DIAFIT:

Designing Customizable Wearables for Type 1 Diabetes Monitoring

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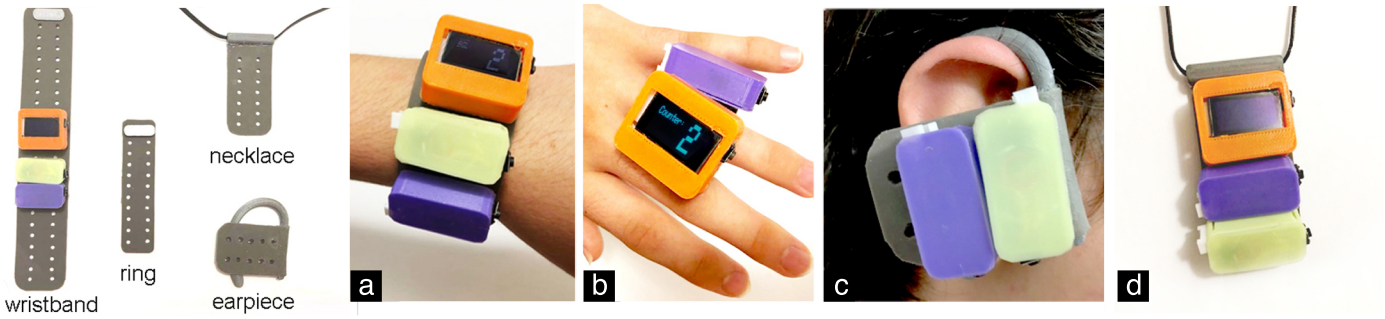
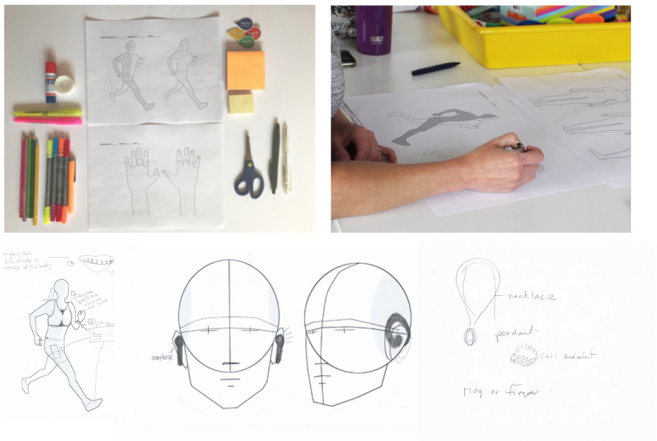
We explored people's responses to customizing glucose monitors and prototyped DiaFit, a proof-of-concept toolkit that can help people to build varied monitor designs.



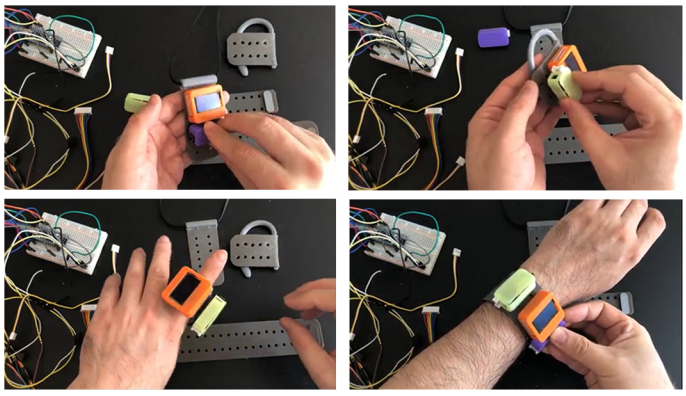
Diafit includes accessories and feedback modules for building different styles of glucose monitors such as: (a) bracelet monitor, (b) ring monitor, (c) earpiece monitor and (d) necklace monitor.

1. PROCESS



We worked with people who have Type1 Diabetes and learned about their experiences with current glucose monitors and identified their challenges with physical product design.

2. DESIGN and EVALUATION



Using modular design as the basis, DiaFit allows people to assemble different combinations of glucose monitors using accessories (e.g., monitor as a bracelet) and feedback modules (e.g., change in glucose level to be felt via vibration and visual display).

3. TAKEAWAYS and FUTURE WORK

Participants developed various design options using DiaFit and expressed an interest for participating in the design and development of health monitoring devices. Our early research shows that our participants were enthusiastic about customization as it enables them to create devices that better suit their varied contexts of use. Going forward we are interested in improving the design of our toolkit and extend it to provide better support for authoring custom products.

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