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ALPHA - the Holy Grail of Heart Rate (Look Ma, no hands!)



Alpha is the world's first strapless, continuous heart rate watch that is ECG accurate, on the WRIST at run speeds up to 20 kph!

Created by

Liz Dickinson

1,366 backers pledged \$321,314 to help bring this project to life.

📅 **Last updated** [December 8, 2014](#)

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pledged of \$100,000 goal

1,366

backers

Funding period

Jun 25 2012 - Aug 9 2012 (44 days)

Story

ALPHA - The Holy Grail of Heart Rate.
Look Ma, no hands!
... and for that matter, no chest strap either!

**ALPHA BACKERS ARE THE A - TEAM! WE
HAVE NOW REACHED OUR FIRST VALUE
ADD GOAL!**

**WE DID IT! WE RAISED \$250K+ SO WE CAN OFFER A SECOND COLOR
CHOICE!**





NEW NEW NEW NEW!!!!

Is it remotely possible to double our pledges in 4 days? IT CAN BE DONE! IT HAS BEEN DONE!

If each of you can **get a friend** to **MATCH YOUR** pledge, we **CAN MAKE OUR OTHER VALUE ADD GOALS!**

AN INCENTIVE TO CONVINCE A BUD TO PLEDGE...T-SHIRTS FOR ALL!!!!!!

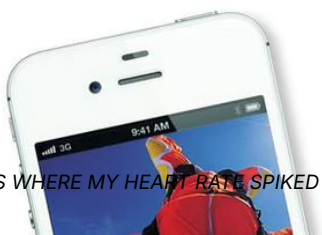
(If your pledge level already includes a T-Shirt, we will send you a second T-Shirt of your choosing. If your pledge level includes three or more watches, we will add additional T-Shirts beyond the one gift offered if you increase your pledge by \$5.00 for each additional T-Shirt you want.)

WHAT ARE WE TYPE A FOLK SHOOTING FOR?

AS WE PASS \$400K EVERY PLEDGE @ \$99 or up will receive ONE super coveted, sought after "I'm an ALPHA MALE" or "I'm an ALPHA FEMALE" T-Shirt.**

IF WE CAN RAISE \$500K+ (BE STILL MY BEATING HEART!) WE WILL INTEGRATE WITH FITBIT!

IF WE CAN RAISE \$800K+ WE WILL CREATE A HEART THUMPING INTEGRATION ACTION APP!

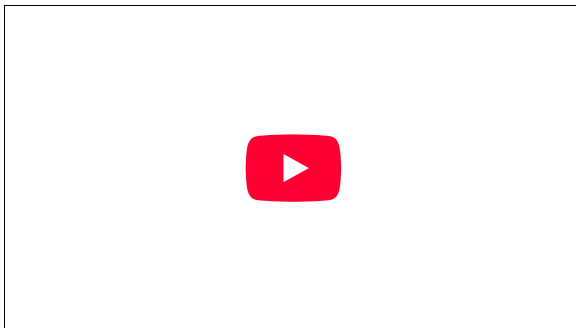


THERE! THAT'S WHERE MY HEART RATE SPIKED I WAS SO FREAKED!



And they said it couldn't be done!

Alpha is the world's first strapless, continuous heart rate monitor watch you can wear on your wrist tested EKG accurate even while you are running at performance speeds of up to 20kph (12mph).



* In the video, we are using our ANT+ version of ALPHA transmitting to the iPhone. Our BT4.0 implementation does not require a dongle with the iPhone since the iPhone includes the BT4.0 chip set.

What are they saying now?

[TechHive Beta Blog](#)

[DC Rainmaker's First Look Review of Alpha](#)

[Runner's World Reviews Alpha](#)

[John Biggs Review of ALPHA on TECHCRUNCH](#)

[Mashable Business](#)

[All Things D](#)

[Techvibes names ALPHA one of the Best Canadian Kickstarter Projects](#)

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[Triathlon's Liz Hichens Interviews Liz Dickinson](#)

So what's so cool about Alpha?

Before Alpha, the most common way to get an accurate heart rate continuously while exercising was to wear a strap around your chest that transmits the electrical signal from your heart to a watch. In 2001, Liz Dickinson invented the MIO heart rate watch. MIO was the first heart rate watch to provide heart rate without a chest strap by using finger touch technology - the user needed to touch the sensors on the face of the watch to get a reading.

Not until Alpha has there been a solution to display EKG accurate heart rate continuously, even at performance running speeds of 12mph. Actually, we know it is accurate at speeds even higher than 12mph but try finding a test subject that can run that fast! Alpha has been tested to be EKG accurate by Philips Electronics and also by an independent test facility at the University of Maastricht in the Netherlands. The results have given us confidence in Alpha's performance and accuracy.



Easy to use – really!

The great thing about Alpha is that it now makes heart rate monitoring easy and accessible to everyone. What could be simpler than putting Alpha on your wrist and seeing your heart rate at all times? Alpha is intuitive. Only two buttons to push and only the most essential features:

- Time
- Continuous Heart rate
- In and out of heart rate zone alerts ("Fast-Glance" Tri-Color LED plus audible alarm)
- Timer
- Last run stats review (total run time; "in zone", average and max heart rate)



For other functions such as speed, distance, pace, GPS etc., use your favorite smart phone app. Alpha is compatible with all smart phones via **Ant+** or **BT4.0**.

Or, if you have an interest in app development, you can design and develop your own iOS or Android apps to make use of the continuous heart rate data transmitted from Alpha. The only limit is your imagination. Just think of all of the possibilities to combine heart rate with phone, GPS, camera, video, accelerometer... Kind of turns that propeller, doesn't it?





Ain't she sweet?

Alpha is a work of outstanding and thoughtful design. It is highly functional but extremely simple and beautiful to look at. It is comfortable to wear all day and fits a broad range of wrist sizes.



Why is this technology important for athletes?

Whether you are training during the on or off season, monitoring your heart rate is both useful and beneficial in many different ways. By tracking your heart rate while training, you are easily able to control the intensity of your workout, while also discovering what areas might need some extra attention. It is not uncommon for athletes to overwork between seasons, which can cause more harm than good in the long run. Knowing the patterns of your heart rate well can possibly mean the difference between sustaining an injury from working too hard, or simply not working hard enough. Heart rate monitoring adds accuracy to and optimizes every workout, ultimately leaving athletes well trained and productive.





But what about the rest of us?

Heart rate monitoring is not only useful to athletes; it should play a significant role in your everyday life as well. Wearing a heart rate monitor while you exercise can help you reach the appropriate speed and intensity necessary to achieve your fitness goals. It's important for a healthy brain and staying young, weight loss, preventing disease, optimizing workouts, and managing stress. Life today can seem impossibly busy at times, but it is important to always maintain your health and fitness. With the Alpha on your wrist you can make the most of that effort, maximizing your workout and minimizing your time.

Can ALPHA be used to measure my resting heart rate and in every day life?

Alpha's technology has been specifically optimized for running and biking because those activities have previously posed the most significant challenges to strapless heart rate monitoring. But certainly ALPHA can be used to do fitness tests - measuring how fast your heart slows down after vigorous exercise; or to monitor your resting heart rate over time (which can yield important info about your health and fitness). It can be used while walking, moving around, sitting at your desk, in all types of daily life activities. But the real challenge we had to overcome - the thing that makes ALPHA the Holy Grail of Heart Rate - is how well it works in those high intensity performance activities like fast running.

What is the technology used in ALPHA to sense heart rate?

The ALPHA uses electro-optical technology to sense the heart beat. A "classical" version of this technology has been employed in hospitals for many years. It works well when applied on the ear or forehead and if the person doesn't move too much. It simply fails when the person is running instead of sitting still, and the more so if the measurement device is worn on the wrist. The ALPHA contains a disruptive innovation that upgrades this existing technology so it is able to show the heart beat of runners. With these enhancements to the technology the heart rate is both measured and shown continuously in one single wrist-worn device.





How does it work?

Two light beams and an electro-optical cell “sense” the volume of blood under your skin. Because the blood volume pulsates in the rhythm of the heart, so does the signal from the electro-optical cell. This signal is processed by an advanced electronics circuit and passed on to a highly specialized computer program that is embedded in the ALPHA. To date, the stumbling block with this type of technology has been that arm movements while walking or running strongly interfere with the electro-optical signal to the point that it is no longer possible to extract the heart rate from it. In order to solve this problem the ALPHA has been provided with a separate motion detector. The computer program is able to use the information from this detector to compensate for the disturbance that is generated in the electro-optical signal by walking or running motions. As a result, the ALPHA can display an accurate heart rate even during motion intense activities.

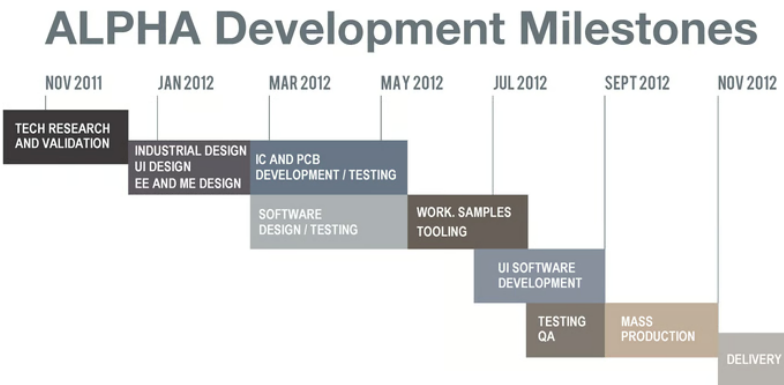


C'mon, are you really going to pull it off?

It is a bit humbling to look at the long list of those that have tried to do what we have done. We have gone further than anyone. To our knowledge, no inventor, nor company for that matter, has been able to create working prototypes of a strapless, continuous wrist based heart rate monitor that has been tested accurate at speeds of up to 12mph.

To produce ALPHA we have chosen to work with one of the world's most respected factories in the PRC. Our manufacturer, with which my team has a long history, supplies technological products like watches and sports instruments to the biggest watch and sport brands. Our lead Engineer, Manson Fei, lives in HK and travels back and forth to meet with our manufacturer almost on a daily basis. He is managing the project development with dedicated engineering resources supplied by our manufacturer, and with the ongoing consultation and periodic on-site involvement from the Philips' development team.

Most of the technological risk is behind us but we really need your help to get across the finish line. Now that we are confident that the core heart rate technology is solid and can be implemented into a wrist watch, we have to turn our attention to developing the user software so that we can deliver an outstanding user experience for our Kickstarter supporters. We also need to cut manufacturing tools and procure specialized equipment required for our manufacturing process. Here are the major milestones of the project plan.



The amount of funding we require to achieve the final milestones is \$100,000. We hope you will find it in your heart to help us deliver this long sought after, valuable and useful technology.

REWARDS FOR PLEDGING

There are great rewards for pledges starting at \$1.00 for our monthly tips for "Living the ALPHA Life"; the latest information on training, diet and mental preparation for outstanding health and athletic performance written by ALPHA experts like Dr. Oz's personal trainer Joel Harper, or two time All-American member of the US Taekwondo team and Guinness Book

of World Records Holder, Dr. Tom Seabourne.

A \$25 pledge will be rewarded with your choice of a triple AAA (AWESOME ALPHA ATHLETIC) shirt. You will be the ENVY of your gym!



AWESOME ALPHA ATHLETIC APPAREL

And higher pledge levels of \$99 or more are rewarded with one or more ALPHA in your choice of either BT4.0 or ANT+.

THANK YOU FOR YOUR SUPPORT.

Risks and challenges

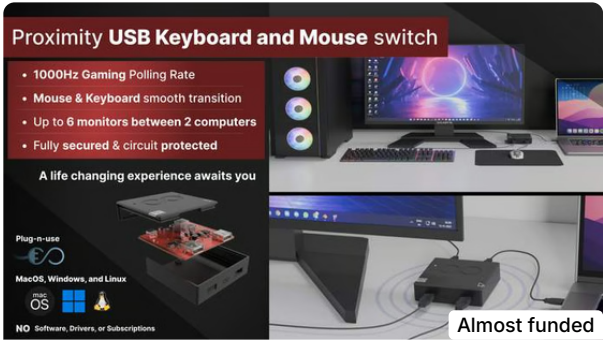
[Learn about accountability on Kickstarter](#)

Questions about this project? [Check out the FAQ](#)

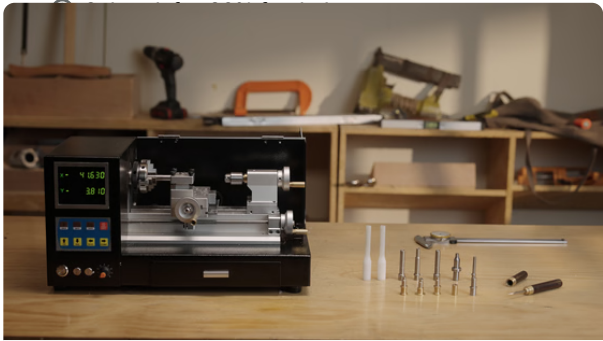
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