Digital Lock

For Vehicle Protection
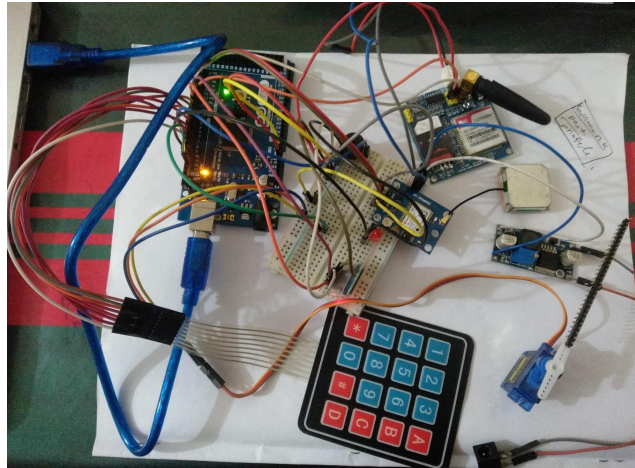
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Introduction

'Digital lock' looks like a **smart lock**. People who own bicycle, this system will protect their bicycle from **being theft** and gives the security protection.

Impacts on society

- **Stolen vehicle recovery:** Can be possible to find out the stolen bicycle by using GPS location.
- **Asset tracking:** User can easily track his bicycle.
- **Good economy:** Bicycle theft will be reduced from society.

Features

- System send message
  - When it will unlock
  - After three unsuccessful attempts
- Sends message with location
- Create alarm for alert
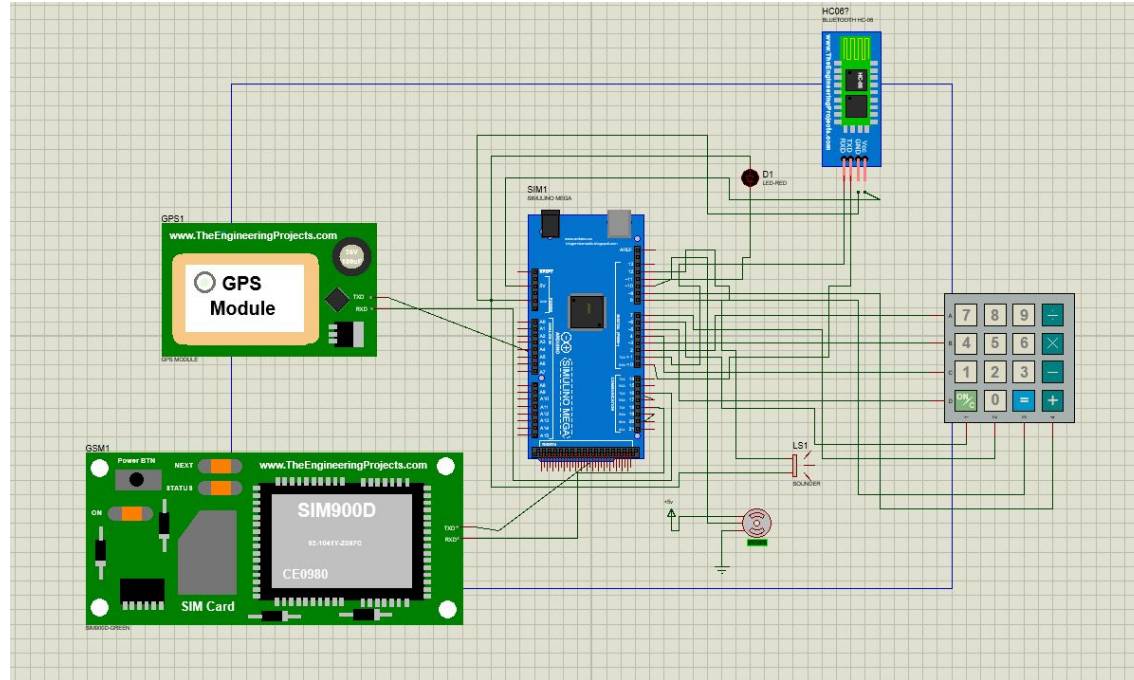
Project objectives

Our objective is to **protect vehicles** from being stolen.

Equipments

- Arduino Mega
- GPS Module
- GSM Module
- Servo Motor
- Bluetooth Module
- Power Adapter(12 V)
- Wires
- Matrix KeyPad (4 X 4)
- Mini Breadboard
- Buck Converter
- Battery

Design

Procedure

- Keypad and bluetooth module use for entering password
- After pressing password
  - If correct
    - Unlock
    - Send message
    - LED Blink
    - Buzzer with 1 beep

Procedure

- After pressing password
  - If incorrect
    - No change in lock state
    - Buzzer with 2 beep
  - If failed 3 times
    - No change in lock state
    - Buzzer with 5 beep
    - System will pause for 5 sec
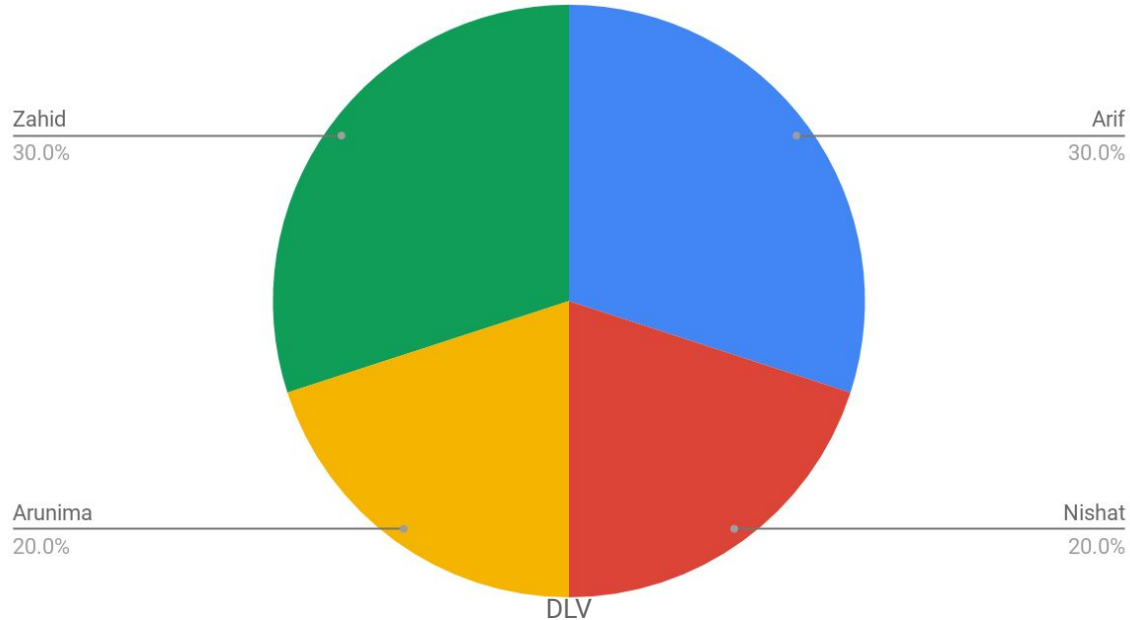   - Send a feedback SMS

Procedure

- Now the system is unlocked.
- To lock again, need to follow the same procedure.

Budget

Equipment	Quantity	Price (in Taka)
Arduino Mega	1	750
GPS Module	1	870
GSM Module	1	950
Servo Motor	1	320
Bluetooth Module	1	290
Power Adapter(12 V)	1	100
Wires	2 set	80
Matrix KeyPad (4 X 4)	1	75
Mini Breadboard	1	50
Buck Converter	1	70
Battery	2 Units	50
		Total: 3605

Members contribution

Points scored

Zahid
30.0%

Arif
30.0%

Arunima
20.0%

Nishat
20.0%

DLV

Conclusion

We are hoping that, our system will gives more security from theft. It will reduce the tension of the vehicle owner's create a theft-free environment.

Thank you

Q/A