Coorducate

An accessibility design to access the problem better!

What is disability?

According to the World Health Organization, disability has three dimensions:

- Impairment in a person's body structure or function, or mental functioning; examples of impairments include loss of a limb, loss of vision or memory loss.
- Activity limitation, such as difficulty seeing, hearing, walking, or problem solving.
- Participation restrictions in normal daily activities, such as working, engaging in social and recreational activities, and obtaining health care and preventive services.

Accessibility? More than just usable?

Accessibility is the concept of whether a product or service can be used by everyone—however they encounter it.

Theoretically, this means that **usability includes accessibility**, since a product that is inaccessible is also unusable to someone with a disability; practically, however, usability tends not to specifically focus on the user experience of people with disabilities. Accessibility, on the other hand, is concerned with whether all users are able to access an **equivalent user experience**, however they encounter a product or service (e.g., using assistive devices). Unlike usability, accessibility focuses on people with specific needs to use the design/product.

- Interaction Design Foundation

Normalising.... Accessibility or Disability?

Cure vs. Communication!

Mental disabilities are unique to every individual in every situation and the major problem with this disability is being able to effectively communicate with the immediate people.

Instead of having the people to feel they need to do extra to feel included, this solution hopes to normalise the effects of mental disabilities.

- This article communicates the theme and this spirit in such a great way!

Mental Disability? Temporary?

Before we jump into accessibility solutions for mental disabilities, let's clarify and understand "temporary mental disability" as valid term and concept.

Mental disorders (MDs) affect almost 1 in 4 adults at some point during their lifetime, and coupled with substance use disorders are the fifth leading cause of disability adjusted life years worldwide. People with these disorders often use the Web as an informational resource, platform for convenient self-directed treatment, and a means for many other kinds of support. And the loved ones aren't brought in the loop until much later.

-reference

Problem?

Even though mental health is getting more traction in terms of an issue that needs to be addressed and normalised, it is still very difficult to come to terms with first the problem then actually communicate.

It is an entirely different struggle to ask or use accessibility solutions that exist. The lack of effective communication and when it comes to children and teenagers, the identification is not an easy task.

Solution? Making the problem more accessible!

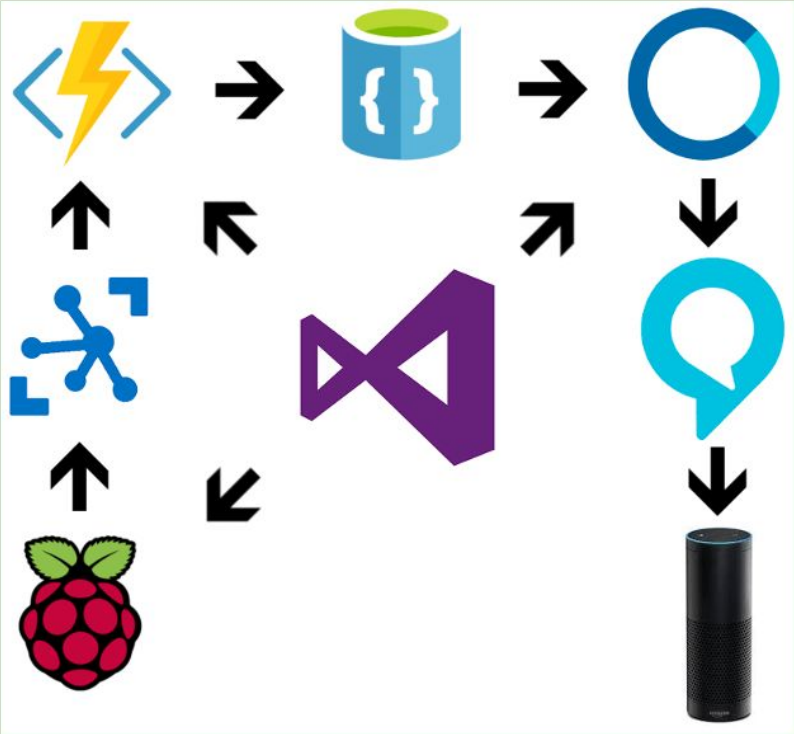
Giving people who care about you but more importantly, giving you better access to the problem and helping you identify your tendencies and triggers followed by letting you choose how you want the situation dealt with!

Hardware:
ESP32 (preferably nrf52 chip)
To add after final design: Flex Sensor, pressure sensor, accelerometer, etc as per user customisation

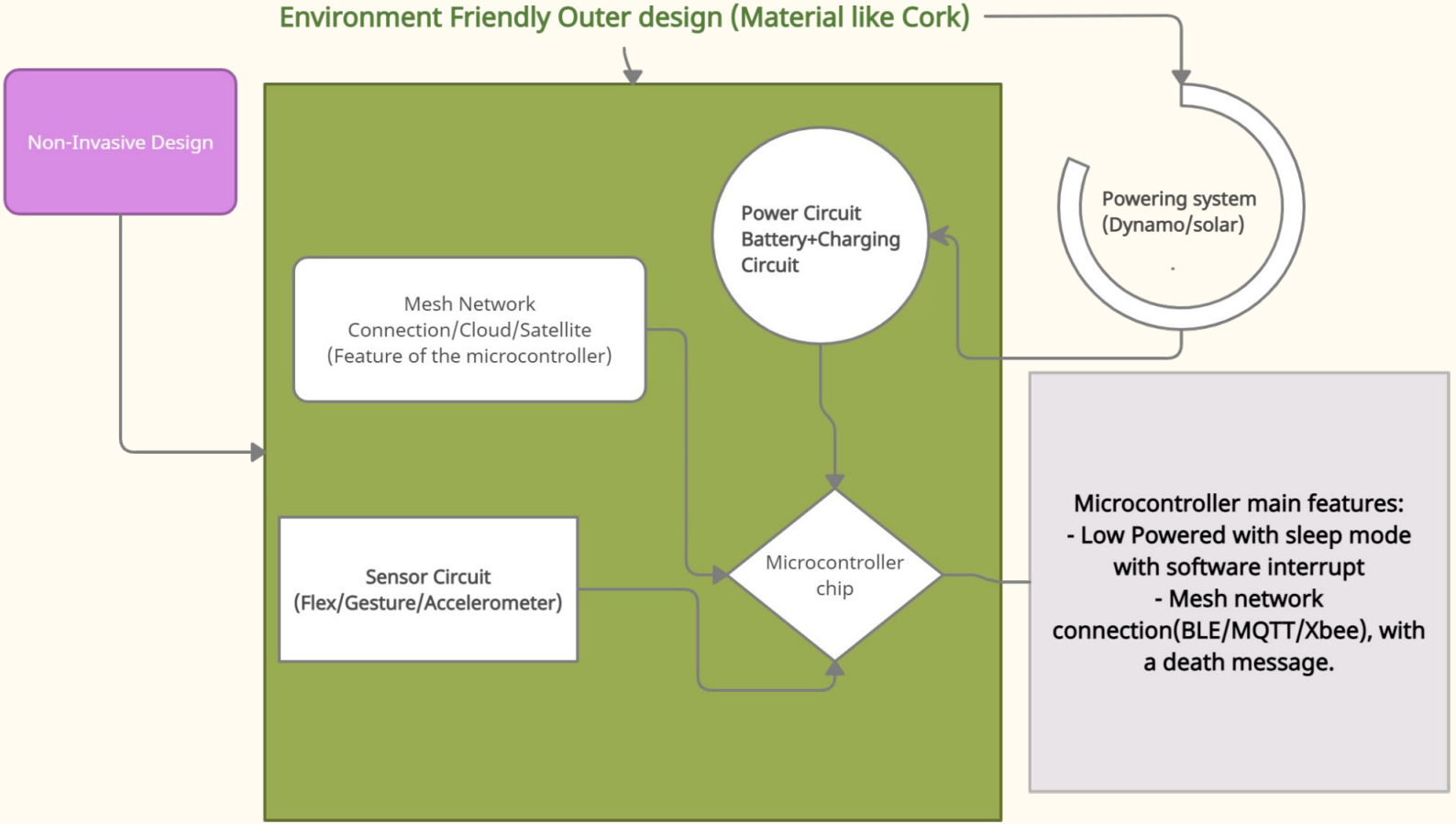
Software:
Azure Iot Suite

O/p given by sensor(most power consuming sensor): Acceleration with axis, Gyroscope Values(Position and tilt can be calculated): Analog Output read in voltage and mapped to the range of the accelerometer. that is value read b/w 0 and 1024.
Current sinking capability of input port of controller: 12mA. 40mA is for logic signals with capacitive loads
Sourcing capability of o/p port: 3.3V
Ampere hour selection criteria for battery: Min. 240mAh

IoT Cloud side Work Flow



Basic Device Format



References and Tutorials to Build the Project

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