

Abstract

Toilet is the most frequently visited by everyone not least the elderly. However, because of dementia and neglect experienced by many seniors, toilet be the most difficult places they use. Although there has been various types of smart toilets that are easy to use, but there are several factors that make not everyone can have it. In this final project, created smart toilet system. Called smart because it can turn on and turn off the lights and flush automatically without human intervention. With PIR sensor used to detect the presence or absence of the user, then the microcontroller ruled lights and Servo Motor. When the PIR sensor detects the presence of the user, the lights will flash. Then, if the user is out of the toilet and the PIR sensor no longer detects, then the lights off and Servo Motor will pull the flapper so that water can flow. After doing some analysis and testing, the results show that all functions are running as expected. This smart toilet system can be implemented on an actual toilet without having to change the previous conditions.

Keywords: passive infrared, smart toilet, servo, pir