

# Vulpes Team 2

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## Project Team Members

1. **Summary /Conclusion Writer & Overall Editor:** Luan Dunlap
  2. **Market Researcher:** Noah Brutcher
  3. **Product Designer:** Jamison Eng
  4. **Devil's Advocate/Critic/"Jack of all Trades":** Luke Edelmann
- **Note:** *If you only have 3 members, then everyone will need to assume a part of the role of "Devil's Advocate/Critic/Jack of All Trades"*
  - **If you have 5 members, there can be TWO people in the "Devil's Advocate/Critic/Jack of All Trades" role**
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## 1. Executive Summary (Overview)

It's an intimidating thing, for a new runner. They think they're ready for a professional upgrade to their gear- discontented with their current shoes that blister, or just aren't up to snuff for longer durations. The next step is actually looking for some nice, quality gear.. with which they'll be met with cascades of complicated- and, crucially, expensive- wear.

Worse, they realise they now need to plan ahead for future months. The nice shoe they want for its cooling will be downright treacherous in the winter; and all the cost be put aside until next summer. Even if they think the shoe might dull out in time, and need to be replaced- if they live somewhere with more temperamental weather, there's simply no option to wait until winter to get the heat-padded shoes.

So, they have to make a choice: their interest and fitness; or the bank.

This is where *Vulpes* comes in.

Inspired by the fox's ability to change coats in the winter and summer, *Vulpes* wear is equally as adaptable. Whether a new runner needing relief from several near-identical products, or current runners, who might want to pack light, and not worry about a sudden cold snap- *Vulpes*' tech is for them.



No longer does money and closet space be the primary concern of runners. Stress about checking the weather app for what to just put on one's feet fades away. Runners of all kinds can focus on what's important: running.



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## 2. Market Research and Need Justification

Current Unmet needs that this solves: One device that meets all the needs of runners (motivation, increased running ability, distance tracker, running shoes, etc.) with only one cheaper purchase and not multiple purchases.

Current market solutions: Fitness apps (Strava, Nike Run Club, MapMyRun, etc), Wearable technology like smartwatches.

Data shows that quality running shoes cost \$120-180 and high end shoes \$200-300+. Even so, runners still have to replace their shoes the more they use them, so they choose the more expensive option so they have to replace it less. Entry level watches can cost \$150-250, which most runners, this is excellent for. But for the elite athletes, top level watches that do much more cost anywhere from \$300-1000. Not to mention other sensors for heart rate or foot dynamics, which is another \$50-100. And while training apps can be free, premium subscriptions can cost \$60-120 a year.

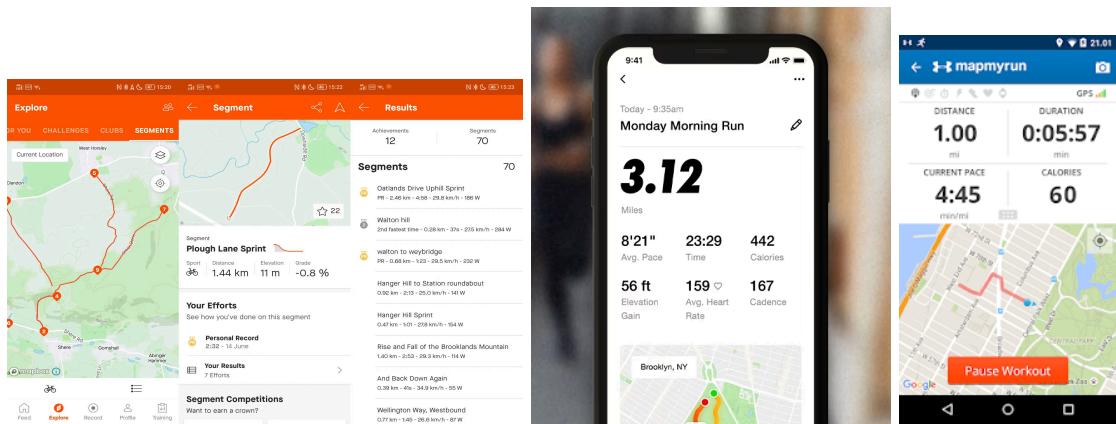
Regarding training apps, they are very effective in regards to helping runners get better results.

Strava has 332,000 ratings for a 4.8/5 star rating. Nike Run Club has 407,000 ratings with a 4.8/5 star rating. And Map My Run has 719,000 ratings with 4.8/5 star rating. The only issue is that the majority of these running apps have in-app premium purchases for better features.

As for the technology used in our Vulpes shoes: they will fuse two existing technologies, that will both heat and cool based on the body's temperature as well as regulating the sweat produced from the feet of the user. The company SoleCooler has created insoles that relies on thermodynamics for its effects. It uses the principles of the Carnot cycle, which is what is used in air conditioners. However, instead of chemicals, it uses *air* as the fluid. When the user walks or in this case runs, "their feet naturally heat up the air-infused cushion cells of the insoles, and the material cools itself down as soon as it feels the change in temperature." The company 37.5® has created technology that is implemented in their insoles, socks, and other products that actively removes the heat and humidity that produces sweat. According to 37.5®, "*Footwear with 37.5 Technology can reduce the temperature around your foot by up to 8°F and reduce heat fluctuation by 50% compared to the same footwear without 37.5 Technology.*"

Our shoes, Vulpes, will have a fused technology using the similar principles as both of these technologies, but with different designs that are unique to our brand. These shoes will cost \$300, as well as when the shoes are bought, they will come with a free premium subscription to our companion app with the shoes. Also, when your shoes start to wear out after a year or two, if you return the shoes to the stores, either online or in-person, you will get 15% off your next purchase of Vulpes. These shoes can be used as regular wear as well, as they will be comfortable for everyday activities. This purchase overall saves the consumer a couple hundred dollars, while also having better technology than other shoe brands.

#### Screenshots of Competitor apps:



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(Strava), (Nike Run Club), (MapMyRun),



Current Technology by *SoleCooler*

### 3. Product Description

#### App

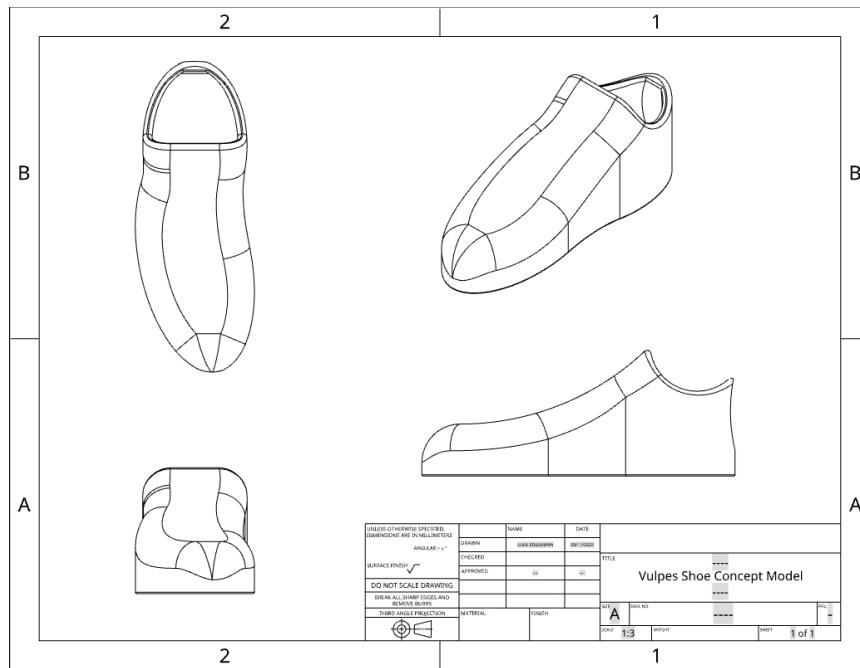
- Basic Features
  - Utilizes location via google maps
  - Tracks weather
  - Prompts user to sync to watch
  - Track initial speeds in order to determine paces for improvement
  - Vulpes Currency
    - Can be obtained by watching ads
- Premium Features
  - Premium features come included with purchase of Vulpes shoe
  - Create your own run playlist (content creation)
    - Record yourself talking
      - Set it so when you reach certain mileages or distances, that audio plays
    - Charge for playlist
      - Creators can choose to make their playlist paid or free
- Leaderboards
  - Daily highest mileage
  - Monthly highest mileage
    - Can get a free Vulpes shoe if 1st place
      - Cannot be stacked with 30% coupon reward
    - 30% discount on Vulpes products for those on top 10
- Clubs
  - Up to 10 members
  - Participate in club tournaments (comprised of 100 clubs)
    - End of each month, the club with highest mileage gets each club member a 15% discount on a Vulpes product

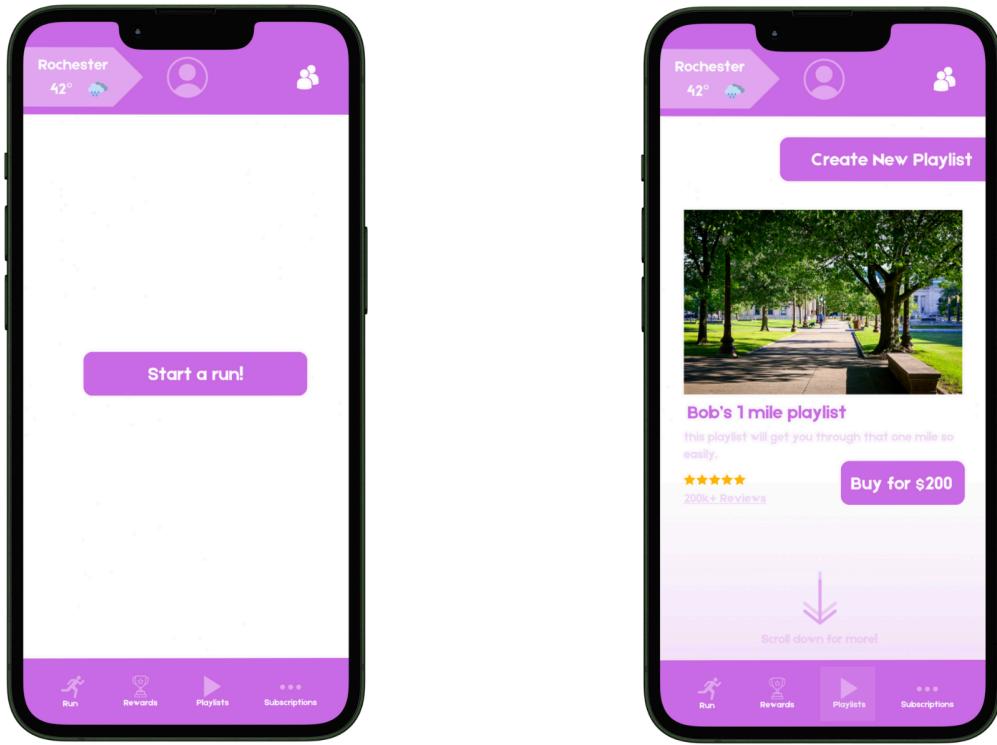
## Watch

- Tracks calorie burning
- Tracks heart rate
- Tracks current elevation

## Shoe Core Features

- Double Sided Insole (Heat side and cooling side)
  - When user runs/walks in the shoes, the air-infused cells of the insole inside the shoe heats up when compressed
    - As air releases following compression, this produces the “cooling” effect which can cause it to cool up to 8 degrees
  - When put on the heating side, the shoe uses user activity to heat the user’s foot
    - Recommendation by app for which side to be in-use.





#### **Distinction:**

What makes *Vulpes* different is its ability to adapt according to outside temperatures and its functionality for both students and athletes. This shoe offers the combination of both heating and cooling, unlike other current shoe brands that offer only one or the other. Since the heating and cooling feature is a part of the insole of the shoe, which does not require external electronics, the shoe is lighter and cheaper than other products that use heating technology with electronics. This also means runners needn't worry about recharging their shoe before a run, or worrying about it draining mid-exercise. Any concerns about safety that batteries naturally draw also become irrelevant.

Furthermore, the product is offered in a bundle, which includes features of a paid subscription for free, as well as a watch to help monitor the athlete as they exercise. As some other companion apps such as *Strava* and *Mapmyruns* include premium subscriptions, *Vulpes* offers an all in one bundle reducing the cost for the athlete and stress, not having to worry about finding the perfect combination of an app that pairs well with their electronics.

## **4. Possible Issues and Counterarguments**

*Is this safe to wear? How can it be ensured that it won't freeze- or, worse, burn my feet?*

Due to the technology the shoe uses for heating and cooling, the shoe will naturally adapt to the temperature around it preventing the issue of overheating or overcooling. And since this technology does not use any battery or electronics, it is very safe and user-friendly. Compared to potential competitors, where storing them improperly may cause legitimate damage to the user's foot. We value this safety above all, because each user's body is why they are runners!

*Is this necessary? What's the point?*

There are wearable accessories that provide cooling or warmth. However, no accessory is meant specifically for both heating and cooling, making our product unique and efficient.

*Triple-digits?! Isn't this absurd, considering the price of shoes you can get from any store?*

The cost is reasonable considering how much runners would typically pay for their equipment. While we certainly aspire to get new runners into getting inexpensive shoes, that would come at the cost of our quality. Our goal is for every runner to have reasonably-priced shoes.

*Why not just pack thicker or thinner socks? Why would I need a whole product dedicated to this?*

No professional shoe can give a 'one-size-fits-all-sock-sizes'. It's not recommended to wear too thick socks with shoes that already fit snugly- as this can cause damage to a runner's feet over time. This ensures you'll be temperature-regulated *and* be healthy long-term.

*What about privacy? Having a companion app that tracks anything seems suspicious.*

We will be sure to include standard account safety features to ensure that our user's data is secure. Turning off certain tracking settings is available, transparent, and upfront. We will also offer options that allow data to just be stored on-device, rather than on our servers.

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## 5. Conclusion and Recommendations

Big picture, Vulpes helps more than just those already exercising. Vulpes has carved a way for less financial risk to start running, while being immediately more comfortable- something that's a hard sell. This contributes to society people who are more willing to *try* running: resulting in a healthier society.

For our users, it's clear how it will help their personal goals. Having a built-in reward to simply running being *comfortable* will inspire them to reach new heights.

As for our investors.. The technology already exists. There won't be need for huge expensive research teams figuring out exactly how to work it out. Instead, efforts and money will be spent toward how to *apply* it best; for advertising, and developing our app- all things that will only draw in more customers.

Don't think it ends at just shoes, either. This same technology can easily be expanded to athletic-wear outside of runners: growth for cyclists, bodybuilders, or any other athletic endeavour. The growth of *Vulpes* is far more than just what you put into it.



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## 6. Appendix

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