

## \_Define C

## 1. CUSTOMER SEGMENTS

CS

Child and women safety is a challenging problem nowadays due to antisocial elements in the society. The main customers are women and working parents.

## 6. CUSTOMER CONSTRAINTS

CC

- Data Accuracy
- Efficiency
- Can be used in any cell phone and does not necessarily require an expensive smart phone
- capable of holding the battery for a longer time

## 5. AVAILABLE SOLUTIONS

AS

The real time accurate location of the child and the surrounding temperature, humidity and also the heartbeat of the child can be tracked. SMS alerts can be sent to parents.

## 2. JOBS-TO-BE-DONE / PROBLEMS

J&amp;P

With the rapid development of urbanization and industrialization, more and more children are having safety challenges. By using a child safety monitoring system children can be warned about potential risks, and their guardians can be informed of location or activity abnormalities. A child safety monitoring system allows the parent to locate and monitor their children. This system is applicable in crowded places, keeps them in safety zone.

## 9. PROBLEM ROOT CAUSE

RC

- In today's world child abuses have been a major threat to society.
- There are reportedly 200000 children die due to accidental injuries each year.
- Rapid urbanization increased the number of working parents.
- The prevailing criminal attacks and abuses.

## 7. BEHAVIOUR

BE

IoT based Child safety monitoring system can be installed in phones and GMS Module, SOS Light, Temperature Sensor, UV Sensor, Alarm Buzzer can be used to monitor the children by parents through mobile phones. In a crowded place when child is separated from the parent then the parent can locate their child by sounding a very loud alarm.

Focus on J&amp;P, tap into BE, understand RC

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<p><b>3. TRIGGERS</b> <span>IR</span></p> <p>Hearing about the efficiency of the device. The child's safety is being a challenging issue and threat among parents. To ensure child safety, monitoring devices are used.</p>	<p><b>10. YOUR SOLUTION</b> <span>SL</span></p> <p>The solution is a IOT wearable device for children based on Arduino UNO and ATmega328P microcontroller that contains the real time accurate location of the child by GPS module and will also provide the surrounding temperature, humidity and also the heartbeat of a child by sensors. The secondary measure implemented was using a bright SOS Light and distress alarm buzzer present on the wearable device which when activated by the parents via SMS text should display the SOS signal brightly and sound an alarm which a bystander can easily spot as a sign of distress. The sensors are activated automatically when they are subjective to the miscellaneous activities. If any problem occurs it would alert parents through the cell phone so that they can take immediate action. The parent can get to the kid data intermittently by interfacing through this gadget. The data is stored into a cloud permanently to keep the track record of old data of the children for further reference. This device focus on the SMS text enabled communication.</p>	<p><b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span></p> <p>online</p> <p>The parent can get to the kid data intermittently by interfacing through this gadget. The data is stored into a cloud permanently to keep the track record of old data of the children for further reference. The sensors are activated automatically when they are subjective to the miscellaneous activities. The device can detect the child's location, it can detect the body temperature and the surrounding temperature, humidity and also the heartbeat of a child. SMS text enabled communication.</p>
<p><b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span></p> <p>The parents are worried about their child's safety so they are in fear, guilt and trust issues but after installing the child safety monitoring system they are confident about their child's safety and stress-free. The scenario is under control.</p> <p>Lost, insecure&gt; confident, bold</p>		<p>offline</p> <p>If parents find any miscellaneous activities, they can alert the bystanders. If they are near, they can reach out to the kid at the earliest. In case of child abuse, they can alert the nearby police station etc.,</p>