

matthew choto



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#### education

University of Cincinnati, 2013 Bachelors of Science in I.D. College of D.A.A.P.



University of Chicago, 2008

Bachelors of Arts in Political Science College of Humanities



#### experience

#### NEW BALANCE, Boston MA

Intern Fall 2012, 4 months

Worked in Innovation Studio on future concepts (5+ years out) as well as next season running shoes.



#### HUGE Design, San Francisco

Intern Spring 2012, 3 months

Worked on a multitude of projects focusing primarily in CE. Copious amounts of rapid sketching and 3D modeling.



#### TEAMS Design, Chicago IL

Intern Fall 2011, 3 months

Responsibilities of sketching, and 3D modelling on projects ranging from CE, appliances and power tools.



#### Fisher-Price, East Aurora NY

Intern Fall 2010 & Spring 2011, 6 months

Design intern on the Baby Gear Team and Boys Toys Team. Created both 2D and 3D concepts for internal review and review with consumers.



#### skills

3D modelling in Rhino 3D, familiar with Alias and SolidWorks. Very comfortable with Adobe Creative Suite, SketchBook Pro, and Keyshot. Comfortable working on physical prototypes, welding and sewing.



awards

IDSA Student Merit Award Winner Central (2013)





Every April, roughly 40 brave souls are flown to the geographic North Pole on a converted Antonov AN-74 cargo plane.

Their mission is simple: to run 26.2 miles as quickly as their minds and bodies will allow them.

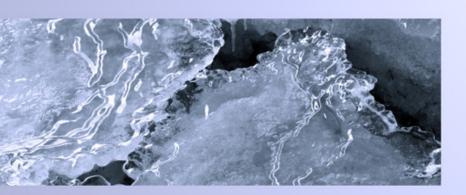




This is running at its extreme







# FORTHUSE WHO PUSH THE LIMITS

### 26.2 Miles run through the geographic North Pole

A once in a lifetime opportunity, the North Pole Marathon is a **grueling physical feat** not for the faint of heart.

With a continually shifting terrain, sub-zero temperatures, and only 6 to 12 feet of ice separating participants from 10,000 feet of Arctic water below, few have the courage and **determination** to partake in such a challenge.

This brutal event pushes runners and their gear to the limit





With temperatures plunging below -30 °C, and the potential for near hurricane strength winds, the brutal conditions of the North Pole requires gear that is **weather proof**.



Terrain varies from soft powdery wind swept snow to hard densely packed snow. This extreme terrain requires an aggressive **traction** system.



With the amount of gear required to brave the elements, runners have to be increasingly **weight** conscious as each ounce of gear requires valuable calories to carry.

Current footwear options leave users having to **compromise** on performance or comfort

































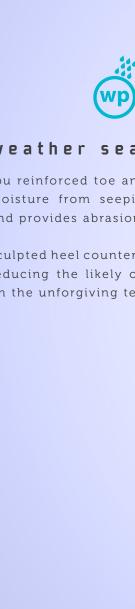






tpu reinforced toe and heel helps keep moisture from seeping into the shoe and provides abrasion protection.

sculpted heel counter provides stability, reducing the likely of rolling an ankle on the unforgiving terrain.











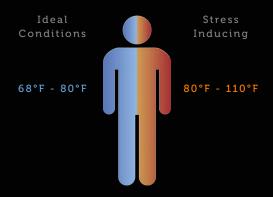
### SELF-COOLING HEADGEAR FOR WELDING PROFESSIONALS

Designed for the Professional welder, working in the most demanding industrial environments, the POLAR self-cooling headgear allows users to retrofit their current welding shield, providing them with a full day of cooling.



### Welding is a tough job

Professional welders are often subject to extremely high temperatures, often averaging 5-7 hours of constant exposure of 105 degrees F and higher all while often wearing ~10lbs of protective gear that traps excess body heat.



## Heat's affect on the body as room temperature rises

- Increased irritability
- Loss of concentration
- · Loss of efficiency in mental tasks
- Loss of efficiency in manual tasks
- Fatigue and threat of exhaustion
- Increased risk of judgement errors





### Consequences of Heat Exposure

In the last 5 years there have been over **3,400 worker fatalities** related to excessive heat exposure.

Half of those fatalities were persons over the age of 65.

This is significant because the average welder age is 54.\*

\*Source: US Department of Labor

# Compromising on Safety to Keep Cool

To avoid having to deal with the heat, many welders often make compromises on their personal safety by removing necessary pieces of protective gear; and as a result leave themselves open to a wide range of immediate issues like skin/eye **irritation**, severe **burns**, or long term issues, such as increased risk of **skin cancers** due to UV light exposure.



Above: example of welding related hum



### **Exisiting Product**

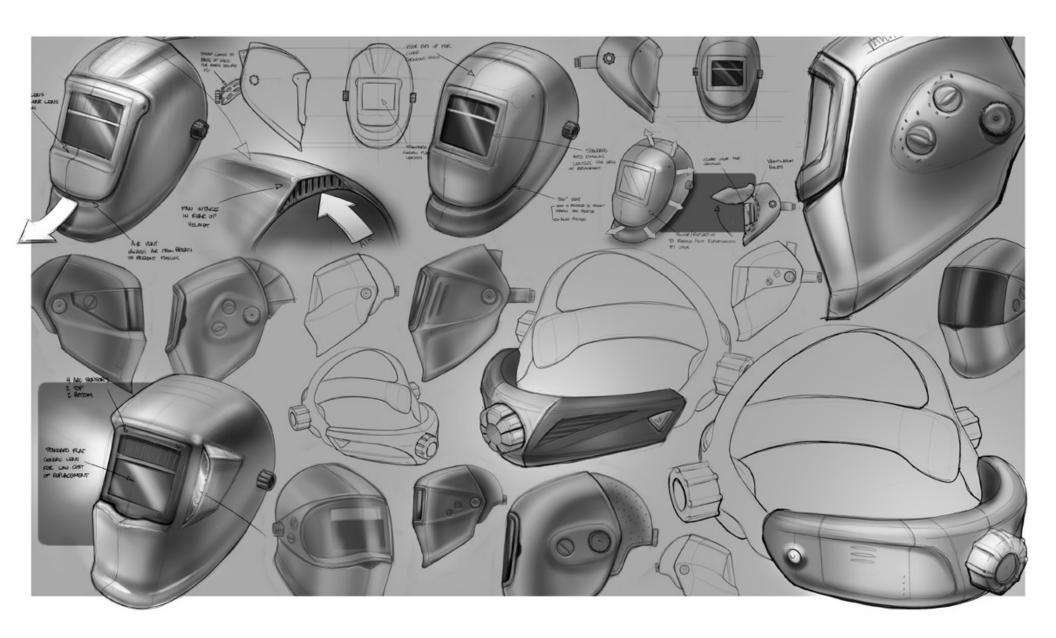
The Miller CoolBelt is the current industry leader in welding hood cooling devices. The product functions by continually blowing cooler air onto the user. Fresh air is drawn in from a device that is strapped to their waist.

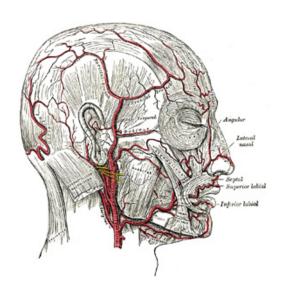
While the device effectively cools its user the **added weight** of the waist device and the **bulky air tube** can interfere with the operators ability to function.

The air cooling also requires regular filtering and cleaning as typically work environments have high levels of air debris.



How can we offer the same level of cooling without compromising on weight and comfort?





#### Maintaining a safe body temperature

The body regulates its internal body temperature by continually pumping blood to the skins surface, which functions like a car radiator by transferring the internal heat to the external environment.

The cooling pads on the POLAR cooling device are strategically placed on three major areas of body heat exchange: the forehead, temporal regions and the nape of the neck.



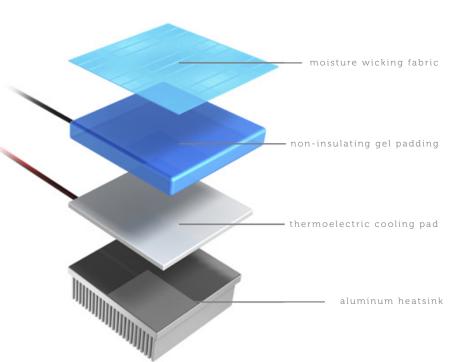


### Understanding Thermoelectric Cooling Devices

A Peltier cooler, more commonly known as a thermoelectric cooling pad, is a solid-state active heat pump which transfers heat from one side of the device to another.

When direct current runs through it, heat is moved from one side to the other. In the case of the POLAR cooling system, the body heat generated by the user is transferred away from the body, keeping them cool and preventing heat exhaustion.

The lack of moving parts, fans, motors, etc., results in a low maintenance, durable solution cooling solution, suited to even the most demanding work environments.









Designed for the most demanding work environments

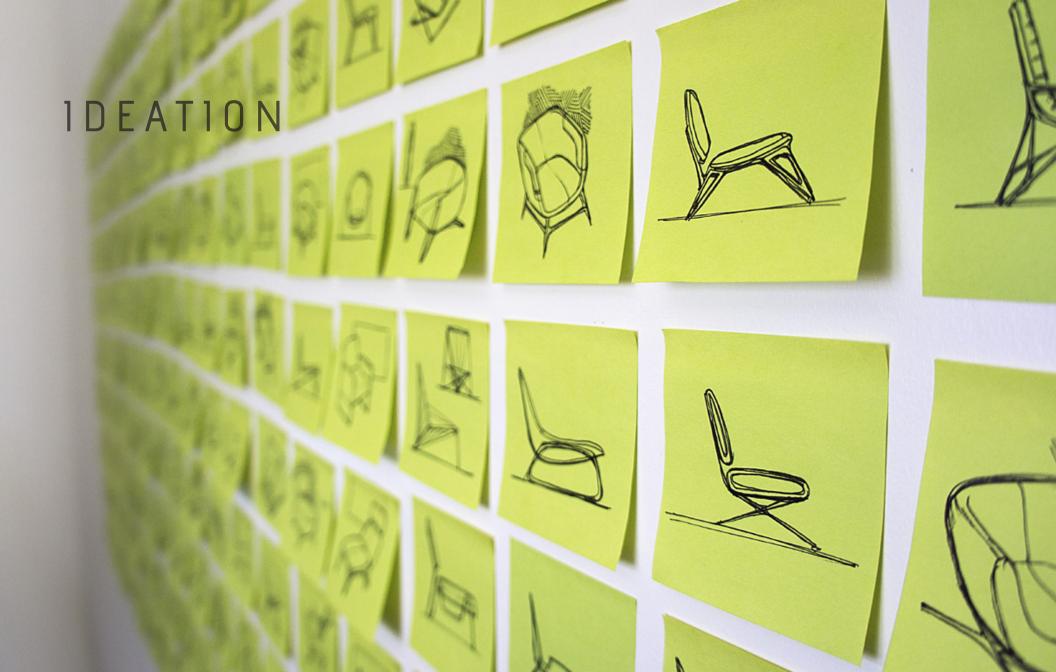




# **INSPIRATION**

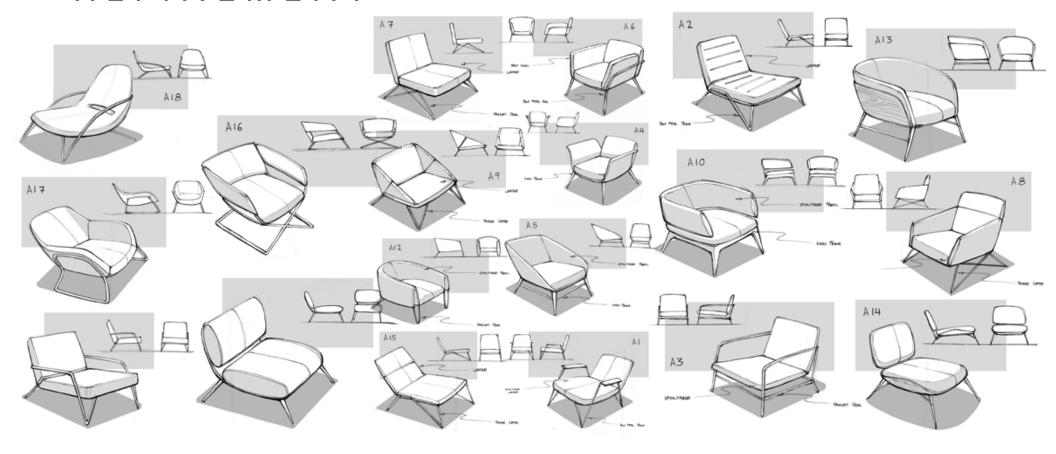


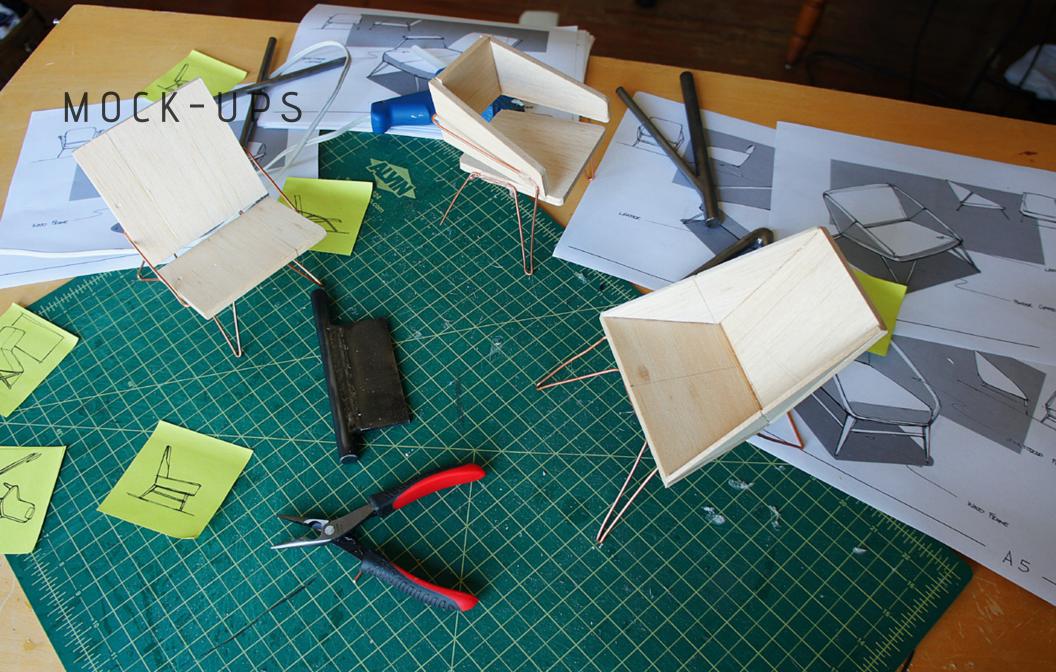
considered transitions quality materials intriguing stance refined details





# REFINEMENT



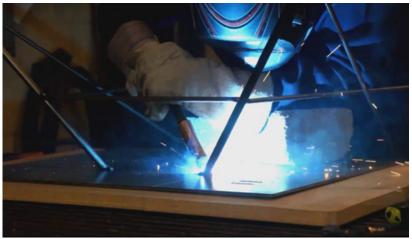




# MAKING 1T





























an urban lifestyle brand inspired by hip hop culture



They said my future was dark, see me now?

Just look around, I'm beaming

They used to talk, when I wasn't around

You see me now? I'm beaming

- Lupe Fiasco







## TIMEPIECE

Housed in an aerospace grade titanium shell, the IMMATURE timepiece is designed to not only look great at any occassion but also withstand the most brutal punishment. Driven by an expertly crafted Swiss mechanism, the timepiece is accurate to with 1/10 of a second over one year.









## HEADPHONES

Studio reference headphone: designed for the most decerning hip hop aficiando. A comfortable fit, deep bass, clear mids, and crisp highs, make the IMMATURI headphones an easy choice.







mini projects / sketchbook



sketch/stitch explorations completed in an afternoon



## NIXON 8

- naut (suffix)

Etymology: From Ancient Greek (naútēs, "sailor")

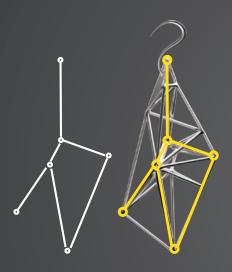
Forms nouns meaning a voyager, farer, or tripper





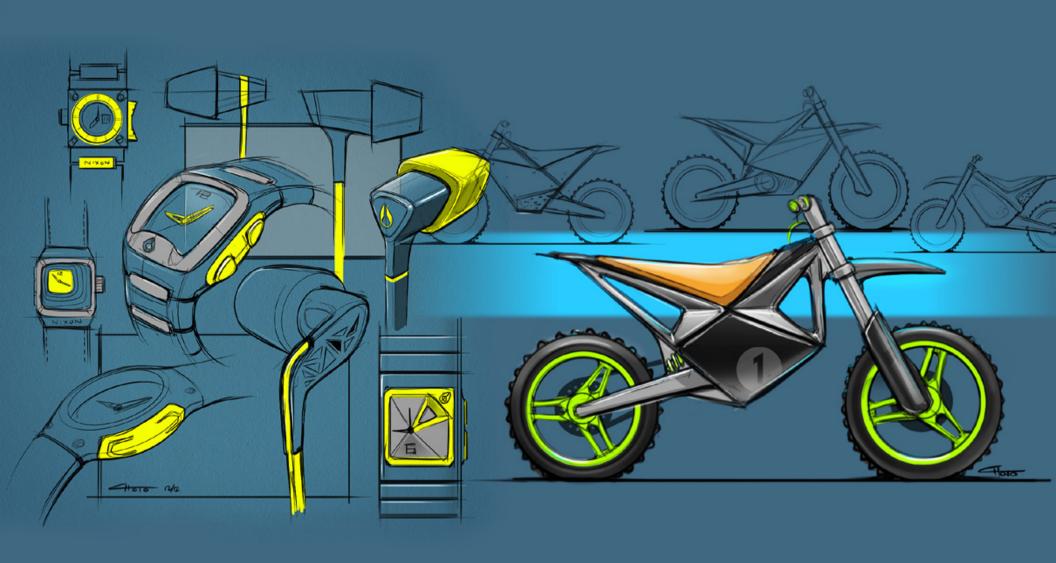


## CONSTELLATIONS



Reinterpreting 2 dimensional constellation forms into 3 dimensional printed pieces of jewelry













thank you for your consideration

please visit http://www.coroflot.com/choto to see more work



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