

Project Planning Tool

Date	16 November 2022
Team ID	PNT2022TMID17380
Project Name	IoT Based Safety Gadget for Child Safety Monitoring and Notification

If the child goes beyond that particular boundary specified, the respective guardians will receive an

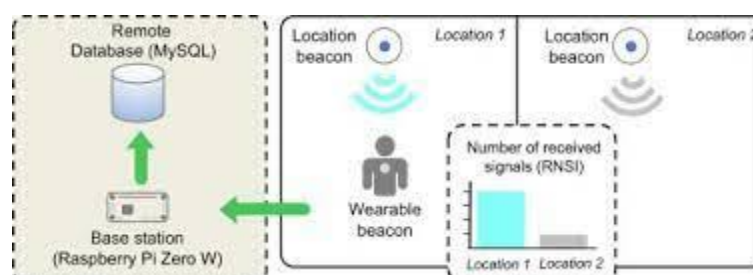
Alert call using GSM.

In our system, we use several components like,

1. Temperature sensor
2. Pulse sensor
3. GPS
4. GSM
5. Web camera
6. Raspberry pi microprocessor

BLUETOOTH:

Bluetooth technology is one of the early implementations of wireless connectivity of devices, which operates at the band of 2.4 to 2.485 GHz [36]. Other wireless technologies such as Zigbee and Wi-Fi also have implementations for tracking. Position estimation in outdoor localization using Zigbee technology [67] and an automated tracking & monitoring system for construction materials [31] are a few implementations of wireless technology in location services. Bluetooth Low Energy (BLE) beacons are low power devices which were developed to control short range applications [24]



GPS TRACKING:

GPS tracking is the surveillance of location through use of the Global Positioning System (GPS) to track the location of an entity or object remotely. The technology can pinpoint longitude, latitude, ground speed, and course direction of the target.

The GPS is a "constellation" of 24 well-spaced satellites that orbit the Earth and make it possible for people with ground receivers to pinpoint their geographic location. The location accuracy is anywhere from 100 to 10 meters for most equipment. Accuracy can be pinpointed to within one meter with special military-approved equipment. GPS equipment is widely used in science and has now become sufficiently low-cost so that almost anyone can own a GPS and many do in a smartphone, tablet or GPS navigation device.

GPS tracking is invaluable for police, firefighters, military personnel and large courier businesses. Many of these use automatic vehicle locator (AVL) systems. AVL systems generally include a network of vehicles that are each equipped with a mobile radio receiver, a GPS receiver, a GPS modem and a GPS antenna. This network connects with a base radio consisting of a PC computer station as well as a GPS receiver and interface. GPS uses interactive maps rather than static map images on the Web. AVL systems can be used to increase the accountability of field personnel and boost the efficiency of a company's dispatching procedure through tracking and communication.

Other GPS tracking technologies include GPS guns that law enforcement can fire at a fleeing car, avoiding a dangerous pursuit. In some places, law enforcement representatives also use GPS dust, which consists of GPS trackers so small they might be blown or rubbed on a target's clothing.

GPS devices in smartphones and other mobile devices are often used to track employee location. Privacy advocates warn that the technology can also make it possible for advertisers, government, hackers and cyberstalkers to track users through their mobile devices.

