences in vertical testing

VERT®: Is a discrete wearable device that measures vertical displacement from center of mass of an athlete. Just clip and jump for quick combine and try-out testing without any calibration between subjects. VERT is an inertial measurement unit (IMU) with a very high precision 3X gyroscope, 3X accelerometer and 3X magnetometer. VERT's proprietary algorithm measures initial velocity and landing impact with over 53 simultaneous calculations to measure vertical displacement center of mass to within 96% accuracy. Besides accuracy and cost, the biggest benefit of the VERT device is the ability to collect data in real-time for performance and injury prevention analysis.

Vertec: The vertec slap stick test is an excellent coordination and timing test but not a true measure of vertical performance. True vertical performance is a measurement of vertical displacement from center of mass of an athlete. A major disadvantage of vertec equipment is that they are cumbersome and bulky. Vertec tests have been known to vary as much as 3" – 6" per person. Majority of errors begin with an inaccurate standing one hand touch at the beginning of the test (some athletes are trained "not to touch as high" on original measurement in order to gain a couple

of inches when they contort their body during the apex of their real jump). Other variances occur when an athlete touches the slap stick on the way up or on the way down from the apex of their jump. In order to have the perfect and accurate slap stick vertical test result, the athlete must be measured correctly followed by a perfect jump and slap stick contact. During the jump the athlete must contort their body to reach a perfect arm/hand extension with perfect finger tip contact at the apex of all these movements.

Force Plate: Force platforms or force plates are measuring instruments that measure the ground reaction forces generated by a body standing on or moving across them. Vertical jump calculations using force plates focus on air time between contact of the jump. Even though force plates typically are limited to a fixed position for measurements, they have been recently replaced by VERT as a gold standard in vertical jump measurements due to accuracy. A good comparison between a force plate and a VERT device is bouncing a 5kg bowling ball (force plate) on a trampoline vs. a 5kg water balloon (VERT device) on a trampoline. The water balloon is more like the human body in regards to movement of launch & landing (i.e. the VERT device algorithm). What a force plate does not take into equation are all the variables in a vertical jump of the human body (and body parts). One example is when the foot is leaving the force plate (or the toes) and the force plate calculations decide to count that moment as the actual launch; the same is for when the person lands on the force plate and when the toes or complete foot land on the force plate. These seemlessly minor differences (and many other characteristics of a human jump) can cause the variances between 1"-4" on every jump.

Video System: 3D Motion capture (Mo-cap for short) is the process of recording the movement of objects or athletes. This is one of the most accurate ways of measuring human movement by the biomechanics industry. The biggest issue with 3D motion tracking are the near-prohibitive cost for most facilities: such systems cost $75,000 to $200,000 and can be used by individual trainers for as much as $3,000 per hour. Validation studies dating back to 2014 have compared VERT devices with a 3D mo-cap systems (Kintrak) with outstanding results. The VERT jump device was the most accurate when compared to a Kintrak 3D motion analyzer with a mean error of -.945 inches (less than 1") and in some cases more accurate then a 3D motion system.

What's in the box

(1) VERT unit (model #ROM),

(1) VERT charger with USB connection,

(1) VERT belt for practice & game use.

Download VERT app for FREE on iTune

Technical Specs

- **Wireless: Bluetooth 4.0 Low Energy (BLE)**
- **Range: 100-150 feet line-of-sight**
- **Book bag mode: A data storage feature that collects data and syncs instantly when your unit re-connects to your phone or tablet.**
- **Display: No display; all displays are wirelessly visual on VERT app.**
- **Warranty: 6 months limited warranty.**
- **Battery Life: 3-6 hours depending on activity. Lithium ion rechargeable battery.**
- **Temperature Range: Operation or charging: 32 F to 122 F (0 C to +50 C); Storage: 32 F to 131 F (0 C to +55 C)**
- **Sensors: 3-axis accelerometer, 3-axis gyroscope and 3-axis magnetometer.**
- **Includes complete historical data sessions for analysis and performance review. Additional measurement features include Kinetic energy feature (in joules/lb.): peak accelerations (Gs), average peak accelerations (Gs), stress % (low & high surge in Gs/sec), movements per minute and movement count. RUN feature: Average g-force per impact, total energy exerted, total stress of run, stress per mile splits, monitor stress % per mile. Power/Intensity feature: Amount of high intensity movements, high intensity %, average explosiveness per movement; know how much you are exerting and how explosive in watts/lb. Stress % feature: Number of high and low intensity movements, real-time change in velocity; (know the low and high intensity of stress you are putting on your body or appendage). Asymmetry feature: (requires 2 VERT devices) Asymmetry measurement, movement load by appendage, intensity asymmetry by appendage, imbalance %, body symmetry for peak athletic performance, real-time data on movement asymmetry for injury prevention.**