

## PROJECT PLANNING PHASE

### SPRINT DELIVERY PLAN

Date	22 November 2022
Team ID	PNT2022TMID14548
Project Name	IOT Based safety Gadget for child safety monitoring and notification
Maximum Marks	4 Marks

Project Planning Phase:

<SPRINT DELIVERY PLAN>

This paper mainly focuses on child safety solutions which

Contain two major devices namely Smart gadget and BLE

Listener device. The system also includes an Android app

Namely Parental App which will be developed and installed on

Parental phone.

This paper consists of 6 modules as follows:

1) Live Location Tracking: Safety gadget contains a GPS

Module which will fetch the current location and sends it to the

Microcontroller for required processing, the safety gadget is

Also installed with the GSM module to respond for location

Request sent via SMS from parental phone. The system is

Connected to cloud via Wi-Fi technology and hence the GPS

Location is updated to the cloud at regular intervals or on

Request, whenever parent want to monitor the location of safety

Device then parental app can be used which fetches all the data

From the updated cloud and also display the current/live

Location of the safety gadget.

2) Panic Alert System: The gadget is equipped with panic

Alert system feature which mainly consist of a button that is

Triggered only during certain abnormal/panic situations, this

Button is programmed in such a way that, once it is triggered

Then multiple alerts in various forms occurs within few seconds

Of time, SMS and also phone call is triggered to the parental

Phone from the safety gadget GSM module to the parental

Phone, which consists of current location of gadget fetched

From its GPS and a pre-installed panic message seeking for

Help. An alert notification on parental app is triggered via Wi-

Fi on safety gadget communicating to cloud where parental app

Receives the information.

3) Stay Connected Feature: This feature is to communicate

Between safety gadget (GSM module) and parental phone

Always connected irrespective of the situation, safety gadget can

Make a phone call anytime to parental phone and vice-versa.

Safety gadget which will be displayed on its screen.

4) Health Monitoring System: The gadget consists of heart

Beat and temperature sensor which is used to monitor the

General health condition of child. Any abnormalities being

Detected in the health monitoring parameters by the safety

Gadget then an immediate alert is sent on the parental app via

Wi-Fi. Also, displays on parental app.

5) Gadget Plug and Unplug Monitoring: This feature is to

Keep monitoring if the safety gadget is plugged or not by

Monitoring the contact switch, necessary alerts are provided on

Parental app whenever the device is unplugged.

6) Boundary Monitoring System: Binding gadget is the

Device which is used to satisfy this feature along with safety

Gadget and parental phone. This gadget is used to monitor safety

Gadget within a bounded area using wireless technology. Once

The safety gadget is moving out of the threshold distance from

The BLE listener device then an alert is provided on device

Itself, which will be used by parent/guardian. This feature of

Binding gadget is designed to work independently without

Phone network signal/internet so that safety gadget can even be

Under monitoring when it reaches remote areas where

Communication signals are not reachable like forest.

#### A. Software Specification

The Arduino Software (IDE) which is an open-source and

Makes it easy to write the code as well as to upload in to the

Board. It runs on the Linux, Mac, IOS and Windows. The

Programs are written in Java, based on the Processing and other

Open-source software. This software makes the interfacing with

Arduino-Uno much more reliable. The primary reason for using

The GS shield as the mode of communication over Wi-Fi and

Bluetooth was that this gadget was aimed at being accessible to

Any smartphone user. Also, to make the user- friendly as possible.

Applications for the Android operating system are programmed using the SDK Android software development kit and Java programming language that also may be used with C or C++.

The Android Studio is the official programming environment that allows developers to build Android apps. The idea behind the Android app has been derived from having an

automated bot to respond to text message responses from the user. It will provide the user with pre-defined response options at just the click of a button. The user doesn't need to memorize

The specific keywords to send. Also, the both will be pre-programmed to present the user with a set of pre-defined keyword options such as "DEVICE\_LOCATION".

# Sprint Planning Scrum Backlog Grooming & Review



# Project Meeting Planning Sprint Schedule

*This slide is 100% editable. Adapt it to your needs and capture your audience's attention.*



## Scrum Master

*Facilitator*

- Scheduled meeting space
- Publish agenda
- Check calendars for company events
- Text Here
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## Product Owner

*Sets the goal and priority*

- Ensure candidates backlog items are ready according to teams definition
- Ensure team skills and capabilities are aligned with backlog item needs
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## Development Team

*Plan the work and time it will take*

- Update teams work status and refer to it during meetings
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