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Executive Summary

Milo detects blood alcohol content (BAC) by means of non-invasive transdermal sensing. Milo surpasses previous generations of transdermal sensing with an all-liquid-phase collection of ethanol (Milo NIH Video:https://vimeo.com/147441374) for improved accuracy and response time, and the use of a disposable enzyme cartridge (US Patent Pending) for high precision and reduced cost. The Milo electronics use op-amps that amplify the small currents created by the enzymatic activity into voltages that can be read by an analog-to-digital converter and transmitted to a smartphone via Bluetooth LE.

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Milo Alpha - The Milo Prototype

Milo Alpha is a working embodiment of our Patent Pending (Provisional Patent Application #62163284) cartridge technology for the transdermal detection of ethanol.

Milo Alpha has demonstrated:

- an accurate transdermal measurement of BAC
- continuous ethanol measurement over 3 hours at 1 data point per second
- transmission of BAC data via Bluetooth LE to a smartphone
- secure storage of BAC data on a smartphone

We have conducted experiments to demonstrate how Milo Alpha meets the technical requirements specified in the call for applications, and to show how Milo's sensing technology is superior to competing approaches to transdermal alcohol sensing. To this end, we calibrated the Milo ethanol sensor using two methods that independently measured the accuracy of the sensor sub-components: UV-Vis spectroscopy to measure membrane performance, and chronoamperometric titrations to calibrate the sensor response. In the spectroscopic method, we measured the total amount of ethanol that permeated through various membranes in a given time in order to calibrate the permeability of diffusion-limiting membrane materials. In the chronoamperometric method, we constructed titration curves and recorded the absolute currents measured by Milo's sensor while injecting increasing amounts of ethanol into our cartridges. Together, the two analytical methods provided accurate calibrations for the conversion of electrochemical current to ethanol concentration in the blood. Ultimately, we carried out on-skin tests to show how well the validation of our methods consolidated in a practical, wearable device. The data collected (shown in the following sections) demonstrates the accuracy and reliability of Milo's ethanol determinations, with unparalleled time-resolutions of one data point per second.

Our first miniaturized prototype (Milo Alpha) is more than just a cartridge with good sensing chemistry, it is the first wearable, consumer device that detects blood alcohol content through the skin by sensing trace amounts of alcohol in perspiration. Milo is a proactive, simple solution for detecting and monitoring BAC. The Milo sensor (US Patent Pending) communicates with a smartphone and sends BAC information to the Milo App to: 1) display BAC at any time; 2) estimate time to sobriety (0.0 BAC); 3) alert users when they reach certain self determined BAC limits; and 4) allow users to designate friends to be notified when a predetermined BAC is reached.

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The Milo App is a discreet way to check BAC in a public setting and overcomes the social stigma associated with personal breathalyzers. The data collected by the Milo App is accessible in the form of a single read-out value or in charts of BAC over time, and is transferable to user-selected apps such as the Health App in Apple devices. The data recorded by the Milo App is safely stored in smartphones and is secured by numerical encryption. Since BAC values are single point measurements over time, the data collected in the Milo App can easily and accurately be transmitted between smartphone devices with "opt-in" permissions by the user. We have used industry-standard AES encryption to protect the privacy of data wirelessly transferred between devices.

Milo, Inc. has optimized the chemical composition and design of the sensing cartridges to achieve maximum accuracy and reliability, and plans to protect this knowledge as a trade secret. Our initial plan for cartridge manufacturing is to install a small assembly line with in-house production of enzymes and outsourced injection molding of the sensing cartridge housings. The electronic components of Milo Alpha are currently being manufactured by Clarity Designs, Inc., an electronics manufacturing company in San Diego, California with 24 years of experience in mass-production and scale-up of electronic designs.

Our initial target market consists of U.S. individuals age 21 or over that consume alcohol regularly, own a smartphone, and use a health-tracking device (e.g. heart rate monitor, activity tracker). We expect that our early adopters will consist of the "quantified self" community, a $2 Billion market of people that track every aspect of their digital lives. Our go-to-market strategy consists of promoting our product locally and gathering testing data needed for our pre-order phase. Additionally, we will tap into online tech communities (e.g. Techcrunch, Gizmag & Popular Science) to expand our reach nationwide. As we increase our online presence, we will execute a crowdfunding campaign to fund our first production order. Milo, Inc. will have two primary revenue streams: 1) initial purchase of Milo, $99.99 (73% margin, direct to consumer). This includes a wristband and 5 one-time-use disposable cartridges; and 2) purchase of refill cartridges (50% margin, direct to consumer). Refill cartridges will be a recurring revenue stream for Milo, Inc. Refill cartridges (5 pack) will be sold for a $9.99 monthly subscription fee (cartridges are one time use). Milo Inc.'s sensor technology is well suited for licensing opportunities in the wearables space, where the ubiquitous heart rate monitors and accelerometers have created an industry ripe for disruption. Future Milo, Inc. sensors will detect uric acid, lactic acid, glucose, hormones, and other small molecules excreted through the skin.

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The Milo Sensor Technology

The Milo sensor contains an enzyme that specifically detects ethanol. A schematic of the enzymatic pathway is illustrated in **Figure 1**. The enzyme alcohol oxidase (AOD_{ox}) catalytically oxidizes ethanol (EtOH) to acetaldehyde (MeCHO) in a two-electron redox process. The electrons captured in the now reduced form of the enzyme (AOD_{red}) are used to convert O_2 to H_2O_2. Subsequently, horseradish peroxidase (HRP_{red}) catalyzes the reaction of H_2O_2 to water and generates (HRP_{ox}). In a final step, HRP_{ox} reacts with ferrocene (Fc) to produce ferrocinium (Fc^+), the inorganic complex detected by the Milo sensor. The cascade of reactions produces a net change of 2 moles of electrons per mole of ethanol. The final steps of the cascade were verified independently by electrochemically sensing added H_2O_2 to a cartridge that contained no alcohol oxidase (**Figure 2**).

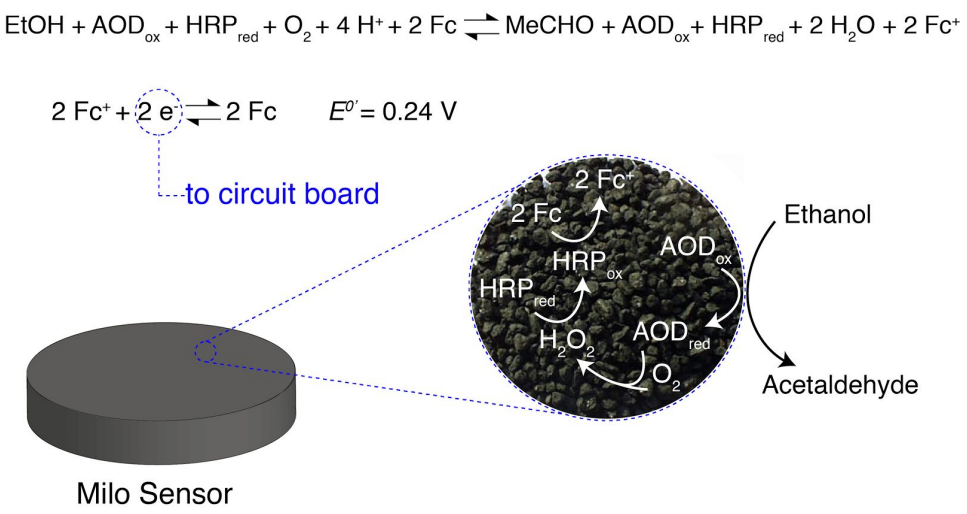

Figure 1. Milo's sensor detects ethanol via a cascade of catalytic/enzymatic reactions.

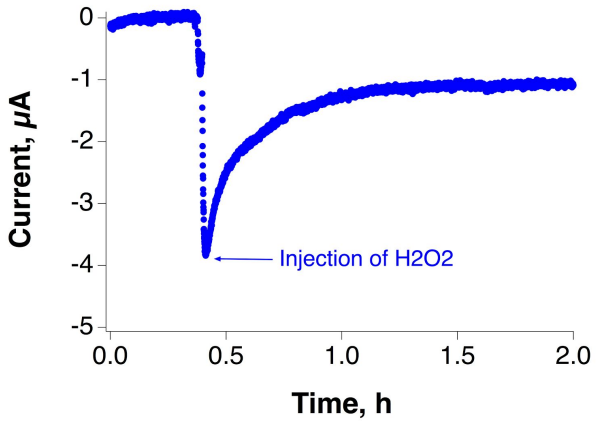

Figure 2. Current vs time, at an applied voltage of -0.05 V *vs* Ag/AgCl in a sensor that contained no alcohol oxidase, after an injection of hydrogen peroxide.

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Accurate Transdermal Ethanol Sensing Independent of Sweat

The skin on the wrist is composed of several layers, including an approximately 20 µm-thick outer layer known as the stratum corneum.[1] Ethanol, a small molecule, diffuses through the various layers of skin, even when a person is not sweating. However, the flux of ethanol will vary strongly depending on whether a person is sweating or not.[2] The Milo sensor allows for an accurate reading of blood alcohol concentration regardless of sweat flux by means of a diffusion limiting membrane.

The Milo BAC sensor catalyzes the oxidation of ethanol resulting from the flux of ethanol into the Milo sensor. The net flux is a function of the blood alcohol concentration, the permeability constants of the epidermis, stratum corneum, Milo membrane, and liquid in the Milo sensor. The flux of ethanol across layer i can be calculated through application of Fick's Law[3]:

$$J_i = k_i \Delta C_i \qquad \text{(Equation 1)}$$

where J is the flux of ethanol, k is permeability, and ΔC is the concentration differential. The BAC will be a function of the concentration differentials across each layer of skin plus the concentration in the sensor itself:

$$BAC = C_{sensor} + \Sigma_i(\Delta C_i) \qquad \text{(Equation 2)}$$

In steady state, the flux is constant across all the layers and the resulting BAC is:

$$BAC = C_{sensor} + J\,\Sigma_i \frac{1}{k_i} \qquad \text{(Equation 3)}$$

With values for thickness and permeability of skin[4], water[5], and our membrane material we can construct **Table 1**.

[1] Böhling, A. et al. "Comparison of the stratum corneum thickness measured in vivo with confocal Raman spectroscopy and confocal reflectance microscopy." *Skin Research and Technology* 20.1 (2014): 50-57.
[2] Swift, Robert M. "Transdermal measurement of alcohol consumption." *Addiction* 88.8 (1993): 1037-1039.
[3] Blank, Irvin H. "Transport across the stratum corneum." *Toxicology and Applied Pharmacology* 14 (1969): 23-29.
[4] Gregory D. Webster and Hampton C. Gabler. "Feasibility of transdermal ethanol sensing for the detection of intoxicated drivers." *Annual Proceedings/Association for the Advancement of Automotive Medicine* 2007: 449.
[5] Elizabeth E. Hills et al. "Diffusion coefficients in ethanol and in water at 298K: Linear free energy relationships." *Fluid Phase Equilibria* 303.1 (2011): 45-55.

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Table 1. Layer thicknesses and permeabilities

Layer	**Thickness [cm]**	**Permeability [cm/s]**
Epidermis	0.02	2.5×10^{-4}
Stratum Corneum	0.0015	3.3×10^{-7}
Milo membrane	0.0018	6.1×10^{-8}
Buffered water in cartridge	0.01	1.2×10^{-3}

The flux of ethanol can be well-estimated by considering only the permeabilities of the stratum corneum and the Milo membrane since they are so much lower than the epidermis and buffered water layers, and are therefore the flux-limiting layers.

The Milo electrochemical sensor measures an electrical current I which in steady state is proportional to the flux of ethanol molecules:

$$I = n\,F\,A\,J \qquad \text{(Equation 4)}$$

where n is the number of electrons per ethanol oxidized, F is Faraday's constant, and A is the surface area. Rearranging gives:

$$J = \frac{I}{n\,F\,A} \qquad \text{(Equation 5)}$$

From **Equation 5,** we can relate electrical current to flux. As an example, if a 200 nA current is measured in a sensor of 1.27 cm^2 area, using an electrochemical process with n = 2 electrons, the resulting flux can be calculated to be:

$$J = \frac{I}{n\,F\,A} = \frac{200\ nA}{2 \times 96500\ C/mole \times 1.27\ cm^2} = 8.2 \times 10^{-13} moles/(cm^2 s) \qquad \text{(Equation 6)}$$

With the thicknesses δ, and permeabilities for the flux-limiting layers given in **Table 1**, we can calculate the total concentration differential as:

$$\Delta C = \Sigma_i C_i = \Sigma J \frac{1}{ik_i} =$$
$$8.2 \times 10^{-13} moles/(cm^2 s) \times \left(\frac{1}{6.1 \times 10^{-8} cm/s} + \frac{1}{3.3 \times 10^{-7} cm/s}\right) = 1.59 \times 10^{-5} moles/cm^3 = 15.9\ mM$$

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Calibration of Milo Alpha

We calibrated the Milo sensor by carrying out chronoamperometric titrations where increasing amounts of ethanol were sequentially injected into prototype cartridges. **Figure 3** shows an example titration performed on a single-hole sensor device. **Figure 4** shows a titration curve constructed by plotting the data from **Figure 3** at t = 5 min. after each injection vs the total concentration of ethanol in the cartridge.

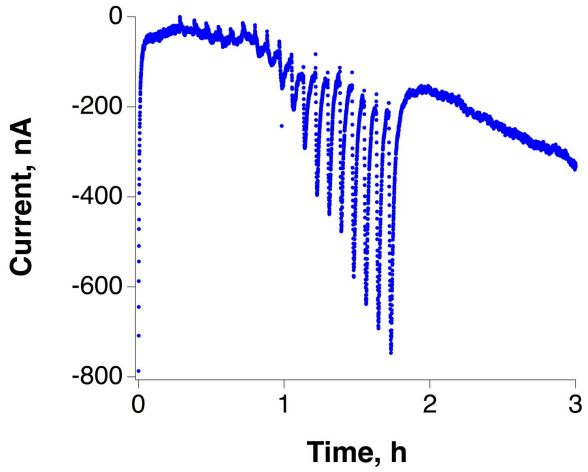

Figure 3. Chronoamperometric calibration of Milo Alpha with a single hole. This plot of current vs time shows the response of the sensor to multiple injections of ethanol. The concentration increases from left to right.

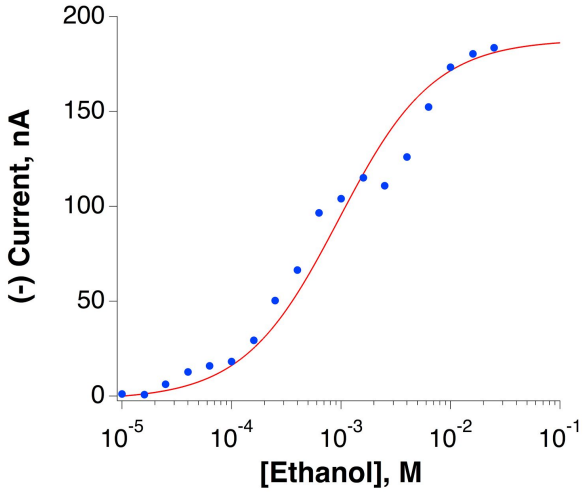

Figure 4. Titration curve for Milo Alpha. This plot of (-) current vs concentration of ethanol shows a quasi-Langmuir fit of the sensor response. The red line represents a fit of the experimental data using the Langmuir isotherm with a dissociation constant of K_d = 950 µM and a saturation current of i_{sat}=190 nA.

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The baseline current of 35nA observed before the start of the titration in **Figure 3** was subtracted from all data points to obtain the titration curve in **Figure 4**. We will minimize data scatter in the future by further optimizing the composition of the sensing carbon-based pellet.

Selection of Membrane Material

The Milo sensor currently uses an 18 μm-thick layer of LDPE as the diffusion limiting membrane. We chose this membrane based on experimental measurements of ethanol permeability through the LDPE membrane over time. To determine the amount of alcohol that permeated through the membrane, we used a coupled assay with alcohol oxidase (AOD) and horseradish peroxidase (HRP), in which the absorbance of oxidized 2,2'-azino-bis(3-ethylbenzthiazoline-6-sulphonic acid) (ABTS), a chromophore, is measured at 410 nm wavelength as a function of time. The best fit slope of absorbance vs time in the spectroscopic assay, for varying membrane incubation times, is shown in **Figure 5**.

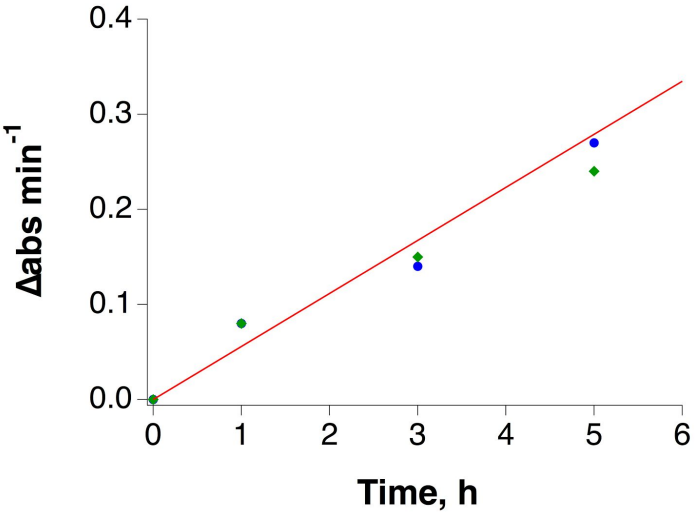

Figure 5. The total amount of alcohol that permeates through the Milo membrane for a given time is determined with an spectroscopic assay that monitors enzymatic activity.

A titration curve was produced to relate the change of absorbance per minute to ethanol concentration. The change of absorbance is converted to the final concentration of ethanol (C_{final}) using the linear slope from the titration curve shown in **Figure 6**:

$$[EtOH]/\mu M = (\Delta Abs/min - 0.0001892)/0.0008476 \qquad (Equation\ 7)$$

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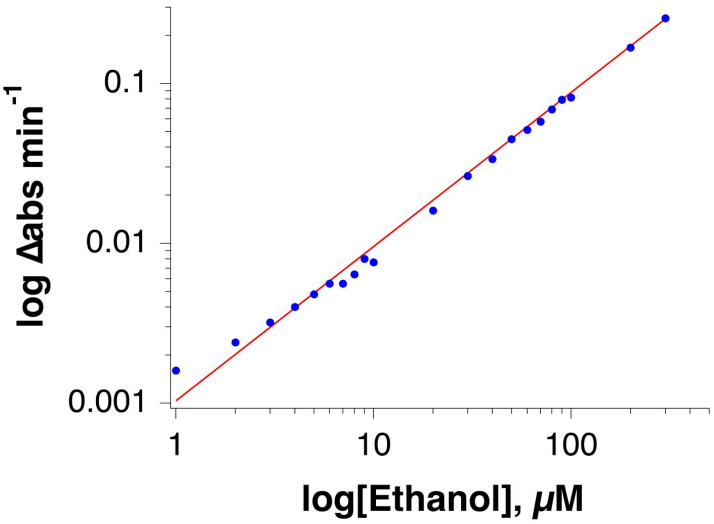


Figure 6. Titration curve correlating a known ethanol concentration to the rate of change of absorbance vs time in the spectroscopic assay.

The permeability (k) of the membrane is calculated using Fick's Law:

$$k = \frac{C_{final}\, V}{A\, t\, \Delta C} \qquad \text{(Equation 9)}$$

where the change of absorbance at 5 hours is 0.2530/min, which correlates to a C_{final} *of* 296 μM using **Equation 7**. C_{final} is the [EtOH] collected after 5 hours based on the absorbance assay, A is the area of the membrane exposed to the alcohol solution, V is the volume inside the membrane collection sample, t is the time for the membrane is incubated in ethanol, and ΔC is the concentration differential between the membrane collection sample and the alcohol solution.

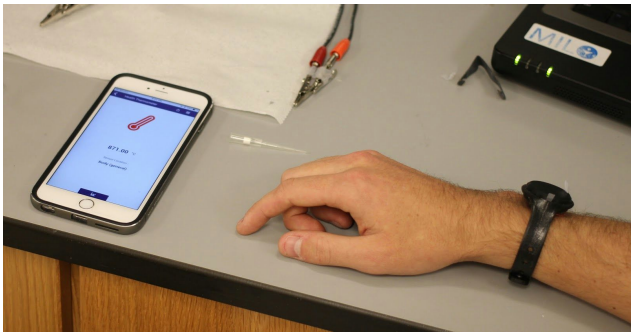
- $\Delta C = 17\ mM$
- $V = 4.0\ mL$
- $A = 63\ cm^2 \pm 30\ cm^2$
- $t = 5.0\ hrs$
- $C_{final} = 296\ \mu M$

Our preliminary experiments had significant variation in the surface area of the membrane exposed to liquid. Since the permeability of the membrane is directly related to our estimate of BAC, this is our primary source of error. As we continue developing, we will hone our membrane characterization using membranes of well-defined surface area.

From **Equation 9**, the permeability of the Milo membrane material can be calculated to be: $k = 6.1 \times 10^{-8}\ cm/s$.

Milo Alpha - The Skin Test

We have performed over fifty iterations of laboratory tests on various combinations of Milo sensor designs and membrane materials. Our extensive lab-scale efforts have culminated in the development of a fully integrated Milo Alpha prototype. (shown on the right) We carried out on-skin tests to validate the applicability of our technology to transdermal alcohol sensing.



We report results, **Figure 7**, from a Milo Alpha test performed on a consenting 155 lb male test subject (CEO Evan Strenk). Our subject drank 3x 1 oz shots of a 40% alcoholic beverage (rum) within 10 minutes, and his BAC was continuously monitored for 3 hours with both Milo Alpha and an AlcoHawk breathalyzer. The data collected with Milo Alpha was transmitted wirelessly from the wearable sensor via Bluetooth LE and retrieved on an iPhone via the CySmart Temperature Monitor App. The data was securely stored, and subsequently shared on another device by emailing it from the iPhone to an email address via a wireless internet connection. The measurements carried out with the AlcoHawk breathalyzer were recorded every 10 minutes with two purposes: 1) to determine BAC with a secondary technology (positive control); and 2) to compare the performance of Milo Alpha vs. a competing technology (breathalyzer).

To relate the single-hole sensor readings to our Milo Alpha skin test values, where a 5-hole sensor was used, we can multiply the currents in **Figure 4** by a factor of 5. Hereby, the device concentration, given a sensor reading of 200nA (40nA on the comparable titration curve), is 0.3mM. As an example calculation for one data point:

$$BAC = 0.3mM + 15.9mM = 16.2\ mM$$

or in more familiar units: BAC= 0.074 g/dL.

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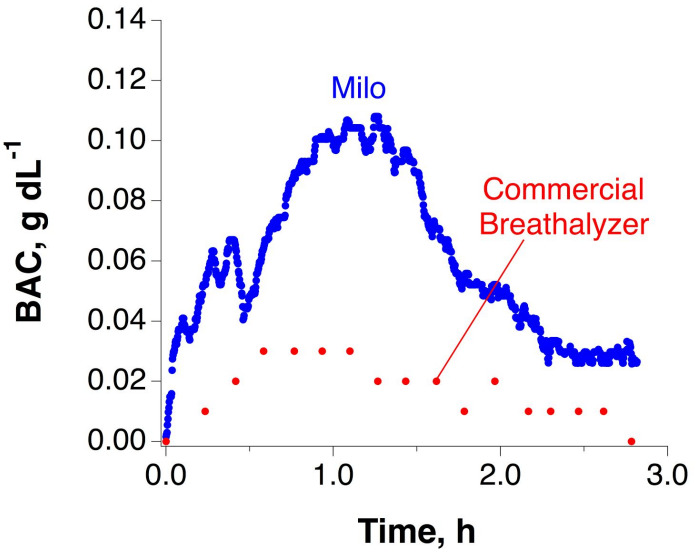

Figure 7. "On skin" test of Milo Alpha on human subject after ingestion of 3x 1 oz shots of an alcoholic beverage at t = 0.

As observed in **Figure 7**, the Milo sensor measures BAC in accordance with expectation: upon ingestion of alcohol, the sensor shows a quick increase in BAC to peak of approximately 0.10 g dL^{-1}, followed by a slow decline to sobriety. The breathalyzer measured a peak of 0.03 g/dL. Given his alcohol intake, we can estimate[6] that our subject should have a peak BAC of 0.053 g/dL. The peak BAC value measured with Milo Alpha is in similar agreement with prediction as the peak value measure with a breathalyzer. From this result, we can conclude that Milo is capable of an accurate measurement of BAC. We are continuing to improve the characterization of our membranes and will achieve even more accurate reading in the future.

Timescale of the BAC Measurement

The human body has a characteristic response time to ethanol. There is a time delay of approximately 80 minutes between when an alcohol-containing beverage enters the stomach and when ethanol reaches its peak concentration in the bloodstream. In addition to this physiological delay, the skin provides another barrier. The characteristic timescale for flux to reach steady-state[7] in a 1-D diffusive system is:

$$\tau_i = \frac{\delta^2}{6D} = \frac{\delta_i}{6k_i} \qquad \text{(Equation 10)}$$

[6] "BAC Calculator - Center for Student Well-Being - University ..." 2015. 1 Dec. 2015 <http://mcwell.nd.edu/your-well-being/physical-well-being/alcohol/blood-alcohol-concentration/bac-calculator/>

[7] Barrer, Richard Maling. *Diffusion in and through solids*. Рипол Классик, 1941.

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Using values in **Table 1** with **Equation 10**, it can be deduced that the stratum corneum provides a delay with a characteristic response time of approximately 13 minutes. Similarly, Milo Alpha can be calculated to have a characteristic response time of approximately 82 minutes. We are currently developing sensors with faster response times by tuning the membrane thickness and membrane permeability. Moreover, it is important to note that there is a difference between the characteristic time-scale for an exponential decay process and that of a simple time-shift. The first ethanol molecules will start leaving the skin instantly after they enter the bloodstream and will be detected by Milo Alpha relatively quickly. Fortunately, the physics of diffusion are well-understood, and numerical deconvolution of transdermal signals[8] can also be used to make even more accurate estimates of BAC from transdermal data.

The Milo Electronics

The Milo electronics use an op-amp integrated circuit specifically designed for electrochemical measurements (LMP91002) in order to amplify the small (<1μA) currents created by the Milo sensor into voltages readable by an analogue-to-digital converter (~1V) inside a microcontroller (PSoc 4). The microcontroller transmits the signals with Bluetooth LE via an antenna on the circuit board. A 3D rendering of the electronics, battery, and cartridge, enclosure, and wristband are shown in **Figure 8.**

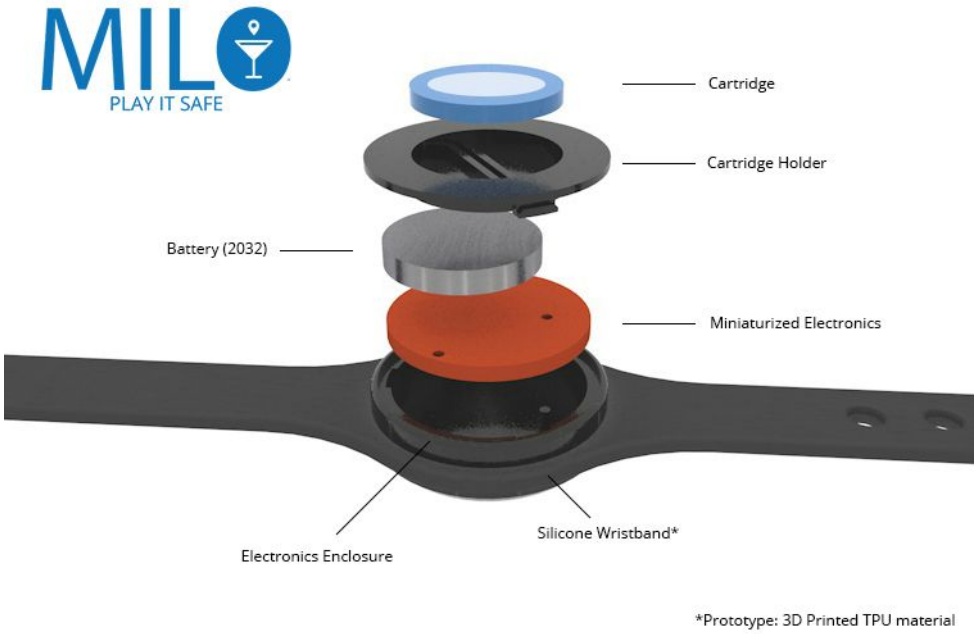

Figure 8. Schematic rendering of Milo Alpha.

[8] Dumett, MA et al. "Deconvolving blood-alcohol concentration and alcohol beverage consumption from sensor measurements of transdermal alcohol." *PAMM* 7.1 (2007): 1061007-1061008.

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The Milo App

A *B* *C* *D*

Milo will communicate with a smartphone and send BAC levels to the Milo App to:

a) Display BAC at any time

- Users will be able to access their BAC level at any time just by glancing at their phone.

b) Estimate time to sobriety (0.0 BAC)

- Our predictive algorithm will estimate when a user will return to zero BAC, allowing them to make safer, more educated decisions while consuming alcohol.

c) Alert users when they reach certain self-determined BAC levels

- Users will be able to set "alarms" for themselves and be notified when they hit their desired limit.

d) Allow users to designate family/friends to be notified when a predetermined BAC is reached

- Users will be able to pre-select family/friends to be notified via SMS Text with a custom message and location when they reach a dangerous limit.

The current version of the Milo App in the submitted prototype does not yet have full functionality.

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Milo Data

Personal information such as blood alcohol concentration is very sensitive. For this reason, the Milo App stores all BAC data locally on smartphones of users. Users can choose to share the data however they would like to, but Milo, Inc. does not collect any of the data. In our future business plan, we may eventually expand to collecting data with user consent, but this will only be done after careful consideration of all relevant regulatory frameworks.

Data Encryption

The Milo App uses AES-256 encryption between the device and the smartphone to ensure that a Milo user's alcohol values remain private. Each Milo electronics device will receive a unique AES encryption key written into the firmware. Users must enter the encryption key on the Milo app, using the unique security key provided to them with their Milo device. The private key will ensure that communication cannot be decrypted. As long as the secret key remains hidden, Milo will be securely paired with the smartphone. Data from the Milo sensor is transmitted as a 12-bit precision value appended by an 12-bit random number initialization vector. The resulting encrypted stream will be secure against attacks that may try to look for patterns in the encrypted stream, as well as robust to brute-force attempts to guess the 256-bit encryption key.

Milo vs Giner WrisTAS

The most technically similar product on the market to Milo is the Giner WrisTAS. However, there are numerous distinctions that allow Milo to have more accurate and more user-friendly performance. These include liquid-phase detection, discreet design, access to BAC information via Bluetooth LE, disposable cartridges, and lower cost.

The Giner WrisTAS relies on ethanol evaporation into vapor-phase inside the device[9], which makes the sensor strongly influenced by changes in ethanol vapor pressure, which results in a device that has a strong temperature and moisture sensitivity and varying device accuracy. Milo uses all-liquid collection of ethanol (no vapor) thanks to a carefully-engineered design and a specific enzymatic pathway that make this possible. The result of liquid-phase detection is lower sensitivity to background temperature and moisture fluctuations.

Whereas the WrisTAS sensor uses expensive Platinum-black teflon-bonded electrodes[7], Milo uses a combined counter/reference silver-chloride electrode in combination with an inexpensive carbon-based enzyme electrode. Currently, the Milo Alpha prototype is constructed using pure

[9] "Patent US5944661 - Potential and diffusion controlled solid ..." 2012. 29 Nov. 2015

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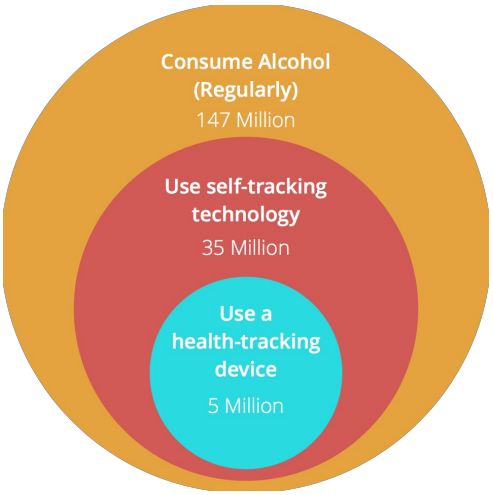
silver wire, but in the future we aim to use a thin electroplated silver layer on a less expensive but electrically conductive base metal layer. The low manufacturing cost of the Milo cartridges allows them to be disposable.

Whereas the WrisTAS sensor cartridge has a 30-day lifespan, which makes the pads sticky and sweaty and prone to fouling[10], Milo uses disposable one-time-use cartridges. As a result, the Milo sensor will always be refreshed daily and there will be no fouling.

Market Strategy



We have completed 300+ in-person interviews through the UCSB New Venture Competition and Citrix Startup Accelerator Program and gathered information necessary to successfully bring our product to market.

Our initial target market consists of U.S. individuals age 21 or over, that consume alcohol regularly, own a smartphone and use a health-tracking device (e.g. heart rate monitor, activity tracker).

We expect that our early adopters will consist of the "quantified self" community, a $2 Billion market of people that track every aspect of their digital lives. We will promote our product locally and gather testing data needed for our pre-order phase. In this stage, we will tap into online tech communities (e.g. Techcrunch, Gizmag & Popular Science). As we increase our online presence, we will execute a crowdfunding campaign to fund our first production order.

Plan for Mass Production

Milo, Inc. has partnered with Clarity Designs, Inc., an electronics manufacturing company in San Diego, California with 24 years of experience in mass-production and scale-up of designs. Clarity Electronics is capable of scaling up to 200,000 units/year and is backed by Arrow Electronics (ARW, NYSE), one of the largest electronic components sourcing companies in the United States. Together, we have designed and built fully functional miniaturized electronics (see prototype).

We have a three stage plan for mass production:

[10] Marques, Paul R, and A Scott McKnight. "Evaluating transdermal alcohol measuring devices." Nov. 2007.

Stage 1: 100 test units

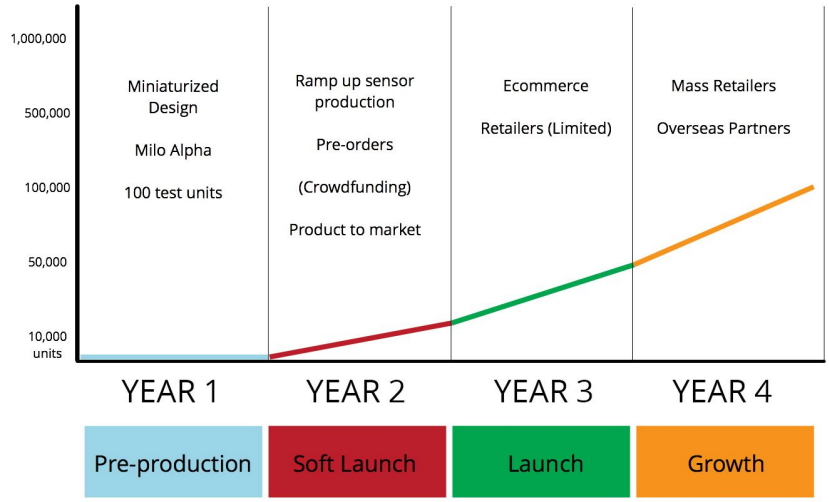
We will manufacture 100 test units in Spring 2016. These units will be tested in the lab and in a small local trial in order to gather information necessary to hone our sensor, design, algorithm, and user interface. After these tests, we will enter our pre-order stage.

Stage 2: Pre-orders - Online orders, Crowdfunding campaign

We plan to promote to the online tech community to access our early adopters; individuals who identify as "quantified self." This is traditionally an extremely active crowdfunding customer segment and will heed well for crowdfunding for Milo. A crowdfunding campaign will allow us to gain feedback, traction, and capital to fund our first production order. Our partnership with Clarity Designs, Inc. allows us to scale up to 200,000 units per year.

Stage 3: Manufacturing Purchase Order - 10,000 units

At this stage, we will be in a strategic position for a Series A investment round. Venture capital funding will allows us to offer our device to the mass consumer space. We have already identified and made connections with future strategic partners such as Bevmo, Total Wine, CVS, Vons, and Safeway. With backing from Arrow Electronics, we will have the necessary manufacturing and supply chain capability to support large orders from wholesale retailers.



Milo: Four Year Plan

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About Us

Milo, Inc. was created by founders Evan Strenk, Bob Lansdorp, and Netz Arroyo in June 2015. Their revolutionary technology (US Patent Pending) took home top honors at the 2015 UCSB New Venture Competition; winning Grand Prize, 1st Place in Technology, and People's Choice.

Since then, Milo, Inc. has moved into the state-of-the art CNSI Incubator Laboratory at UCSB in August, and recently completed the 12-week Citrix Startup Accelerator Program in September to gain consumer insight and market validation.

Milo, Inc. has a team of chemists, engineers, and business leaders that are working around the clock to perfect the design and function of the Milo sensor cartridge and find strategic partners in the local eco-system to mass-produce the various components. In addition to a core team, Milo, Inc. has expert advisors in business strategy, sales, and industrial design.

Evan Strenk	CEO, Co-Founder	Market & Business Strategy
Bob Lansdorp	CTO, Co-Founder	Materials & Mechanical Engineering
Dr. Netz Arroyo	Scientific Advisor	Electrochemistry
Ammar AlMousa	Test Engineer	Chemical Engineering
David Lum	Device Engineer	Biochemistry
Thomas Nguyen	Engineering Intern	Chemical Engineering

Advisory Board

Jill Feldman	Market Strategy	Founder/President, Strategic Development Assoc.
Eric Holmen	Sales Strategy	Exec. VP of Sales, Invoca
Joseph Kerr	Industrial Design	