

In order to reduce infection between doctors and nurses, especially after the growth of many viruses such as: Corona virus, we create our own hospital system to solve this problem and we hope that it will be done in all hospitals, this system is an advanced hospital. There's also a fire alarm in the hospital for safety against fires. In addition to this there's also: Gases Sensor to Measure the gases in a patient's breath that gives an indication of the effect of the lungs in taking oxygen and expel CO<sub>2</sub>. And, the second part is a movable robot to deal with patients and provide them with their needs and the ability to communicate between the patient and the doctor. Let us explain to you its establishment and what is in the hospital is not found in other hospitals. Firstly we started from the entrance gate we divided it into two gates one for patients and one for doctors and nurses and this is very important step in isolation, the gate of the doctors have identity sensor :RFID and medical sensors to make sure that the doctor is not infected and the gate of patients have a counter that counts and when it reaches the maximum number of capacity of the hospital the gate closes and it has sterilizer. Every room in the hospital has medical sensors such as: temperature sensors and heart rate sensors and oxygen rate sensors in addition to this there's also: Gases Sensor to Measure the gases in a patient's breath that gives an indication of the effect of the lungs in taking oxygen and expel CO<sub>2</sub>. In the room there are also switches to make it easy to patients to get their demands from food and water, if they need the doctor/nurse and also for emergency. The features of the robot are, firstly, it has a camera to see the doctor's patients also mic to hear them, it has an arm for holding things and easy to control them, the robot has a place dedicated to transport medicines, food and drinks to the patient. And of course, we do not forget to sterilize and clean the robot, as it is self-sterilizing, and the robot is controlled by an NRF module, and it is connected wirelessly through a mobile application. And from within it, the doctor can control the robot, and if there is any malfunction with any devices or any sensors, the faults are detected and repaired from within these rooms. Finally, it is common in hospitals that there are always no places for new patients, and this is discovered when they come to the hospital, and this problem has been solved through GSM, as we mentioned earlier that there is a counter in the patient gate and when it reaches the maximum number of patients beds, a message is sent to nearby ambulance centers. In order to control all electronic and wireless applications inside the hospital, a data room or the so-called control room has been added.