Home Automation using TINKERCAD

Submitted by: Gokul Ram S, Ajay N, Vinodhini R, Rajkumar S

Assignment Report:

Description about the simulation:

- The door will open if anyone comes near at the door within 40cm and door will be open for 2 seconds. Then it will check again if anyone is still within 40cm, if yes, then the door will still open for 2 more seconds and if no, then the door will automatically be closed. (We used here Ultrasonic Sensor for measuring distance and Servo motor for opening the door)

- In this automated system design if the room detects any movement, the light (LED) will automatically be lighting. If there is no movement in the room, then the light will remain off. (We used here PIR for detecting movement and LED for Light)

- The automated home will detect room temperature and if that is greater than 20 (degree Celsius) then a fan will be running, otherwise, the fan will remain stopped. (We used here temperature sensor LM35 for detecting temperature and a motor for running a fan)

- In order to avoid any fire accidents or gas leakage Gas sensor is used along with buzzer.If there is any gas detected by the Gas sensor then the buzzer starts buzzing to indicate there is a gas leakage.

- In order to avoid unnecessary usage of Light bulb during day/afternoon times LDR sensor is been used which controls the intensity of light used during the day.

Output: