**Software Engineering Project Proposal**

Smart parking

**Problem diagnosis:**

As we all know, nowadays there are more and more private cars in our society, so that there are fewer parking lots available.Especially in places with a large flow of people, the car owners do not know where there is a free parking space, so they jam together, resulting in road congestion.But there are lots of parking Spaces.In addition, the existing Parking Garage/Lot is too complex and needs to be rebuilt to build a new Parking Lot, which requires too much time, manpower and material resources. Therefore, our idea is to make some small changes in the existing system to achieve the maximum effect.And this small change will not cost too much money and time, and human resources.

**Proposed treatment:**

In our opinion, a parking lot should not only display the number of empty Spaces in the whole parking lot where the owner can see, but also tell the owner its specific location.That way, owners don't have to go from one parking space to the next.

**Plan of work:**

We need to put a sensor on each parking space to record whether there is a car in the parking space.If the parking lot has several floors, a large display at the entrance of the parking lot shows the remaining parking Spaces on each floor, and the owner can choose which floor to park on.At the entrance of each floor, a display is set up to show which row and position there is a parking space.And the number of rows and Numbers in the parking lot should be obvious, so that when the owner enters the parking lot, he will know where there is a parking space, so that he does not need to look for it.