


Non-invasive wearable glucose sensor using microwaves

Visualizes daily profile of glucose level and helps identify better diet and exercise habits to prevent blood sugar spikes
#Well-being, Human Capital Management

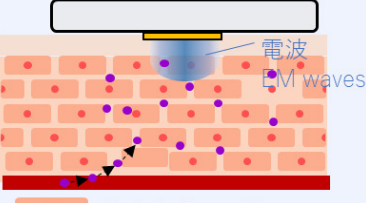
電波を用いたウェアラブルグルコースセンシング
Non-invasive wearable glucose sensor using microwaves



センサデバイス Device

- 穿刺不要 Non-invasive
- 消耗品不要 No medical waste

センサ Device

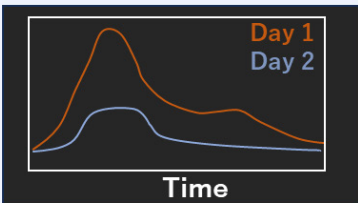


皮膚細胞・グルコース
Skin cells Glucose

ソリューション Solution

- 日々の食事/運動習慣によるグルコース値の変化を可視化

Visualizes daily profile of glucose level and helps identify better diet and exercise habits.



///Technical Issue

To measure the trends of glucose levels inside the body, a needle needs to be used, and a disposable sensor must be placed inside the body, both of which creates a significant burden on the user.

---Technology

- Unique sensing technique that measures changes in the glucose concentration of interstitial fluid in the skin by using microwaves.
- By miniaturizing the sensor device, the prototype is the same size as a smart watch.

---Applicable Business

Commercialization of a service within 3-5 years that records daily glucose level changes and compares the effects of diet and exercise.

///Research Goal

Achieve a healthcare solution that recommends personalized diet and exercise solutions for lowering the risk of diabetes without inconvenience or stress to the user.

---Novelty

- Measure the trends of glucose levels noninvasively.
- No need for disposable devices, allowing for long-term measurement of glucose trends.