

# **PROJECT IDEAS**

Git Link : <https://github.com/mittal-prashant/CS203>

Team : Anubhav Kataria (2020CSB1073) , Prashant Mittal (2020CSB1113)

## **Idea 1 : PASSCODE DOOR LOCK (Preferred)**

**Objective** : Set, Change and Check a passcode combination.

**Functionality** : In this we would make a passcode combination which would act as a security system, The length of the passcode will be between 4 to 7 bits followed by a #, until # is pressed the door will be unlocked and as soon as it is released the door gets locked. To change the combination the combination first enter the correct passcode followed by \*. Then enter new passcode two times followed by #. If it is not correct then re enter the password and also a reset button would be there that would reset the door lock and a new passcode will be asked which would be stored using the counter and check passcode using MUX.

## **Idea 2 : VENDING MACHINE**

**Objective** : To Implement Vending Machine using Verilog and see how the working of a vending machine takes place.

**Functionality** : In this program a user can choose an item among any of the four items in the vending machine. Also we will check the amount of money paid. In case of excess money paid the extra money will be refunded and in case the money is insufficient even after the designated time to pay the money, the money will be refunded without any purchase.

## **Idea 3 : BOWLING GAME RECORD**

**Objective** : Storing a Bowling Game record using FPGA and SHIFT REGISTER.

**Functionality** : Within this project, we have broken down our approach to implementing a realistic bowling game by storing the scores of the game according to the rules of the bowling game. A strike is worth 10 points (for knocking down all the pins) plus the number of pins knocked down in the next two throws. A spare is worth 10 points plus the number of pins knocked down in the next throw. The number of pins knocked down from this extra throw are added to the current score to get the final score.