

AMBUBOT: AMBULANCE ROBOT AUTOMATED EXTERNAL DEFIBRILLATOR ROBOTIC AMBULANCE

ABSTRACT

We designed and developed an ambulance robot, called it AMBUBOT, that brings along an AED(Automated External Defibrillator) to help lay rescuers for saving patients life in a sudden event of cardiac arrest.

The first aid to the victim can be carried out once an incident alarm is transmitted to the AMBUBOT station by sensing via body-attached sensor and/or mobile phone application. Such applications transmit required information to the AMBUBOT center for further execution. AMBUBOT center is integrated with three independent servers namely database server, message controller, and GIS server. In addition, message controller server is connected with telecom's short message server for transmitting the message to family members of the patient.

The AMBUBOT robots are located in AMBUBOT stations when several stations can be covered via single center where human operators are located. Different methods had been proposed for dispatching AMBUBOT to locate the victim namely telecontrol, partially autonomous, and fully autonomous operations. Telecontrol method is used to control the operation of the robot.

In this method, not only AMBUBOT follows instructions of human operator till the robot reaches the location of victim and delivers the AED but also provides instruction to the people in the location for applying the AED hence the lay rescuers will dry the victim's chest and attach the AED pads by themselves while instructed and monitored by the human experts in the main center in real-time.

EXISTING SYSTEM

- Natural calamity is generally inevitable and ubiquitous worldwide that kills thousands of people and destroys billions of dollars of habitat and property each year.

DISADVANTAGE

- Emergency situation refers to any unforeseen event that can jeopardize and bring significant injuries on a person's life

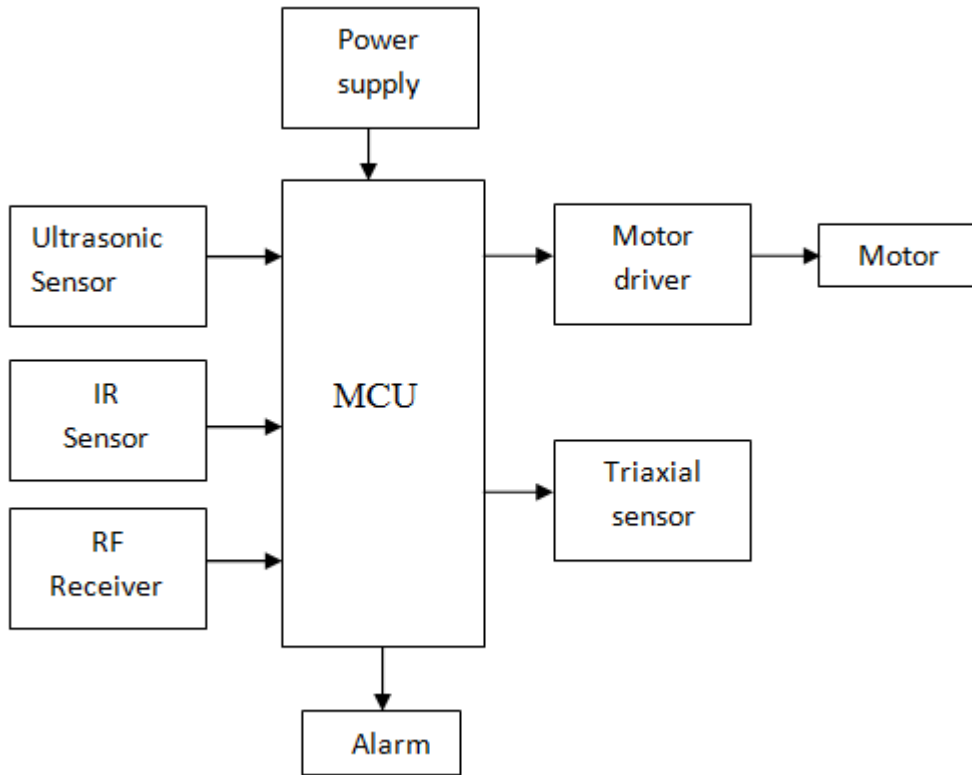
PROPOSED SYSTEM

A novel robot introduced. In order to overcome some difficulties in providing an Automated External Defibrillator (AED) device at the nearest location of victim suffering from sudden cardiac arrest in the shortest possible time before the advent of the ambulance

ADVANTAGE

- The ambulance has to transport the patient to the hospital as quickly and safely as possible.

BLOCK DIAGRAM



HARDWARE REQUIREMENTS

- Ultrasonic sensor
- IR sensor
- RF sensor
- Micro controller
- Motor
- Triaxial sensor
- Power supply

SOFTWARE REQUIREMENTS

- MCU COMPIERS
- PROTEUS SOFTWARE

MICROCONTROLLER may ATMEGA,8051,PIC OR Arduino

