Volt Athletics Strength and Conditioning Training App


Reviewed by Brian Gearity, director of the online Master of Arts in Sport Coaching program at the University of Denver.

Imagine you’re an athlete who needs a strength and conditioning (S&C) program to help you achieve peak performance. Or, imagine you’re a high school or club coach working 60+ hours per week, overloaded with too many responsibilities including providing each young athlete on your team with the best S&C program possible. What resources are available to help an athlete or coach determine, design, and implement the best program possible?

These are the sort of questions Seattle, Washington (USA)-based sport technology company, Volt Athletics, grapples with in its pursuit of S&C excellence. Since 2011, Volt’s mission has been to make quality S&C accessible to all athletes worldwide, and hails itself as the “world’s first intelligent training app for athletes.” In their attempt to provide professionally-built training programs, Volt uses a proprietary technology that analyzes simple inputs (e.g., age, gender, season, training experience) from an athlete to build their S&C training program. Volt’s training algorithms use exercise science logic to adapt and grow with each athlete, prescribing unique, sport-specific workouts as part of a long-term approach to physical development.

Put simply, what all this means is that Volt designs and delivers S&C programs via an app and mobile-friendly website. The app, available exclusively in English, is free to download on iOS and Android operating systems in several countries including Australia, Canada, USA, and New Zealand. Customers can try Volt free for 30 days or purchase a monthly subscription for $29.00 (USD) with a credit card. On their website, Volt also sells some Volt branded clothing and workout accessories (e.g., Volt shirts and stickers, workout cards, clips to hold cards). Their targeted audience appears to be youth, high school, and collegiate athletes and sport coaches. They also provide solutions for S&C coaches looking to design and deliver Volt programs or the coaches’ programs to their athletes. The app permits users to change between the metric system (kg) or imperial (lbs) system.

Individual athletes can purchase a subscription with Volt, or coaches can get the training for their teams. With the team training, coaches are assigned a dedicated Volt Support Specialist to help guide them through their team’s training. Volt creates and provides coaches with a custom platform within 72-hours. Once the team’s training is setup, the coach can edit the team’s 12-month calendar by, for example, inserting recovery weeks or off weeks on a weekly case by case basis, and the training calendar automatically adjusts to continue to deliver an appropriate training load. Coaches can substitute movements based on equipment, an athlete’s injury, or personal preferences. The platform includes team management tools for coaches including roster management, preview or print workouts, track athlete progress, player accountability, and making adjustments to training programs. Available on an annual subscription, the cost of a team package is based on the size of the team, but is about 80% off from what the price would be if each individual purchases his/her own account. Each athlete on the team package receives the Volt training program, app, and a user account.

An individual account with Volt can be created online or in the app by entering in an email address, some physical characteristics such as height and weight, date of birth, and desired specific sport for the program. Additionally, in order for Volt users to customize workouts including prescribed load for each movement athletes are encouraged to input their one repetition maximum (1RM) for what Volt calls its three base lifts (i.e., bench, squat, and hang clean). If an athlete does not know their 1RM or is new to lifting, Volt will prescribe training blocks that build skills with a variety of common sport movements. This introductory phase helps athletes progress technically and physically before introducing key structural lifts like the bench press, back squat, and hang clean. If no physical characteristics are entered, the app delivers only the reps and sets without the prescribed recommended load. If a user makes a mistake entering in the recommended information, he or she can go back and change the info during the registration process or while using the app. Periodically throughout the year, Volt suggests to “recalibrate” the user’s three base lifts (i.e., bench, squat, hang clean) 1RM loads, which are then used to determine how much weight to lift for individual lifts.

Brian Gearity is the director of the online Master of Arts in Sport Coaching program at the University of Denver. His research and teaching interests focus on coach education, learning, and thinking, using psychological and sociological ways of knowing. He is a Certified Strength and Conditioning Specialist and Editor-in-Chief of the National Strength and Conditioning Association’s journal for practitioners NSCA Coach.
Each prescribed movement includes technique demonstrations and coaching cues to help athletes perform the movements properly. Additionally, Volt provides dynamic warm-ups, targeted injury prevention routines, and detailed metrics to track each athlete’s progress. Coaches and athletes can choose from over 40 sport and gender specific training plans, including alpine skiing, baseball, basketball, combat sports, crew, cricket, cross country, cycling, diving, field hockey, American football, golf, half marathon, ice hockey, lacrosse, marathon, obstacle course racing, rugby, running, soccer, softball, squash, swimming, tennis, track and field, triathlon, ultimate, volleyball, water polo, wrestling, and all-around athlete. The entire S&C program, including exercises, repetitions, and load, changes based on which sport is selected.

Prior to each workout, users are asked to fill out a readiness questionnaire (i.e., a 5 question 1-5 Likert scale) that asks about the athlete’s perceived mood, soreness, sleep, energy, and stress. Responses to the questionnaire do not change the prescribed workout automatically, but the coach or athlete could use the readiness information to modify the workout. If a coach purchased the app for the team, the coach does have access to the readiness questionnaire information. Volt Athletics reported to me that they may try to use the readiness information for research on injuries or performance, or permit the coach to access this information, but currently these are just plans. A coach could still, on their own, discuss how the readiness items affect quality of training and performance.

There are many options to adjust the S&C program in the app with one option being to change the prescribed movement. For example, I suspect the dumbbell power clean is one of the default exercises in the app because it’s an easier, less technical option than bar power clean. So, if a coach wants to have, for example, the upperclassman (i.e., juniors and seniors) perform the power clean with the bar, and the underclassman (i.e., freshmen and sophomores) perform the power clean with dumbbells, this is an easy change that can be made by the coach. The user can change exercises on a daily, monthly, or annual basis. The app also features the option to select beginner through intermediate workouts. The effect is that workouts change from three to four days per week and increase in training volume and exercise complexity.

There are technique demonstrations and coaching cues to help athletes perform each prescribed movement properly. Next to each repetition, set, and load scheme is a picture of a lifter demonstrating the prescribed exercise. Click the picture and the demonstrator moves to show how to do the lift. There is no audio with the demonstration or narrator explaining the movement. The demonstration is two-dimensional, small in size, and breaks down movements into about two large phases. So, it likely serves best as a general reminder of the movement, not detailed instruction.

The app records the load lifted for each resistance training exercise and users can monitor their change over time. The coach can also track the load used by each athlete, and athletes can enable, or disable, the team leaderboard option to view how their teammates are performing. The leaderboard option is only available in the team package. The app also has an “accountability” feature where users can track how many workouts they’ve completed in the last 30, 60, and 90 days and all-time. The app also features a “Volt Help” option. Sections in this feature include: getting started, about Volt, user profile, account, and program information, workout add-ons, lifting technique resources, Volt’s philosophy of training, and the use and purpose of testing the three base lifts. Within each help section is an explanation of central features of the app. For example, the help feature items under program information explains how to swap exercises, modify monthly plans, or add a period of general physical preparation. Another example is a brief description on the science and practice of warm-ups and why a user would want to warm-up prior to resistance training. These sort of brief, but informative, reviews are likely beneficial to the curious user wanting to understand the rationale behind the S&C program. While users familiar to S&C should have no problem understanding the terminology used in the app, newcomers to the field will likely benefit from the clear explanations.

In addition to seeing the day’s workout (i.e., a microcycle), users can view a general description of the entire annual plan (i.e., a macrocycle). Users are limited to looking at only a three week detailed plan. That is, access is restricted to the current week and the most immediate upcoming two weeks. The annual plan appears to follow what is referred to as a traditional undulating periodization plan. In this plan training volume is comprised of high repetitions 8-15 with a relatively light load 50-65% of 1RM. Over time, the load is increased and the number of repetitions is decreased.

The focus of the app is resistance training microcycles. However, the options for choosing a warm-up, speed, agility, plyometrics, conditioning, and other primers and finishers as Volt calls them, is more general, especially compared to the detailed resistance training prescription. These options range from abdominal and low back training to anterior cruciate ligament injury prevention to rotator cuff strengthening. They’re general because selecting one of these options opens up a document with a list of exercises to perform and a prescribed volume, but without the ability to customize or track them in the app.

Volt’s staff is organized around a strength coach board of advisors and four “teams”: sport performance, coach relations, business development, and engineering. The sport performance team researches, designs, and develops training programs and content development for schools, clubs, and organizations. The sport performance team is led by Volt Co-Founder, Dan Giuliani, MSAL, CSCS, RSCC, who has experience as a S&C and football coach and teaching a graduate level S&C course. Volt boasts several staffers who possess the National Strength and Conditioning Association’s Certified Strength and Conditioning Specialist certification. Volt is also a sponsor of the NSCA’s Registered Strength and Conditioning Coach Program, which is a NSCA registry of coaches.