WIZnet iMCU Design Contest 2010 Entry #003178

RFID Sales Attendance Monitoring System (RSAMS)

Abstract

Development of rapid information technology, particularly internet technology offers convenience and keeping that can be enjoyed. One of them is easy access to information and monitoring / supervision of on-line via the internet. Supervision / monitoring can be used to conduct the evaluation to improve performance. RSAMS used to conduct monitoring or supervision that is quite simple to sales who were conducting checks into a store. A manager can supervise the sales if such sales had to finish the job in a shop that has been determined. Each is appointed by the company's sales have a card based on RFID technology has a unique ID number so that there is possibly no sales that have the same ID number. ID number is used as a main parameter in this monitoring process. RFID card which used in this application based GK4001 chip. Any ID that is owned by a designated sales had previously been registered by the manager of the database on the webserver has been fixed.

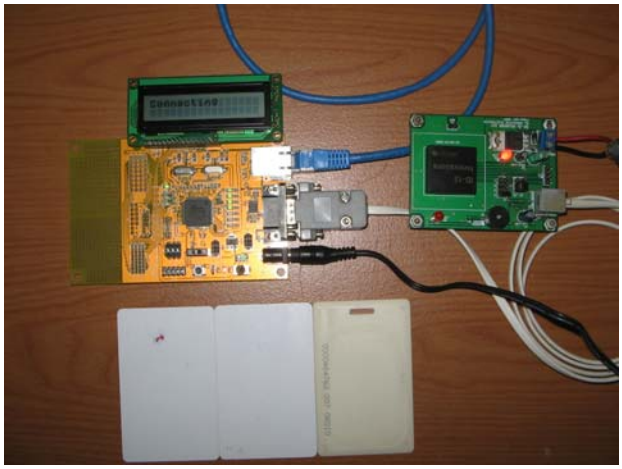

Figure 1. Hardware Configuration of RSAMS

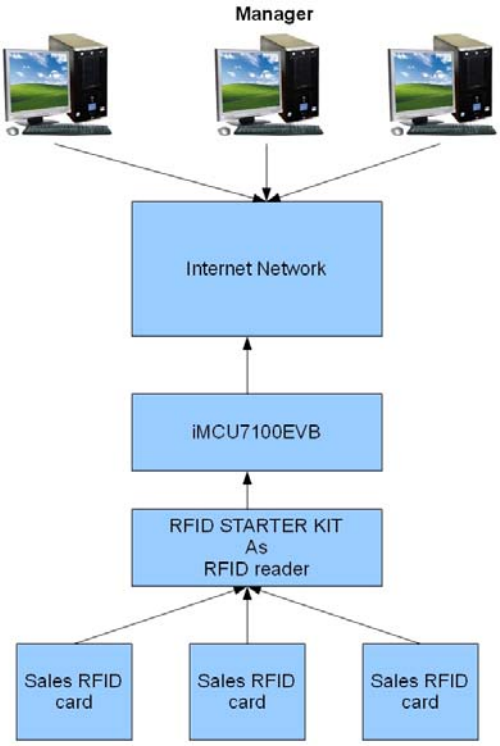

Figure 2. Block Diagram of RSAMS

At any store that has been designated an RFID reader installed which is used to read the ID of each sales. RFID reader connected on-line with the help iMCU7100-EVB. RSAMS generally divided into three major parts, namely the RFID card reader, the network connection to the Internet, and the webserver database. Part RFID card reader function to read the unique ID number of each sales. RFID STARTER KIT from Innovative Electronics is used as RFID reader in this application. Part of this RFID card reader based ID-12 which has a serial interface. Section connection to the internet network handled by iMCU7100EVB. By using iMCU7100EVB, the connection to the internet network will be more compact because it does not require a computer to simply connect to a wired internet network. Parts of the database server to update its database functions for the incoming caller ID every five seconds. Operational processes of the general RSAMS is when RFID reader detects the RFID card, ID number will be read and sent to the webserver database via iMCU7100EVB. Furthermore, on each interval of time (five secons) webserver database will perform the update. If there is detected a new ID number, it will checked whether the ID number was registered previously. If these ID numbers are registered previously then the database will be updated, on web interface will appear history with the incoming caller ID information when logging. Managers can monitor only by opening RSAMS URL address of the office without having to come directly to the field.

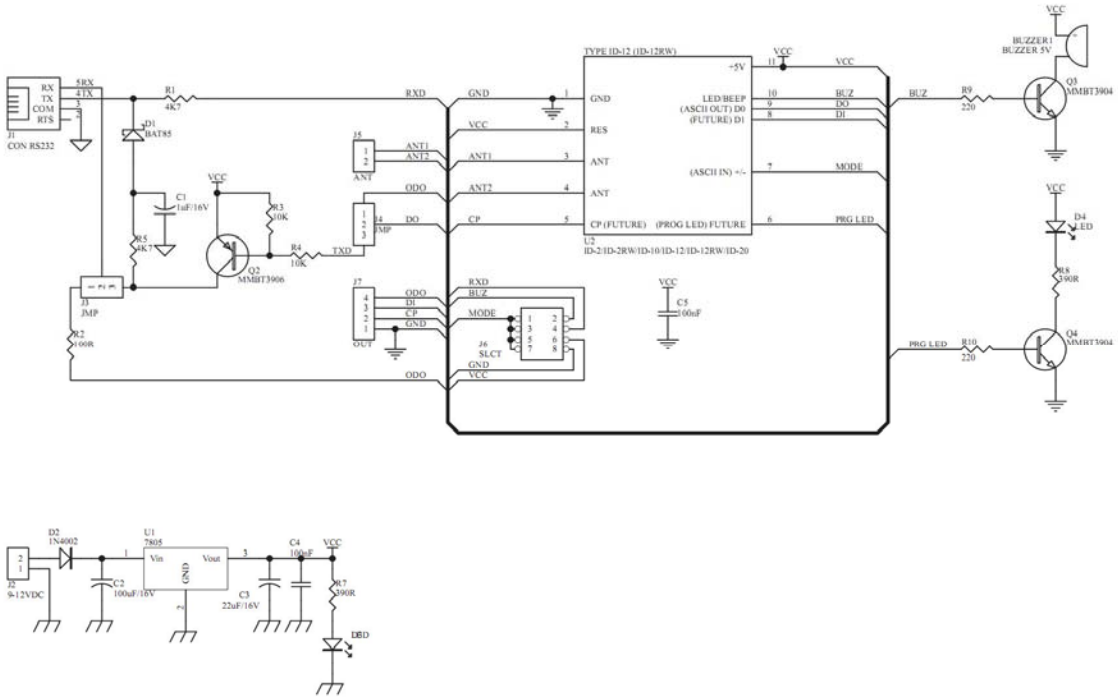

Figure 2. Schematic of RFID Reader

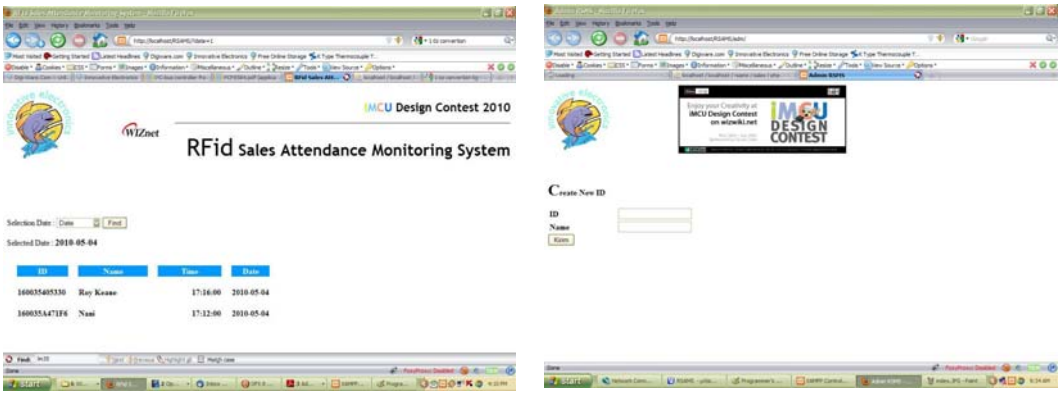

Figure 3. View of Index & Admin Web Page