

Mobile RFID Tracking System

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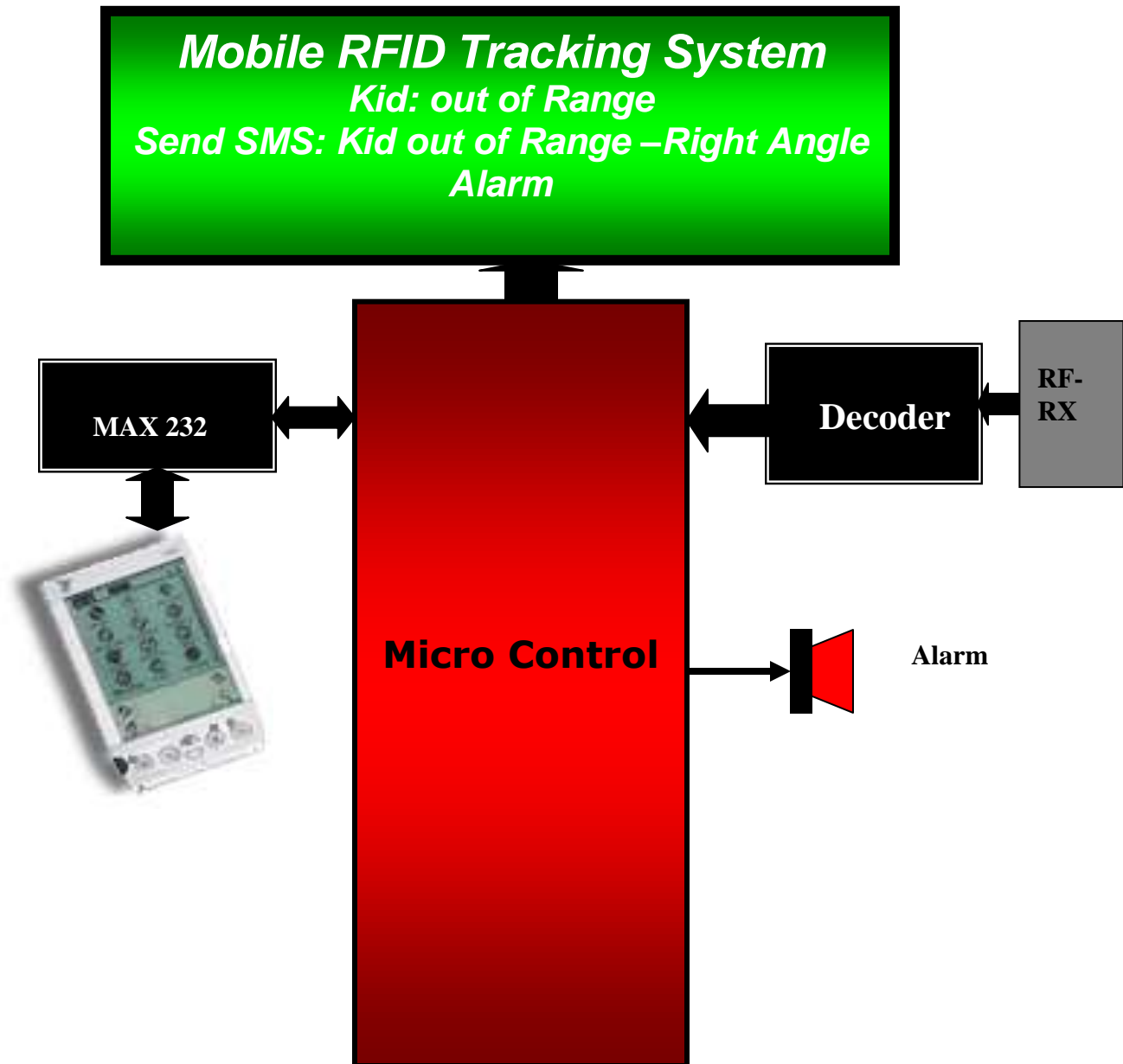
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Abstract:

This paper describes the design of an RFID kids tracking system. It is designed to track a moving child in a wide area, such as a park or mall, using RFID technology. The proposed system has hardware and software components. The hardware architecture consists of an RFID active tag, RFID tag reader, The tag readers are distributed around the open area, e.g. park. The tags are programmed with kid's profiles and are worn by the kids. Communication between the tag reader and the Handset of Parents kit is done via wireless. The software architecture consists of a communication driver that handles all communication functions done at the Master kit Handset of Parents kit.

1. Parents Handset / Park Reader Module:

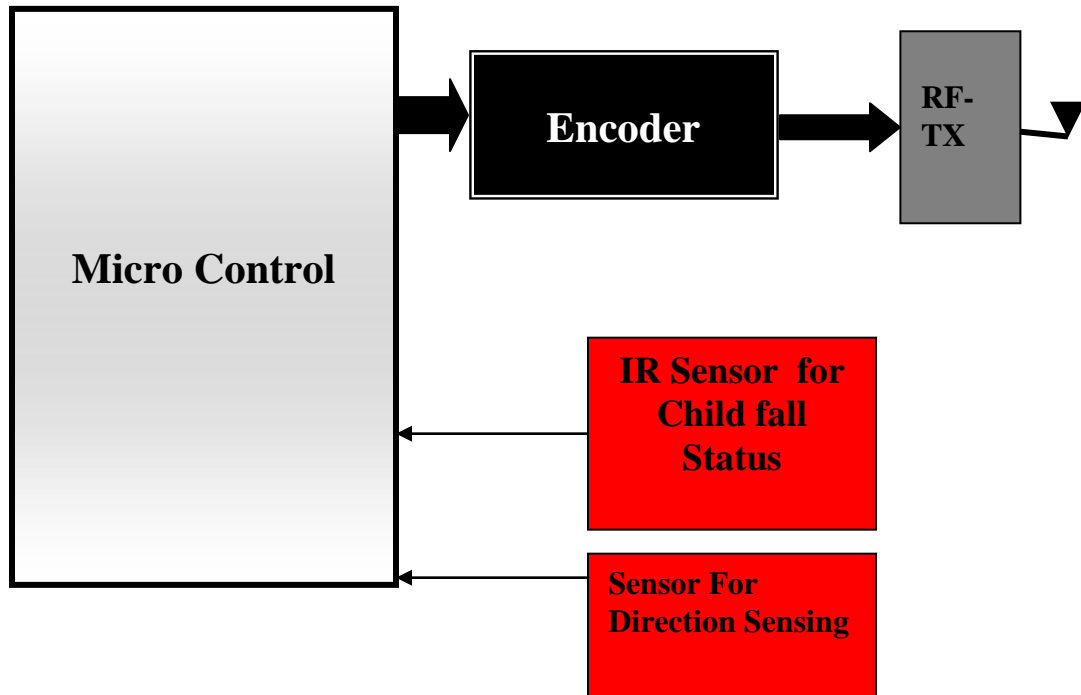


Description:

This Monitoring and Control system having two different modules,

- 1) GSM Parents Handset interface Unit
- 2) Child RF-ID unit

2. Child RF-ID Tag Unit:



1) GSM Parents Handset Unit:

This is divided into two different modules,

- a) Serial Communication
- b) Display module
- c) RF-ID
- d) SMS using FBus cable

2) Child RF-ID Unit:

This is divided into two modules,

- a) RF-ID protocol design,
- b) Control unit

3) GSM

This system is used to read the data from Child from 100 meter distance in which direction to identify. Then for data's are sending into Parents kit via RF protocol design communication. The data will send by wireless mode by 433MHZ frequencies. The Parents unit will receive all data and display on the screen and if out of range or any signal problem it gives alarm.

At the same time the controller will send the data (Status) into Parents mobile via GSM communication.

Criteria:

Status to SMS:

The control set into SMS via mobile using GSM to microcontroller.

- 1) Name of child
- 2) Out of Range
- 3) Fall down
- 4) Send SMS where your child (Which street / Park)

Advantage of these Systems:

- 1) Automation of all CUSTOMER to communicate through remote GSM using mobile
- 2) Save data using automatic control systems
- 3) Less cost to communicate
- 4) Less power to automate
- 5) Increase Safety
- 6) To increase n number of person to communicate and automate.
- 7) Easy and fast identification system