# Project Design Phase – I

## Problem Solution Fit

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| Date | 1 OCTOBER 2022 |
| Team ID | PNT2022TMID00858 |
| Project Name | IOT-BASED BABY MONITORING SYSTEM SURVEY USING THE RASPBERRY Pi |

Define CS, fit into CC

**1. CUSTOMER SEGMENT(S)** CS

In our system, we automatically monitor the child in real time using Internet of Things, with the help of GPS, GSM, and Raspberry Pi. This system requires network connectivity, satellite communication, and high-speed data connection when we use web camera and GPS to lively monitor.

**6. CUSTOMER LIMIATIONS** CL

In this system, the collected values from every sensor like temperature sensor, pulse rate detection sensor, metal detection sensor, and the location value from GPS are used to detect the status of the child and alerts the respective guardians using GSM accordingly.

**5. AVAILABLE SOLUTIONS** AS

Our proposed system consists of Raspberry Pi microprocessor in which all other sensors, GPS and GSM are integrated. The users are required to register using their credentials to use the application. The device will be given to the children for monitoring them regularly. We will feed the boundary value while writing code for the system and we control it using GPS for that device which is also known as Geo Fencing. These data are stored in the server.

Explore AS, differentiateg

Focus on J&P, tap into BE, understand

**2. JOBS-TO-BE-DONE / PROBLEMS** PR

The child safety wearable device can act as a smart device. It provides parents with the real-time location, surrounding temperature, SOS light along with Distress alarm buzzer for their child's surroundings and the ability to locate their child or alert bystanders in acting to rescue or comfort the child.

**9. PROBLEM ROOT CAUSE** RC

- Parents need not have a smart mobile. Set of keywords are used to gain information from the kit. LOCATION keyword is used to obtain the location of the child. UV keyword is used to obtain the temperature of the surroundings. BUZZ keyword is used to turn on the buzzer which is fixed in that device. SOS is used to send a signal to the device.

**7. BEHAVIOUR** BE

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Focus on J&P, tap into BE, understand

Identify Strong TR & EM

**3. TRIGGERS TO ACT** TR

they face in their daily life to their parents. They can't even realize what actually happens to them at their age. It is also difficult for parents to identify their children are being abused.

**4. EMOTIONS** BEFORE/AFTER

**Before:** Prevent children before being attacked, an autonomous real-time monitoring system is necessary for every child out there.
**After:** Increased the level of confidence and feel secured

**10. YOUR SOLUTION** SL

A Raspberry Pi-based system was used to create the hardware.Baby's heartbeat is detected using the B+ module and condenser MIC PIR motion sensor integration allows for the detection of sobbing.Pi camera is used to catch the baby's movement.movement of the child.

**7. CHANNELS of BEHAVIOUR** CH

ONLINE

Promoting through social media. With the help of social media entrepreneurs/influencer.

OÏÏLINE

- Newspaper advertisements.

Extract Online and Offline CH of BE