

ABSTRACT

There are so many home activities that must be done to keep it looking clean and tidy, especially on housing. Obviously we cannot do everything alone as it can be imagined how much time is spent for a very large house. Home automation system is starting to be applied now and are very helpful in the housework of course. Especially at the time wanted to open and close the garage door and set a garden lamp turn on or off. Residents just press a button on the remote and everything will be realized. Lots of components contained in the tool, but the very act is the RF transceiver.

In this tool there are two series of mobile and home circuits. Home circuit made originated from a pushbutton input is active low as connected with the ground. Input will be processed on ATmega-8535 using the language and will issue output BASCOM on TX and RX ports in accordance with the pushbutton is pressed. The output of the TX and RX ports ATmega-8535 can be directly connected with the RF transceiver because it has a TTL. Then the RF transceiver RF Transceiver will transmit to the home circuits. At the home circuit, the data entered on the device home RF Transceiver will be processed by the microcontroller ATmega-8535. Then the output will generate 0 or 1 on a certain port and would give orders to the load.

Final Project In this writer make "Design and Implementation of Smart Home Automation System Using Microcontroller-Based RF Transceiver". these devices work well so can open and close the garage, open and close the main door key and turn on or turn off the lamp but there are raising in the power supply home circuit.

Keywords: RF transceiver, AVR Microcontroller ATMEGA8535, BASCOM (Basic Compiler)