Intro - FE!N

Product Pitch

Alex: Product Intro

Picture your 9 year old self. That's me. You're biking around with your friends, weaving through your neighborhood, wind rushing past your face, feeling like you're on top of the world. (pause) Then all of a sudden, your bike skids on gravel, and you're on the ground, scraped up and shaken. You don't have a phone to call for help, so you're left all alone to walk your bike home.

For parents, that's not just a scrape—it's a moment of helplessness that they never want their child to face.

In the time you spend watching tonight's presentations, nearly 125 children will have been treated in emergency rooms for bike-related injuries in the US alone. That totals 365 thousand annually.

Many safety devices for riders exist, and they rely on smartphones to send emergency alerts. However, nearly half of all children under 11 don't own smartphones.

And so this leaves us with a gap. A gap where we can bridge safety and independence.

That's why we created *Contact*!

Contact is a helmet attachment for kids and a smartphone app for parents. The device automatically detects crashes and quickly notifies parents through the app.

Alex: Product Demo

Let's see *Contact* in action.

**Live camera pans towards test dummy setup* SLIDE AUDIO 5 sec., ipad 10 sec*

If you look next to me, you'll see Timmy happily biking around his neighborhood. But watch out! Timmy's about to hit a curb!

Amir Causes Crash on Stage

"Crash has been detected, alerting emergency contacts in 5, 4, 3, 2, 1."

"Emergency contacts notified"

Live camera pans towards iPad

A crash was detected and a countdown was completed.

iPad shows notif on live feed

Mom clicks into app

The parent was alerted of the crash location and severity, and they can decide if they would like to call 911 or send their child a message that help is on the way.

**Mom presses a button in app to respond* LIVE CAM 5 sec*

The parent can easily get directions to their child at the press of a button.

Mom presses directions button in app

iPad shows maps directions

Live camera pans towards Amir

We anticipate that *Contact* may detect false emergencies. That's why the device plays that countdown after a crash has been detected. If the child presses the top button during the countdown, their parent will be notified that a crash was detected but their child is ok.

It's also possible for children to encounter non-crash emergencies. In that case,

Amir presses the button on Contact while facing backwards

the child can press and hold the button on *Contact*

**Live camera pans towards iPad* SLIDE 5 SEC*

to send an emergency alert to their parents.

iPad shows notif on live feed

By minimizing the time between accident and response, *Contact* is simple, reliable, and life-saving.

Yohan: Tech (highlighted = click)

Now that we've seen it in action, let's break down what makes Contact work.

With Flyby: Our lightweight enclosure is what houses all of our electronics. As you can see with every one of these prototype iterations, we've improved our design and shrunk our components. Contact is packed with electronics, yet our final form factor is small ans discrete.

Without Flyby: Our lightweight enclosure is what houses all of our electronics. With every prototype iteration, we've improved on our design and shrunk our components. Contact is packed with electronics, yet our final form factor is extremely compact.

We've designed a simple user interface, consisting of a button for the child to call for help, or to cancel a crash alert and let their parents know they're OK.

Now let's look at the hardware and software of Contact.

Inside the device are two sensors, an accelerometer, and a gyroscope. The microcontroller processes these signals for head-sensing and crash detection.

Amir bobs his head around imitating biking/walking

Our head-sensing algorithm detects when the helmet is upright and naturally wobbling, indicating that it's being worn.

Amir places helmet on the ground/table

If no head is detected, the device enters sleep mode, preventing false crash alerts and conserving battery – so, neither you nor your child have to remember to turn on and off the device.

Another crucial part of Contact is the crash detection algorithm. Using these same sensors, we calculate the Abbreviated Injury Scale, or AIS. This standard is used to assess the severity of impacts, and is trusted by the automotive, medical, and sports industries. These scores let us classify crashes as 'minor,' 'moderate,' or 'serious', which is what Contact sends to parents.

In the demo you just saw, the crash was classified as ‘moderate’— Timmy might be fine, but after a crash like that, he could really use his parent’s attention and perhaps even medical help.

Next, is our wireless communication scheme.

Contact works without a smartphone, but still runs on the LTE network with a built-in SIM card for nation-wide coverage. When your child is riding around town, you can expect an update of their location every 30 seconds. And when a crash is detected, Contact will notify you right away.

Finally, the app ties everything together. It allows parents to receive crash alerts, track their child’s location, and stay updated on their safety.

With Contact, parents are never out of the loop.

Blake: Business

Now that you've seen how our product works, let's talk about how we plan to introduce Contact to the market.

Our target consumers are parents with children who are between the ages of 7 and 12 and regularly bike, skateboard, or scooter while unsupervised.

We've collected results from user feedback and testing with over 150 kids, parents, and bike store managers. This helped us to design our intentional app features, sleek aesthetics, and kid-friendly usability.

To talk about the size of the market, there are approximately 24 million 7-12-year-olds in the U.S. alone. Roughly 50% of them bike, skateboard, scooter on a regular basis. Based on our market research and user interviews with parents, we have made a conservative estimate of capturing 30% of this remaining market, which equates to 3.5 million potential customers.

To break into this market, we will focus on bike-oriented communities such as school programs and outdoor youth groups. We plan to produce and sell 5,000 units in our first year, an aggressive yet attainable goal.

We will sell Contact at a retail price of $75 with a profit margin of 43%. This price will cover our unit production, labor, marketing, and cellular costs for a year. Users will also have the opportunity to extend their use of Contact for a small additional cost to cover the annual cellular fee.

With Contact, parents gain peace of mind, knowing they'll be alerted if their child is ever in danger, while kids can explore their world with confidence. We're creating a safer, more connected, more accessible biking experience for families everywhere.

Yohan

Because parents shouldn't be forced to choose between their child's safety and their freedom.

Alex

Together, let's empower a new generation of confident, independent riders. Thank you.