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FALL 2025

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PROBLEM SPACE

Every year, around **24,000 babies** are stillborn in the United States, and most growth-related risks go **undetected** until it is too late.

Earlier insight can prevent losses, yet many pregnancies go unmonitored when it matters most.



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THE CHALLENGE

HOW MIGHT WE . . .

identify **unmet needs** in **maternal health monitoring** and design a product that is valuable, trusted, and aligned with how mothers **want to experience care?**



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RESEARCH & SYNTHESIS



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RESEARCH METHODOLOGY

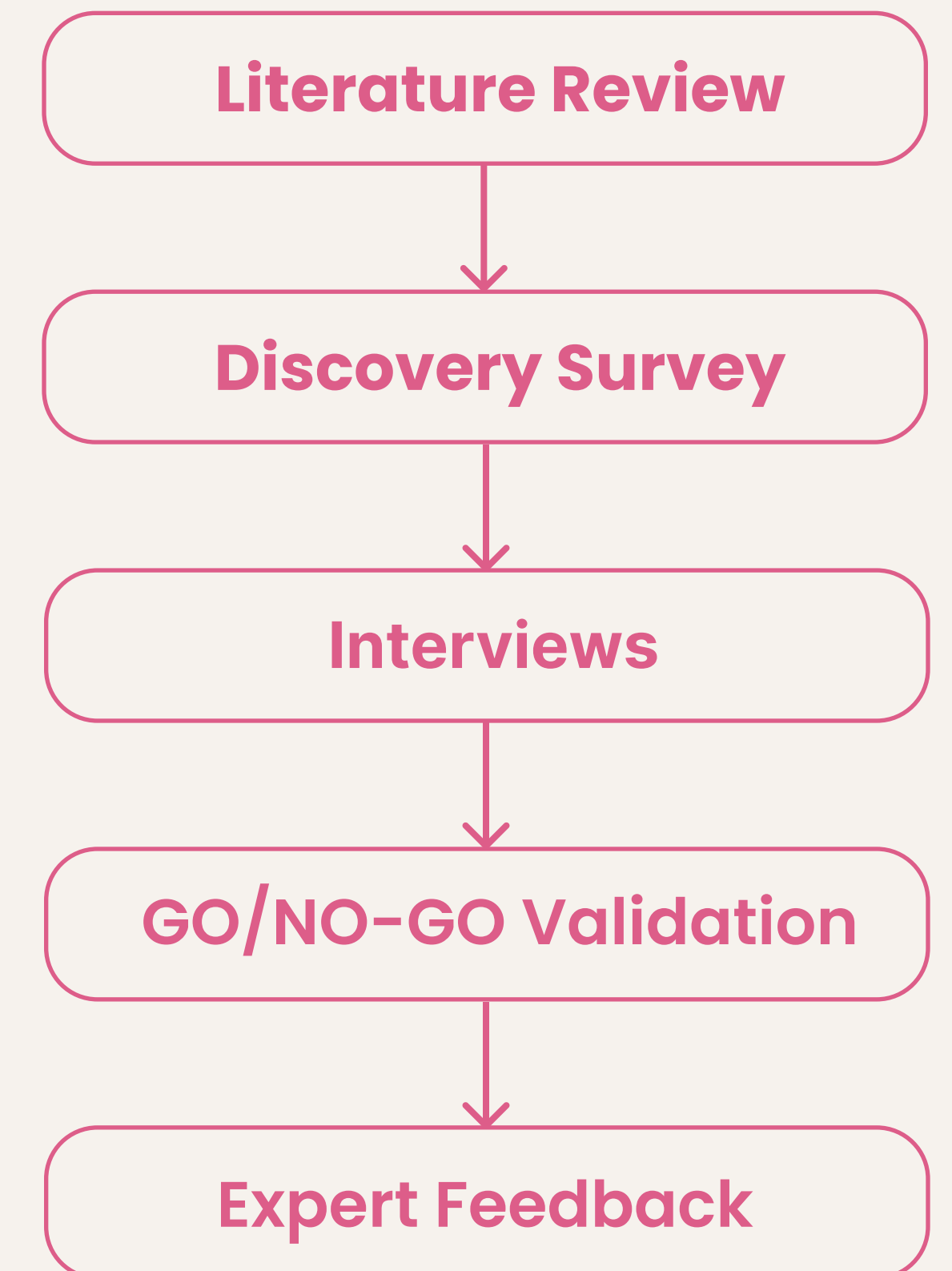
GOAL

Identify unmet needs and evaluate GO/NO-GO viability, including whether a wearable is preferred.

TARGET GROUPS



RESEARCH FLOW



COMPETITIVE ANALYSIS

10

Competitive Audits

Reliable Sensor Data

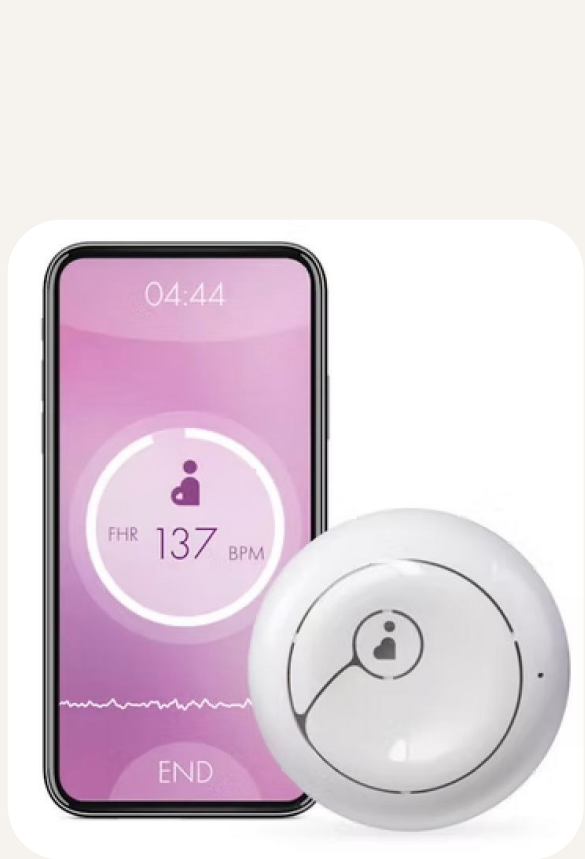
At-Home Access

Comfort-Focused Designs

Poor Data Context

Complex/Inconsistent Use

Limited Emotional Support



HeraBeat



NuvoCares Invu



Pulsenmore



FloPatch



Bloomlife Patch



VScan



Butterfly Ultrasound



TempDrop



SoftSonics Patch



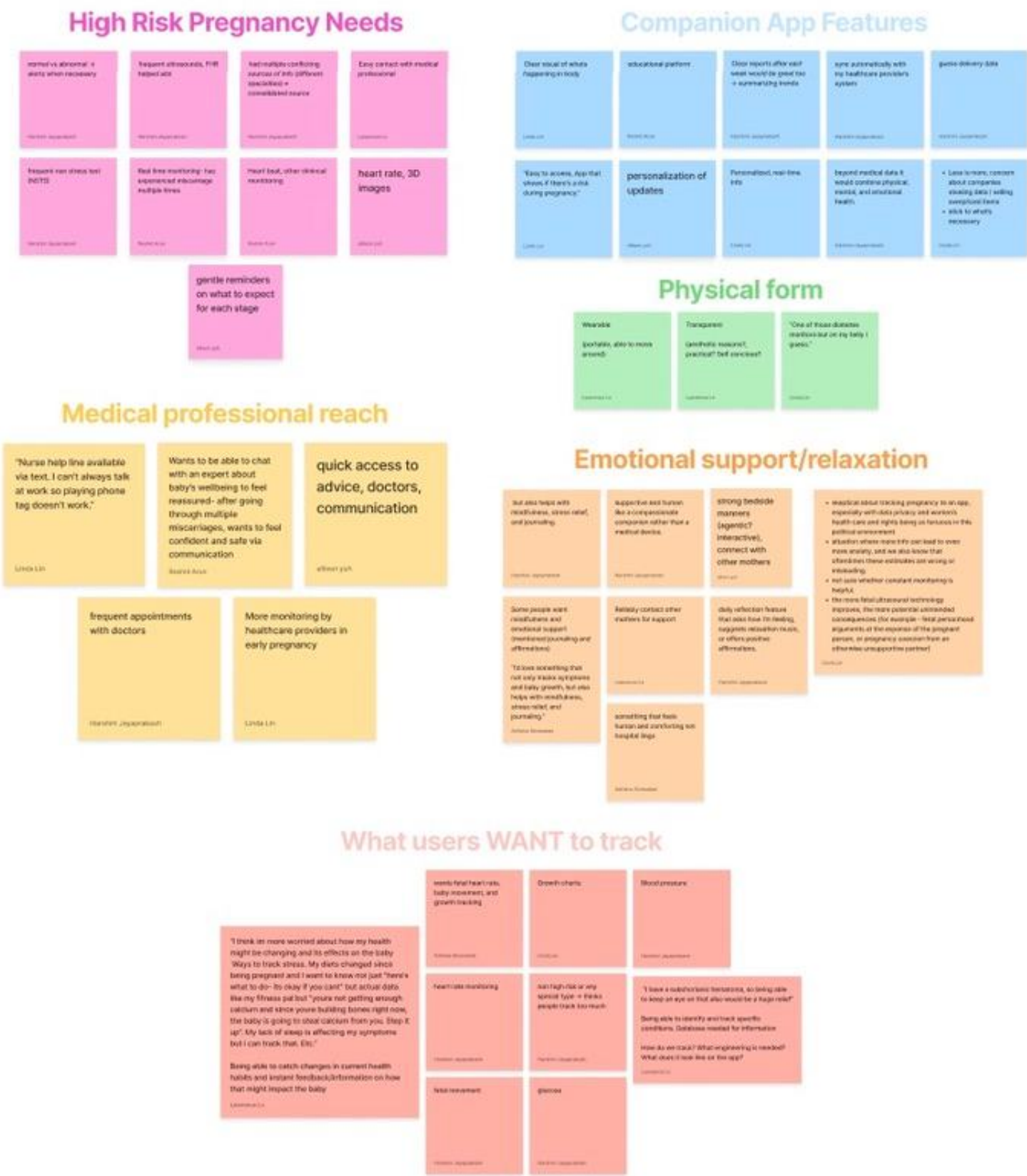
3D Duchess Imaging

CUSTOMER DISCOVERY RESEARCH

84
Survey Responses

31
Discovery Interviews

Affinity Mapping



KEY INSIGHTS

- 1 Mothers feel most anxious **between appointments** and lack clarity on **what is normal**.
- 2 **Data without context** increases stress rather than reducing it.

Users need
interpretable insights
to feel informed and
reduce anxiety.

KEY INSIGHTS

- 3 Mothers trust their **doctors above** all other sources.

Users need **shareable**
continuous insights, to
support NOT replace their
providers.

KEY INSIGHTS

- ④ Bulky belts and handheld ultrasound devices feel **impractical** or intimidating.
- ⑤ Expected price ranges were low, but mothers ultimately **valued peace of mind** over cost.

Users need a **comfortable, approachable** wearable that feels worth the cost.

SOLUTION

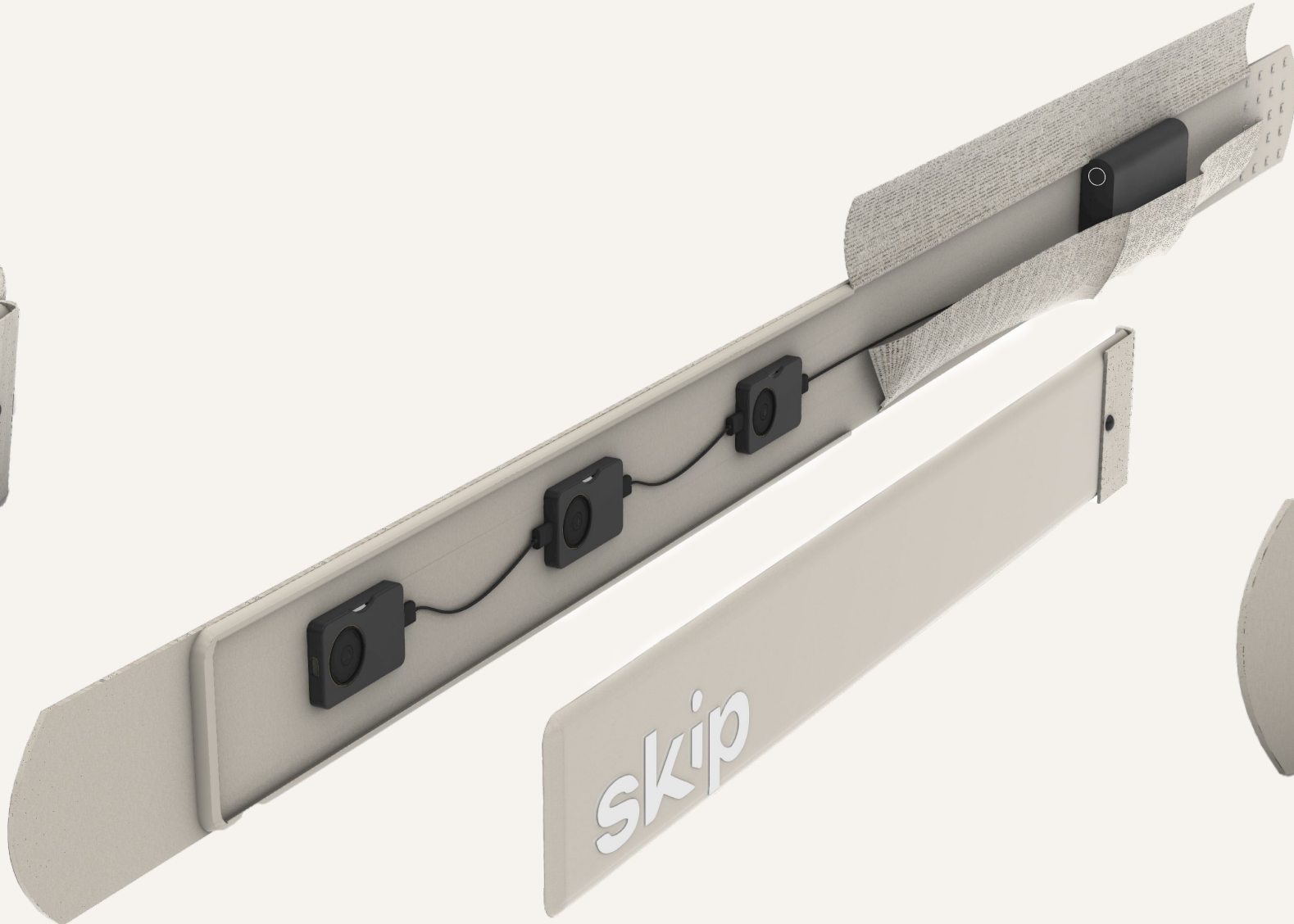


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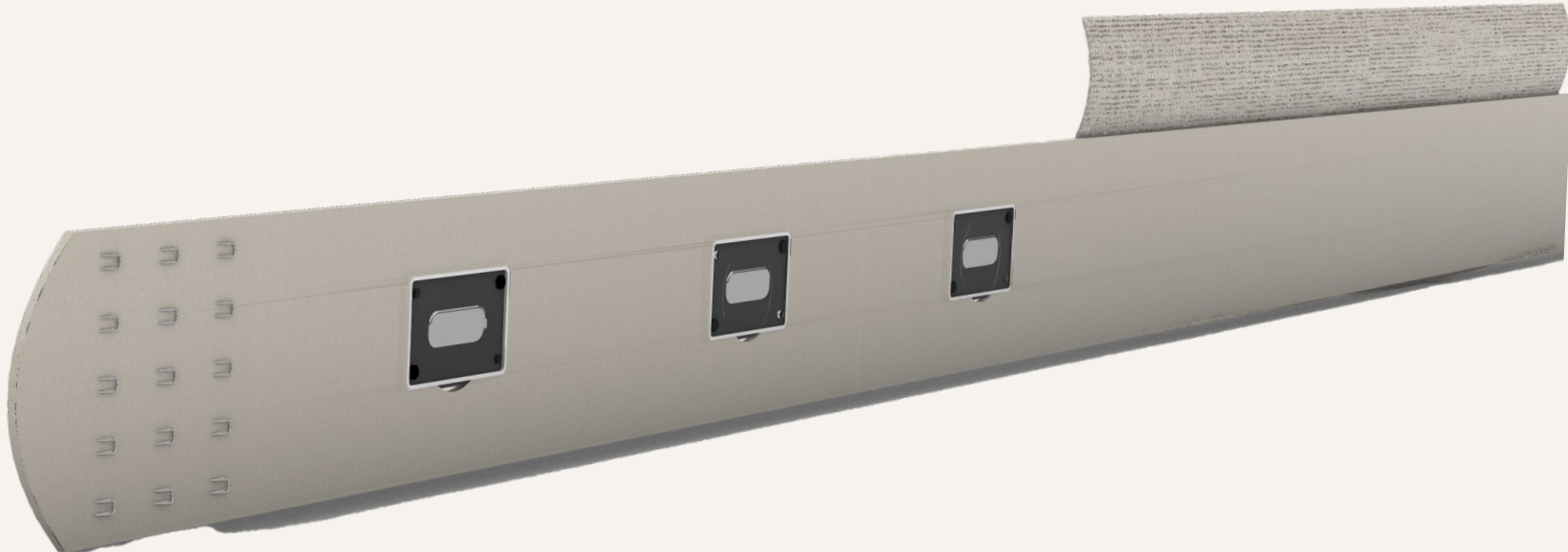
WEARABLE 3D MOCKUPS



FULL VIEW

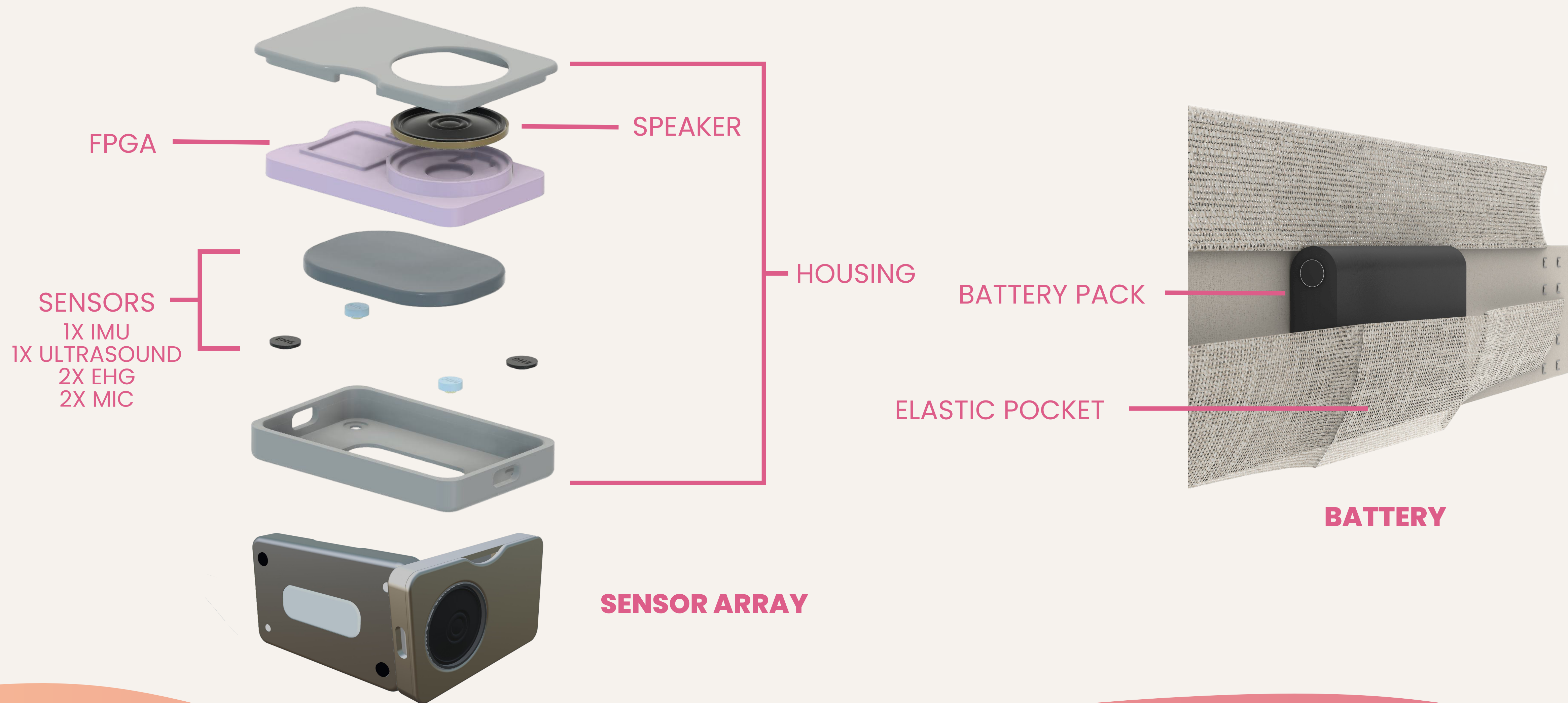


FRONT VIEW



BACK VIEW

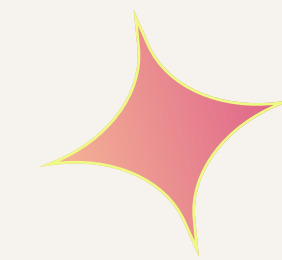
WEARABLE 3D MOCKUPS



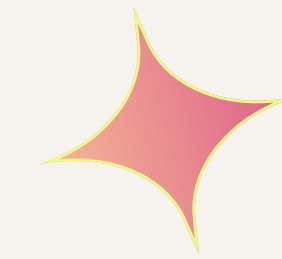
STARDUST COMPANION APP



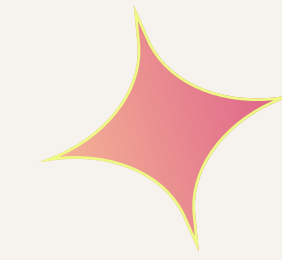
Companion app to visualize real-time data from the wearable and translate what it means for their pregnancy.



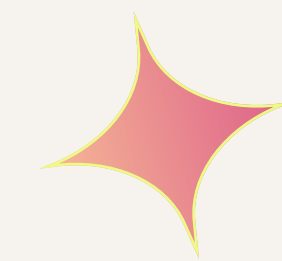
Wearable onboarding



Daily snapshot

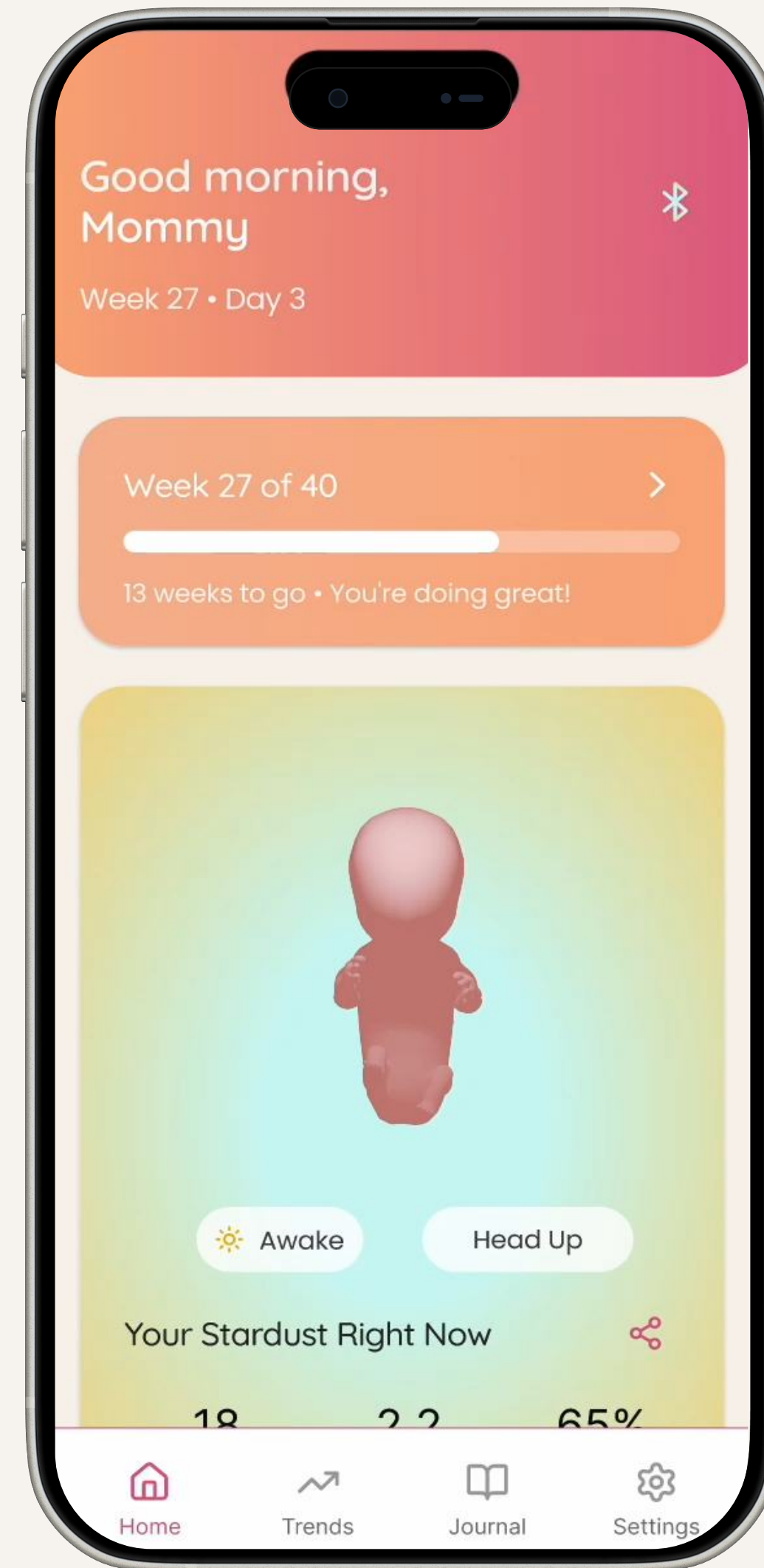


Ultrasound visualizer



Pregnancy roadmap

STARDUST APP : TRENDS



- ✦ Movement tracking
- ✦ Sleep/Wake pattern
- ✦ Position history
- ✦ Baby's growth trajectory

STARDUST APP : ALERTS

Battery Alerts



Stardust Monitoring Belt

15m ago

Sarah – Your Stardust Belt Is Fully Charged



Stardust Monitoring Belt

15m ago

Sarah – Your Stardust Belt Needs To Be Charged Soon

Day + Overnight Recaps



Stardust

15m ago

Good morning Mommy! Your overnight activity is ready to review.



Stardust

15m ago

Today's recap and your ultrasound session are ready to view in the app.

Monitoring Alerts



Stardust

15m ago

Session complete! Things look consistent with how your baby's been doing lately.



Stardust

15m ago

We noticed a small shift from your usual pattern. Open the app to learn more.



Stardust

15m ago

We'd like your provider to review today's data. Please contact your care team as soon as possible.

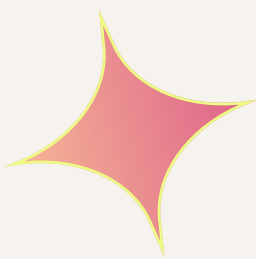
Connection Alerts



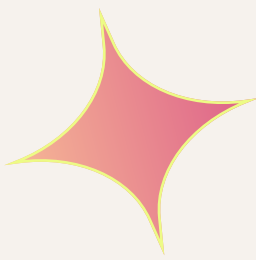
Stardust

15m ago

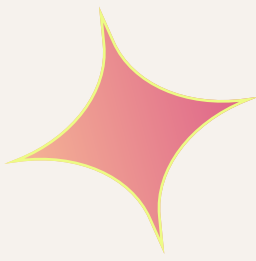
It looks like your belt isn't linked at the moment. Open the app to reconnect.



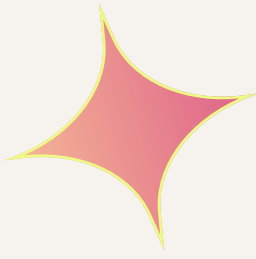
Battery alerts



3 tier monitoring alerts



Belt connectivity alerts



Day and night activity summaries



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