

Velmie

**Connected
Gym Equipment
Market
Forecast**

Aug 30, 2018

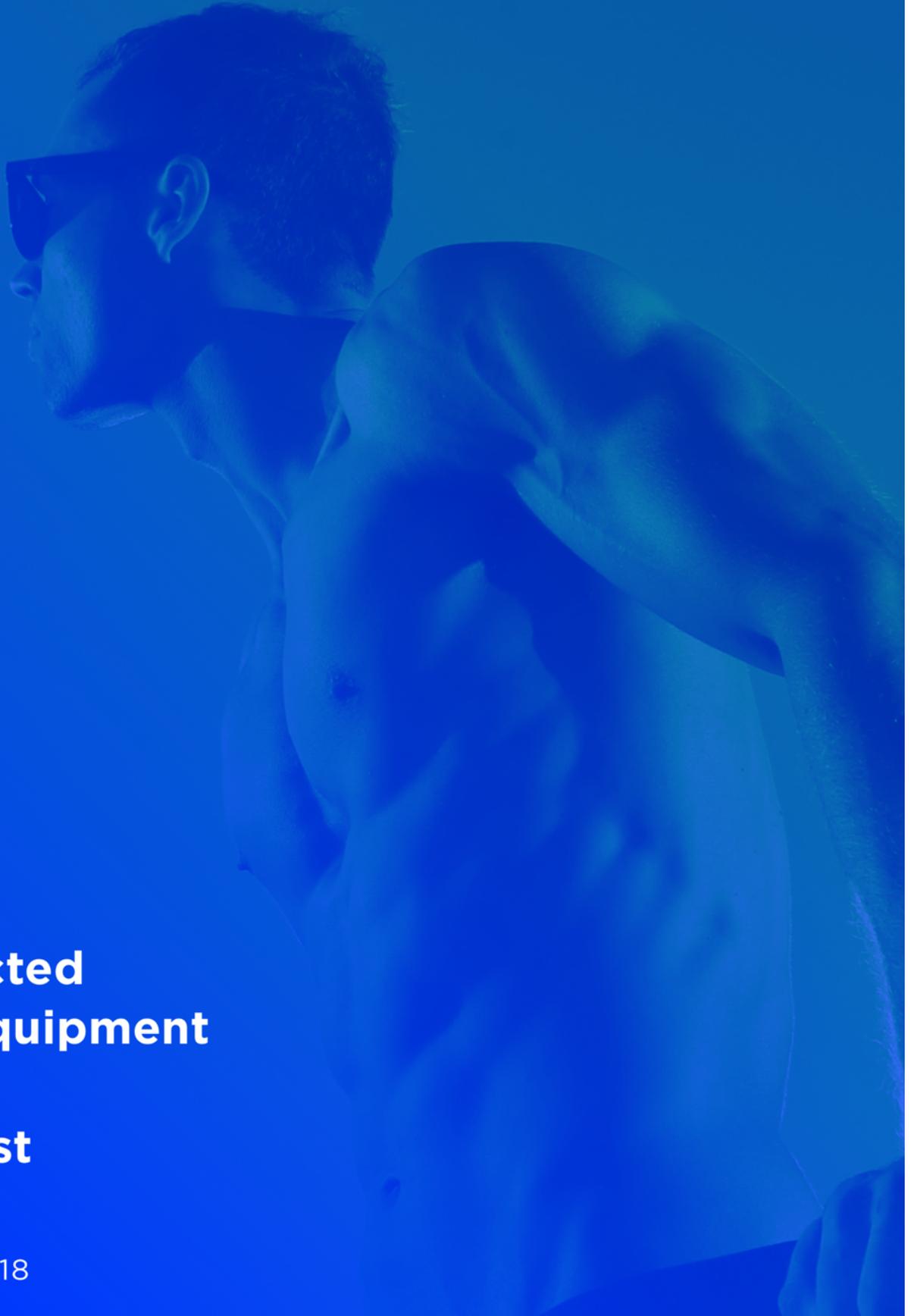


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Introduction

Today more and more people consider health to be one of the main values of the life. According to [Statista](#) approximately 20 million people all over the world are actively exercising in some form. According to the the Physical Activity Council (PAC), in 2016, fitness, firearms, and outdoors games are the most popular among Americans. Thanks to modern technology, exercising has become much easier and more comfortable. Now you can create your own diet and exercise plan, as well as track your records with the help of numerous apps. For example, such apps as [MyFitnessPal](#), [Fitocracy](#) and [Weight Watchers](#) aim at helping you track your diet and fitness goals.

Rise in fitness consciousness and increase in level of health awareness, technology development (mHealth, wearables, sensors, connected gym equipment, etc.) is expected to significantly drive the connected gym equipment market. Improved lifestyle, coupled with rise in disposable income of individuals accelerates the market growth. According to **International Health, Racquet, and Sportsclub Association** (IHRSA), in 2016, the number of fitness club memberships in the U.S. increased to 57.3 million, from 55.3 million in 2015. Facing a high competition gyms try to provide their clients with the newest equipment to gain more clients and popularity. However, high cost of connected gym equipment and its implementation

majorly restricts the market. The prices are absolutely surprising. Some of the smart machines prices can be 7-8 times higher than the ordinary machines prices (compare the cost of TechnoGym and the cost of an average treadmill). Growth in fitness industry in Asia-Pacific is expected to open new avenues for the market players. Japan is the major shareholder in the Asia-Pacific, Connected Gym Equipment industry, and accounted for around 33% share in 2016. Hopefully, the development and emergence of new technologies will reduce the cost of the equipment and will lead the gym equipment market to the prosperity.

*Our company was one of the pioneers on the smart gym equipment market, providing **consulting, engineering and development services** to entrepreneurs that are either looking to enter the market with a new product or to upgrade the existing product line with smart connected equipment powered by Artificial Intelligence and Machine Learning technologies.*

Velmie is a global engineering and consulting firm doing IoT and AI projects for many industries including Health and Fitness. Smart gyms and devices developed by us are operating on 4 continents and handle thousands of users per day.

One of the most extensive solutions we delivered can be found at Pendex gyms (pendex.com), this is one of the first projects on the

market that is using AI for medical rehabilitation while providing fully autonomous training machines with no doctor or a personal trainer required. There are rehabilitation methods of famous Dr. Blum implemented into the AI algorithms and adjusted by AI for each of the individuals according to numerous parameters that are being tracked instantly. You can read more about the project by visiting the web page <https://www.velmie.com/smart-gym-equipment>

Get in touch with us today to discuss your ideas and how we can help to implement them! Drop us a line at hello@velmie.com

Current products

Connected gym equipment is gym equipment that is connected to an app that records your workouts and displays the data about workouts. Connected gym equipment links to the Internet and taps the cloud-based data, such as workout goals, health history, and nutritional habits to create personalized exercise plans and track how you're doing in the gym. Such technology makes the process of doing sports more interesting and entertaining, lets a user have access to their data in one place and track their records looking at the past experience. This can be achieved by implementing technologies such as IoT and AI, which create the ability to connect the machines with a smartphone or a wearable.

Today's gym equipment market is represented by such machines as treadmills, dumbbells, benches, strength machines, elliptical and stationary bikes. Treadmills, elliptical and stationary bikes are the most popular among users and let them take up sports without too much efforts and challenges. Now let's have a quick look at how they are modified.

Today's market of treadmills impresses with its growth and variety. The machines are incorporated with features such as television screens, CSAFE connectivity, iPod compatibility, sound systems, Bluetooth connectivity, and others.

Regarding elliptical, the most popular modifications are improved resistance in flywheel, color enabled display, and multi position intensity ramps. Such technologies allow the users to seamlessly interface with the equipment via apps or Bluetooth for smooth operations of the device.

Exercise bikes are gaining popularity in the connected gym equipment market owing to increased popularity of spinning exercises. There are machines that are connected with a smartphone and transfer the information from it, track, record, and make a plan of workouts depending on the difficulty and intensity of a workout.

So, here you've learned what technologies are used in gym equipment modifications, now let's have a look at the live startups with their amazing products.

New startups & technical solutions

Facing the rapid development of the connected gym equipment market there appear many amazing startups that strive to attract as many clients and followers as possible. Such technologies as AI (Artificial Intelligence) and IoT (Internet of Things) are actively used in the field of gym equipment. Here are several examples of them.

The first one is **Peloton**. It is a private indoor cycling studio in your home. The Peloton allows you to have access cycling experience and a 24-hour access to the daily live classes from their NYC studio directly into home. A user can find a perfect fit for them depending on the length, type and difficulty of the ride. Also there are the options of cardio, strength, and cardio workouts. How about the smart technologies? With the Peloton a user can monitor their metrics including cadence, resistance, output, and heart rate directly on your screen. The bike keeps a detailed record so a user can get back to their previous experience after some time.

Another fun startup is **Skillrun**. This machine can be extremely helpful for the professional sportsmen but of course it meets the needs of sport amateurs. This innovative technology detects your parameters and sets the machine according to them allowing you to choose the difficulty and intensity of the workouts. Skillrun

combines cardio and strength training in a single equipment allowing to perform running sessions and resistance workouts. It allows you to raise your endurance efficiency with Biofeedback (Patent Pending). The exclusive interactive technology by Technogym tracks and monitors your main running parameters in real time, providing colour-coded feedback that enables you to improve your performance. Skillrun can be connected to your Apple Watch. You can login with the mywellness app and recall all your programmes and settings at once.

Bowflex is going to blow up the market with its stunning solution. These dumbbells have integrated Bluetooth to connect to your iOS or Android smartphone. There, the data they collect about the exercise is sent to the “3D Trainer” app, where you can log reps and sets, watch video tutorials, and find specific workouts for each muscle group you want to train. The weights also make use of Bowflex’s SelectTech system, where a user picks the weight they want via an LCD screen on each dumbbell, then that weight is automatically locked into place when they pick it up. Each dumbbell can be configured to weigh between 10 and 60 pounds.

We can’t imagine our lives without wearables and they have different modifications as well which allows them to provide better service and be more useful. Here’s smartwatch **Wahoo**. Many smartwatches and fitness trackers feature heart rate

sensors. Some of them have been found to be genuinely life-saving. The equipment worn on the chest gives the freedom to exercise without carrying a smartphone or wearing a watch, and is cheaper than smartwatches, and is generally considered to be more accurate. The Wahoo Tickr X is the official heart rate monitor of the Tour de France-winning Team Sky. The device can be set to send live data to your smartphone, or save it and transfer once you get home, so you don't need to carry your phone on every workout. Data can be synced with more than 50 exercise apps, including Nike+ Running, MapMyFitness, Runkeeper, Strava and Apple Health. As well as heart rate, it measures calories burned, running data and reps completed.

Pendex (pendex.com) is the startup built by our team and we are proudly listing it among the most innovative tech solutions in the health & beauty industry. Pendex is a smart set of revolutionary training machines powered by IoT, Machine Learning and Blockchain technologies. Each Pendex machine has sensors installed in it to trace and record each motion and guide users through exercises to reach health targets. A machine senses and monitors every person's motion every minute. The recorded information is displayed as a feedback on the monitor inspiring users to achieve their fitness goals. With the help of integrated IoT technology powered by AI every user tracks their own training progress and receives instant visual on-screen feedback, keeping all the information in the cloud, on whether they're

performing a particular exercise correctly or not. Pendex strives to replace the trainer's presence on maximum providing a better guidance and control.

Got interested? Get in touch with us to discuss the opportunity of building your own smart fitness equipment. Send us a message at hello@velmie.com

Known issues

Despite the fact that connected gym equipment is very in demand and is pretty developed but still there is always space for improvement. Such issues as constant development and growth, customers' high demands to the quality of the equipment, and sharing of the health data should be solved.

No longer is a user at home or at a health club, people spend significant amounts of time on treadmills, exercise bikes, and cross trainers to reach their health and fitness goals. They want to spend this time with pleasure and enjoy their workouts. During workouts, the equipment's console plays an important role because it tracks progress, displays vitals, and entertains. But in an always-connected world, this is no longer enough. Consumers expect a more integrated partner that enables them to watch films and videos during a workout, answer phone calls/text messages, sync biometric data, post results on social media, and compete with others. The console should seamlessly connect their mobile devices and allow users to multi-task by performing multiple functions at the same time. Although people are still interested in the professional advice and accountability and are not ready to leave them. They think smart machines won't replace professional trainers but they will result in less injuries and in the more entertaining training process.

Consumer expectations around fitness consoles are shaped by the rich experiences delivered by the latest tablets and smartphones. According to [Statista](#), more than 52% of phone users gather information about their health using phone applications. In fact, 76% of club members bring a mobile device with them to the gym. For fitness console manufacturers, quickly delivering the capability of the equipment and apps connectivity in a cost-effective solution presents a major challenge. The console needs a high-quality touch screen, TV tuner, and associated drivers to deliver high-definition (HD) video, as well as connect wirelessly to Bluetooth devices. Consumers want to have an access to the Internet for social media, entertainment content, or training programs. They would also like consoles to seamlessly communicate with their wearable fitness devices, like heart rate monitors or GPS devices. Many of these devices require Android support to run their applications.

Using of the health data

The data gathered through smart sports equipment is a precious resource for athletes and trainers, and can also be used by companies to track consumer behavior. These databases will be interesting for the manufacturers of sport and food products, equipment, as well as fitness centers and similar organizations. In other words, shared health data connect people who take up sports with the sport product manufacturers, meanwhile encouraging people to keep fit.

Data are essential for measuring athletic performance, and smart technology allows users to capture and track their performance data. The equipment and devices collect and transmit information to smartphone apps or cloud systems that can analyze it and provide diagnostics. Smart gym equipment can be integrated with coaching software, for example, to create virtual coaching programs and personalized workout schedules.

Companies can gain intelligence on consumers through the individual fitness data collected by smart sports equipment, and that information can be used to direct marketing to customers. Such data often give information about the user's health status, and companies that own the information could share it with third-party firms (gym products manufacturers, fitness centers, insurance companies, healthcare, etc.)

Apps for sharing health data are likely to be very successful since they tend to attract lots of users who are interested in self-improvement through fitness. Regardless of the challenges of implementation and app integration, fully integrated IoT apps are the way of the future. But what is more inspiring is that healthcare industry's access to such data will help improve the quality of life for society and open new horizons in this field.

Blockchain technology usage

One of the mainstream technologies used for smart machines modifications is blockchain which makes the whole process credible and easy to use.

First of all, let's reveal what is blockchain technology and why is it so popular in healthcare industry. Blockchain is an encoded digital ledger that is stored on multiple computers in a public or private network. The working mechanism of this technology is hidden in its name. Blockchain comprises data records, or "blocks". Once these blocks are collected in a chain, they cannot be changed or deleted by a single user; instead, they are verified and managed using automation and shared governance protocols. A high level of safety and flexibility provides a lot of opportunities in the healthcare industry. First of all, it can be used to store personal data of patients and to provide clients with the global access to the information. As a result, a client can always be sure that their information is protected and can't be changed by anyone. Additionally, they have 24/7 access to it.

There is already an example on the market when blockchain has proved its reasonability and gained a lot of success. It's a Lithuanian startup Lympo. It is an ecosystem of a healthy lifestyle that uses blockchain technology to connect multiple stakeholders. It rewards users for providing personal data about

a person's physical health. These databases will be interesting for the manufacturers of sport and food products, equipment, as well as fitness centers and similar organizations. In other words, this app connects people who take up sports with the sport product manufacturers, meanwhile encouraging people to keep fit.

The platform has highly advanced data collection capabilities, but it also encourages the user to lead a healthy lifestyle, using a unique incentive system and recognition of achievements. As a result, the user receives an improvement in the quality of life and overall physical health.

These kinds of apps are likely to be very successful since they tend to attract lots of users who are interested in self-improvement through fitness. Regardless of the challenges of implementation and app integration, blockchain based apps are the way of the future. Despite the fact that blockchain is usually associated with such words as cryptocurrencies, ICOs, data storage, the horizons of its usage are constantly widening and surprising its users. But what is more inspiring is that blockchain usage in healthcare industry and the access to data stored with its help will improve the quality of life for society and open new opportunities in the field.

Market size and forecast

While the market for sports goods equipment is expected to grow at a compound annual growth rate (CAGR) of 3% from 2016 to 2020 globally, smart sports segments are likely to grow much faster. For example, the market for platforms that integrate sports equipment with coaching software is expected to grow at a CAGR of 51% globally from 2014 to 2021.

Smart sports equipment is expected to account for around 7.5% of the total sports equipment market by 2020, up from an estimated 2.9% in 2015.

The geographical analysis of the global connected gym equipment market covers North America, Europe, Asia-Pacific, and LAMEA. Various countries covered under each region are studied and analyzed to identify the major trends demonstrated by these respective regions. North America dominated the market in 2016, followed by Europe. North America extensively uses connected gym equipment across residential, and commercial areas. According to the research, the U.S. and Canada collectively have the largest number of fitness clubs across the world (in the range of 35,000–38,000), thereby supplementing the North American connected gym equipment market. Cardiovascular training is the most preferred equipment in both the countries in addition to other countries. Global Connected

Gym Equipment Market is expected to reach \$1,048 million by 2023, registering a CAGR of 31.1% during the forecast period.

North America is the largest market for fitness equipment across the world. Rise in obesity rates, increase in health consciousness, and awareness of benefits provided by these smart devices would lead to larger number of new fitness facilities to set up and increasing membership rates.

To sum it up, it should be noted that connected gym equipment market is facing rapid development and growth and the main reason for it is people's interest to their physical health and activity. Thanks to the emerging market of health startups such dreams as watching TV while training, texting your friends and family working out, full access to the gathered data can come true or may be has already come. Therefore today there are all the conditions for taking up sports and keeping your body healthy and young, the only thing is the willing to do sports.

Conclusion

Facing the growing people's awareness of the health value, appearing of modern high-technology gym equipment the fitness market is definitely on the pick of its development and progress.

The raise in technology provides the industry with such useful solutions as wearables, sensors, connected gym equipment powered by IoT, AI, and blockchain, which definitely attracts more people interested in their life quality. All these devices make the process of training more interesting providing better guidance and control and giving the feedback for faster goals achieving. The connected gym equipment market already presents such fun startups as Peloton, Skillrun, Bowflex, etc. They have got many thankful users all over the world who enjoy every work out and appreciate the fact that IT technologies are used in such an important industry as fitness and healthcare and really improve the quality of life.

Regardless existing challenges in the implementation and spreading of the solutions (such as rapid development and growth of the field technologies, customers' high demands to the quality of the equipment, and restrictions in sharing of the health data) the connected gym equipment market is growing at a quick pace presenting new exciting startups and fitness solutions disrupting an ordinary image of doing sports.

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Facing the growing people's awareness of the health value, appearing of modern high-technology gym equipment the fitness market is definitely on the pick of its development and progress. The raise in technology provides the industry with such useful solutions as wearables, sensors, connected gym equipment powered by IoT, AI, and Blockchain, which definitely attracts more people interested in their life quality. All these devices make the process of training more interesting providing better guidance and control and giving the feedback for faster goals achieving. The connected gym equipment market already presents such fun startups as Peloton, Skillrun, Bowflex, etc. They have got many thankful users all over the world who enjoy every workout and appreciate the fact that IT technologies are used in such an important industry as fitness and healthcare and really improve the quality of life. Regardless existing challenges in the implementation and spreading of the solutions (such as rapid development and growth of the field technologies, customers' high demands to the quality of the equipment, and restrictions in sharing of the health data) the connected gym equipment market is growing at a quick pace presenting new exciting startups and fitness solutions disrupting an ordinary image of doing sports. Connected gym equipment solutions are a great example of how technologies can be helpful in our daily life making it easier and

more comfortable. Looking at the happy faces of the customers who have achieved great results on the way to a happy and healthy life training on the smart gym equipment it makes the value of technologies and their use twice more important.

So if you have any ideas that you have always wanted to bring into reality to make this world a bit better and more enjoyable feel free to contact us and we will be happy to become your partners supporting you on the whole way. Velmie has expertise in the industry of connected gym equipment and has already got references from the happy clients. So let us know about any your thoughts and we will become your friends giving you the right directions and good advice to encourage your business.

Get in touch with us today to discuss your ideas and how we can help to implement them! Drop us a line at hello@velmie.com

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