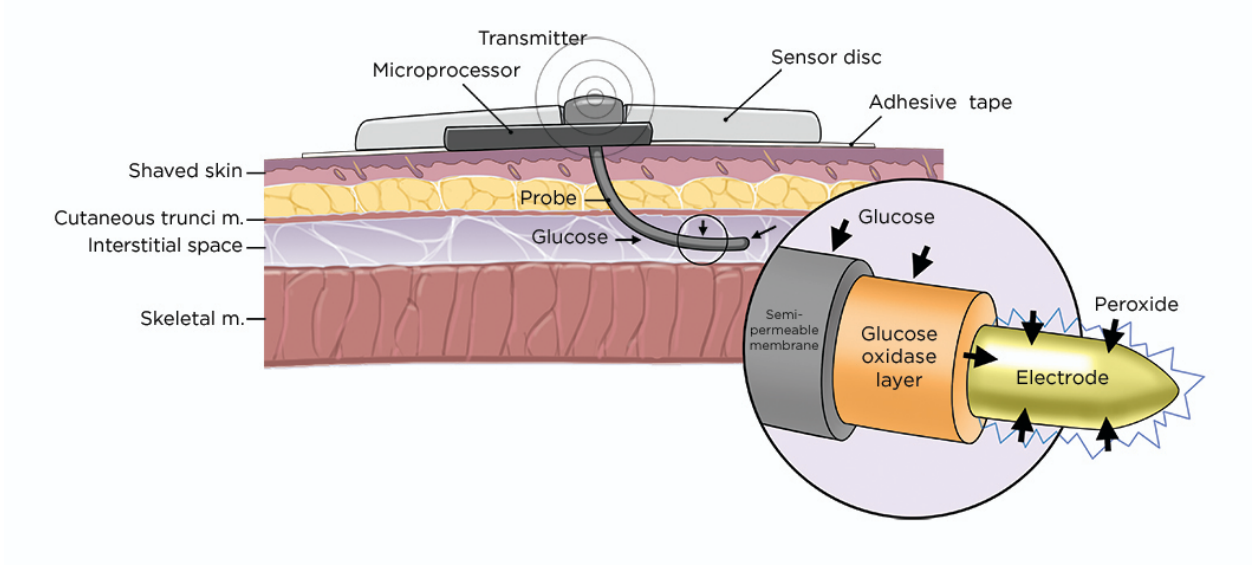
Create the first concept

Wearable Glucose Monitor

Research about this use case.

With this device patients will be able to monitor their blood glucose level by using a smartwatch and smartphone. The sensor will collect data and send it to the phone and using the app phone will update it to the cloud. Doctors will be able to access the cloud to check the status of the patient.

What are the main elements (people and devices) of the system?



The monitoring device will have a tiny needle that will be inserted inside the skin. The needle consists of multiple layers , these layers work as a protection for the needle as the needle will remain inserted for a longer period of time .The needle contains an enzyme called glucose oxidase. This enzyme converts the glucose in the body into hydrogen peroxide. The hydrogen peroxide then reacts with the metals inside the sensor creating electrical charge which travels to a

computer chip where it is then translated into blood glucose levels. Depending on the electrical charge different glucose data can be found. The device will have a button cell battery as it consumes very low power to transmit the data. The battery can be replaced after the battery is discharged. If the battery is low it will show an alert sign to replace the battery.

Requirements diagram.