

SIMON™



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Overview

Simon™ is a cutting edge health device that helps reduce the risk of life threatening events associated with cardiovascular disease. Simon™ provides timely advice to an individual based on innovative monitoring of one's vital signs and activity. Simon™, a small, safe band worn around one's wrist, records and transfers an individual's vital signs to a personalized account in real time. Based on one's current status, alerts will be sent to the individual promoting a healthier lifestyle, such as when to eat, relax or exercise. Customers or physicians can look online to view vital signs and activity which provide valuable insight into trends or patterns of one's health. Simon™'s ability to detect medical emergencies and notify response teams makes this device crucial for any individual who is at a high risk for a heart attack or stroke.

Why Do We Need Simon™?

The American Heart Association estimates that one in three American adults has one or more types of cardiovascular disease, including 73 million who suffer from high blood pressure, 16 million suffering from coronary heart disease, and 8.1 million experiencing a heart attack. Cardiovascular disease is the #1 cause of death in the United States and most European countries, killing more people per year than cancer. These statistics make it clear that cardiovascular disease remains, by far, our greatest public health challenge.

Currently, several medications are being prescribed to help reduce the incidence of cardiovascular disease related life threatening events. Medications are geared towards lowering lipid and cholesterol levels, and decreasing blood pressure and heart rate. Another way of battling heart disease is through physician recommended interventions including stress reduction, nutrition, and exercise programs. Studies have shown that physical inactivity can increase the relative risk of coronary heart disease by 1.5 – 2.4 times. Furthermore, moderate-intensity physical activity, such as walking, can lead to a considerable reduction of the risk of death due to coronary heart and cardiovascular disease.

However, most of these interventions are merely suggested by a physician--individuals are on their own to ensure compliance. Unfortunately, these prescribed lifestyle changes are not always easy to implement. Tasks need to be modified to fit one's specific lifestyle and health needs. That's where Simon™ comes in. Simon™ uses innovative two way communication that prescribes specific intervention instructions based on one's personal and to the minute vital signs. As opposed to merely being told by a doctor to get more exercise, or increase your heart rate for 20 minutes a day, Simon™ keeps track of exactly how much you are moving and what your pulse rate is so that it can customize specific interventions tailor-made for you. For instance, Simon™ can alert you to high stress situations and can prompt you to calm down. Furthermore, physicians can use the data to manage their patient's medication.

While there are currently devices pending release that claim to monitor one's activity and vital signs, these competitors do not have Simon™'s unique ability to provide active feedback. Simon™ is also more cost efficient in implementation by integrating numerous sensors into one

application. Competitors such as the soon to be released “SMHeart Link” rely on sensor accessories to acquire accurate readings.

How Simon™ Works

Simon™ handles both ultra low-power consumption calculation and 128-bit encrypted ZigBee wireless network communication. The sensors, located in the wrist band, interactively measure your heart rate, temperature and level of activity and forward the data to your smart phone or computer. The Simon™ software instantly analyzes your real time health status and gives customized suggestions according to your desired lifestyle, such as “take your medication” or “take a walk”. A monochrome or colored screen on the band allows you to read the details of the prompt and your current health status. In addition, a gentle to intense vibration will inform you of the degree of urgency of the current prompt, which is especially useful for alerts such as abnormal heart activities. Powered by energy-harvesting solar cells, Simon™ is a fashionable band that one will want to wear all the time.

Simon™ software application, which runs on cell phones and/or computers, collects data from Simon™’s onboard memory and forwards it to the secure data server. Simon™ online service gives family members and doctors the ability to monitor the health of their loved ones. For example, Mom can monitor Dad’s health simply by logging into the families’ Simon™ account. Users can customize and send alerts to specific members of the user’s family based on their health conditions. If one has a medical emergency, such as cardiac arrest, an alert will immediately be sent to emergency services. Simon™ can also sync up with the user’s calendar (such as Outlook or Google Calendar) and integrate health suggestions into personal schedules. Simon™ has numerous other potential uses including ovulation monitoring, baby monitoring, athletic training and organizational coaching.

List of features:

- Storage and Analysis of health information in real-time
- Scheduler/Reminder with vibrating alert
- Customizable buttons for control and emergency
- Energy harvesting, water-resistant
- Built in Sensors: Temperature sensor, accelerometer, heart rate monitor

How to Market Simon™

Simon™ has enormous market potential based on the number of individuals who currently suffer from cardiovascular disease. Our initial users will be middle to upper class individuals between the ages of 35-70 who have cardiovascular disease. According to the American Heart Association, greater than 58 million people in US with cardiovascular disease do not partake in regular exercise. We conservatively anticipate acquiring 2% of this market within 3 years. Simon™ is inexpensive to manufacture (< \$50 US) and can be charged at relatively low retail price (\$200-\$300 US). The total revenue is estimated to be at ~ \$232 million. While customers

can enjoy free online services with limited features, they can also be charged at a nominal monthly fee for premium services.

Besides using digital and printed media, we intend to develop alliances with doctors and health care institutions in order to gain notoriety and approval within the field. We also intend to collaborate with large corporations to provide their employees under considerable stress with our services. Because Simon™ will be the leading device of its kind on the market, it is crucial that the Simon™ band and Simon™ software are released simultaneously. Based on the extreme potential and growth of health-related devices, we anticipate Simon™ will generate billions of dollars in revenue.

Our Management Team

Our management team is comprised of members with diverse backgrounds:

- **Arup Chakraborty** has several years of industry experience in semiconductor and telecom software. He is presently pursuing a PhD in Embedded Systems from Bren School of Information and Computer Science at UC Irvine.
- **David Safani** is currently a MD/MBA candidate at The UCI School of Medicine and The Paul Merage School of Business at UC Irvine with an emphasis in Finance. Prior to returning to school he performed research on an exercise program geared towards reducing the incidence of childhood type 2 diabetes.
- **Aaron Samson** is currently a MBA candidate at the Paul Merage School of Business at UC Irvine, with an emphasis in Marketing and Entrepreneurship. Prior to returning to school he founded two companies including “Film Your Story” and “The Next Arena”
- **Jonas Tsai** is an undergraduate student majoring in Electrical Engineering with a minor in Business Management at UC Irvine. He is also a research assistant for INRF (Integrated Nanosystems Research Facility).
- **Arthur Yang Zhang**, is a postdoctoral scholar for INRF and Calit2 at UC Irvine. He is working on medical devices utilizing Micro Electro-Mechanical Systems and wireless sensor networks.