

DESIGN AND IMPLEMENTATION OF SMART DAY CARE MONITORING SYSTEM

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Abstract:

Infant care is an important challenge facing parents today. Recognizing a menace at its initial point would be the finest way of preventing any dangers it may cause. The child being examined is not always in the career's vicinity. This led directly to various remote baby control services designing and deploying them. This paper explores the advantages and drawbacks of the various control systems built and currently on the market. This article introduces a modern approach to monitor children and infants. The monitor calculates the precise location of the subject in the crib and shows the three separate behaviours, warning that a risky position or action has been detected. These alerts are shown on a computer screen, and on a mobile phone. The device needs a computer that is operated over a display panel or mobile phone using the microcontroller. There is also discussion of the area for future studies on this subject.

Keywords: Microcontroller, IoT, MEME accelerometer.

I. INTRODUCTION

The system, for its part, determines the precise position of the persons in the crib and senses three different acts. [1]. These Alerts are shown on and also on a mobile phone on a control panel. The computer uses a microcontroller that can be controlled over a controller or cell phone. [2]. The range for future research on this topic is also discussed here. You can not be always next to the caregiver by the baby under surveillance. The caregiver will participate in different activities in the premises or such locations. A remote monitoring technology has become essential to baby protection because a baby cannot be neglected for too long. This has led to many baby remote control technologies being produced and built. The first section of this paper is a study of the different measurement instruments developed and used today. Many of them have application accessible through cell phones & touch pads that encourage the monitoring of the baby situation.

The action of babies, and above all the location of babies, is a big health and development factor [4]. For control purposes, various sensors and tracking devices are used. Sensors & cameras may be sometimes placed on a foot or in the hand[3] or under a jacket[5] or on or off

the night side [6],[7]. Such remote sensor systems are fitted with ultrasonic sensors and cameras.

The following paper is as follows. The flow map of this project is given in Section II. The suggested approach is laid out in Section III and its functioning. The analyses and discussions are discussed in Section IV. Section V ends respectively with the end.

II. FLOW CHART

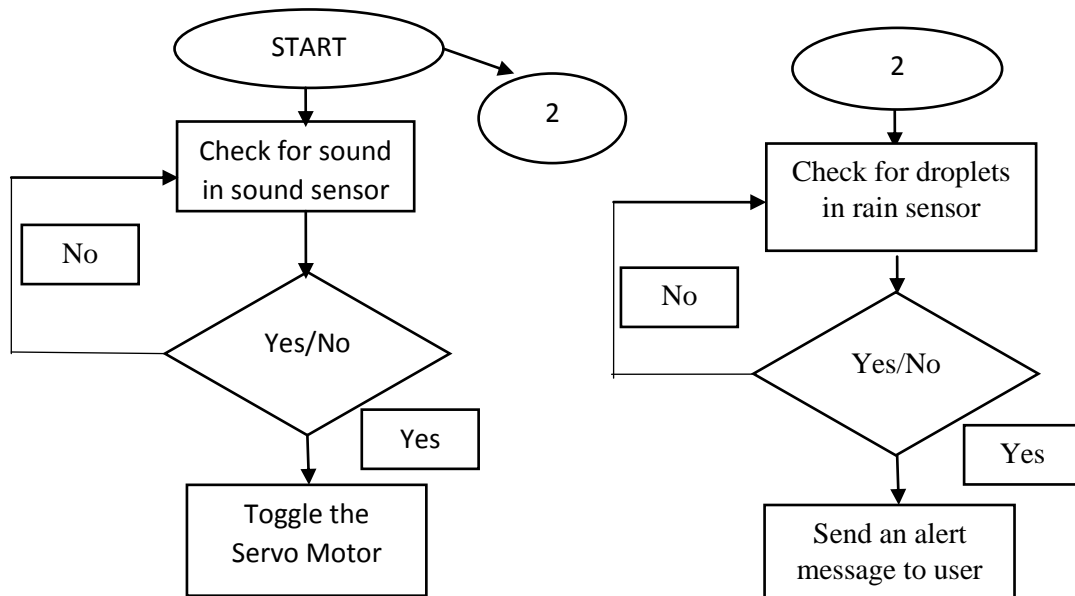


Fig 1 Flow chart for the proposed system

III. PROPOSED SYSTEM

Figure 2 illustrates the block diagram of the proposed framework which constitutes of sound sensor, rain sensor, servo motor, GSM module and a controller. Here, overall components are powered by a 6V battery. Sound sensor is used to detect the abnormal high pitch of sound, which may use to indicate the cry of a baby. Whenever such sound arises our proposed system is designed to activate the servo motor and toggle the cradle. In order to make the baby sleep or to make him/her calm. Rain sensor is used to track the status of the diaper, and to notify the parents if the baby urinates his/her inners.

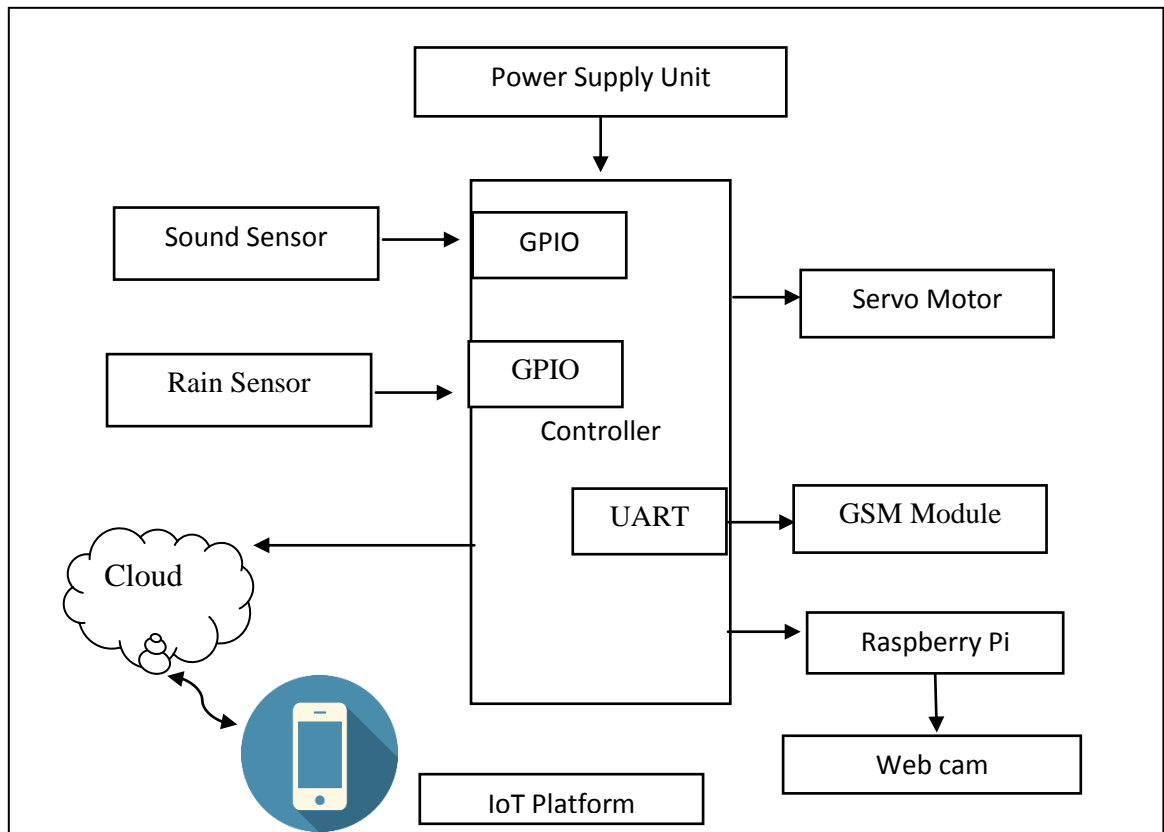


Fig 2 Proposed device block diagram

IV. RESULTS & DISCUSSIONS

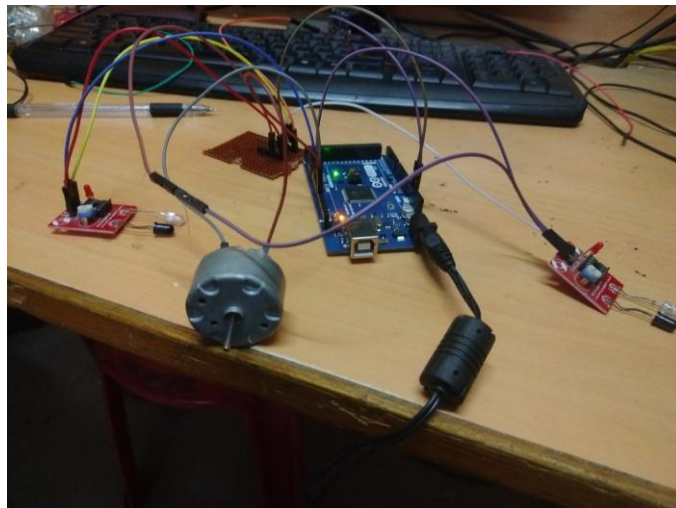


Fig 3 Implementing hardware of the device suggested

The implementation of the proposed method is seen in Figure 3 above. Sound sensor is used to detect the abnormal high pitch of sound, which may use to indicate the cry of a baby. Whenever such sound arises our proposed system is designed to activate the servo motor and toggle the cradle. In order to make the baby sleep or to make him/her calm. Rain sensor is used to track the status of the diaper, and to notify the parents if the baby urinates his/her inners. This gives the required information to the caregiver or the parents some vital information's.

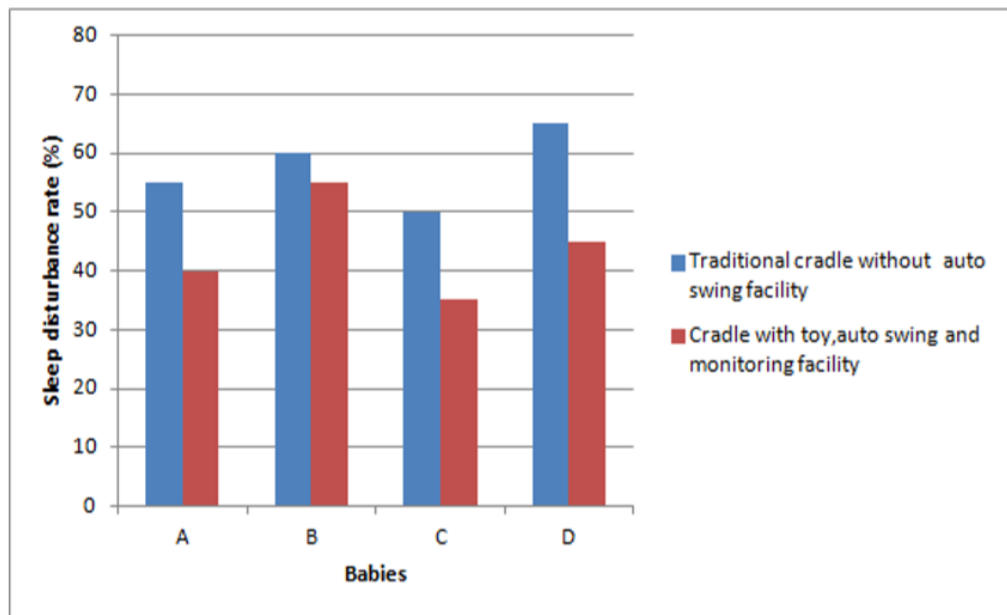


Fig 4 Traditional Cradle vs. Suggested Cradle

It is noticed that with the assistance of the suggested crib design the child gets greater attention. It also ensures infant protection.

V. CONCLUSIONS

Baby treatment is hard issue worldwide. It is really necessary responsibility because they are our future. Although the mother's lap is ideal for a child, this system is designed in view of the need for the contemporary world and the relevance of baby care. This program is cost-effective and easy to use to help working parents do their task. Video surveillance is facilitated from most widely used android mobile phones. In coming years, this framework may be expanded by more features such as IR(Infrared) for night mode.

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