BICOM SYSTEM

DONE BY GROUP NUMBER 43

ABDUL RIYAZ
VISHNUVARDHAN REDDY PUTTA
MOULIGA P
DEBOJIT PARIAL

TABLE OF CONTENTS

1) INTRODUCTION

A BiCom system is the extension of the unidirectional RKE(Remote Keyless Entry) to bidirectional RKE(Remote Keyless Entry) system. This system is basically use to display the vehicle status/information on the keyfob. The BiCom system can show or display **window status**, **alarm status**, **battery information**, **door status** of the vehicle on the keyfob. There are LEDs to show which feature is currently displaying.

2) FEATURES

1. The system can display the window status of the vehicle.
2. The system can display the alarm status of the vehicle.
3. The system can display the battery information of the vehicle..
4. The system can display the door status of the vehicle.

3) REQUIREMENTS

3.1) HIGH LEVEL REQUIREMENT

Test ID	Description
HL01	The system shall print the window status
HL02	The system shall print alarm status
HL03	The system shall print vehicle battery information
HL04	The system shall print door status

3.2) LOW LEVEL REQUIREMENT

For High level requirement	Test ID	Description
HL01	LL01	All the LEDs shall turn on at the same time after single press.
HL01	LL02	All the LEDs shall turn off at the same time after two presses
HL01	LL03	All LEDs shall turn on in clockwise manner after three presses
HL01	LL04	All LEDs shall turn on in anti-clockwise manner after four presses

4) SWOT ANALYSIS

STRENGTHS

- It works wirelessly and reduce human effort and shows different vehicle status

WEAKNESSES

- It has limited range(distance).

OPPORTUNITIES

- It can be implemented on mobile phones and its range(distance) can be increased.
- More features can be added.

THREATS

- The components of the system are hard to replace.

5) 5W's & 1H

WHO

- People who have vehicle.

WHAT

- It is a system which wirelessly shows status of a vehicle with LED indication.

WHEN

- Whenever the user wants to knows the status of the vehicle

WHERE

- It can be use anywhere

WHY

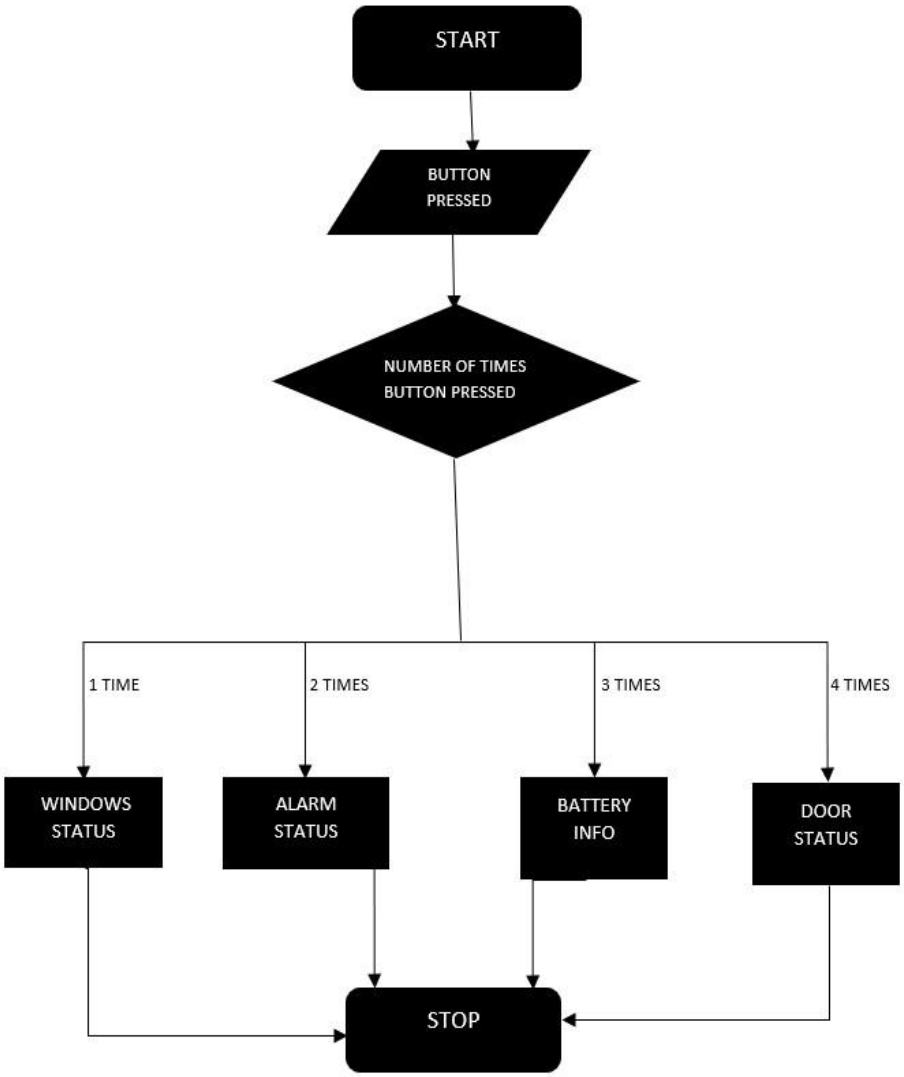
- To know the status of the vehicle

HOW

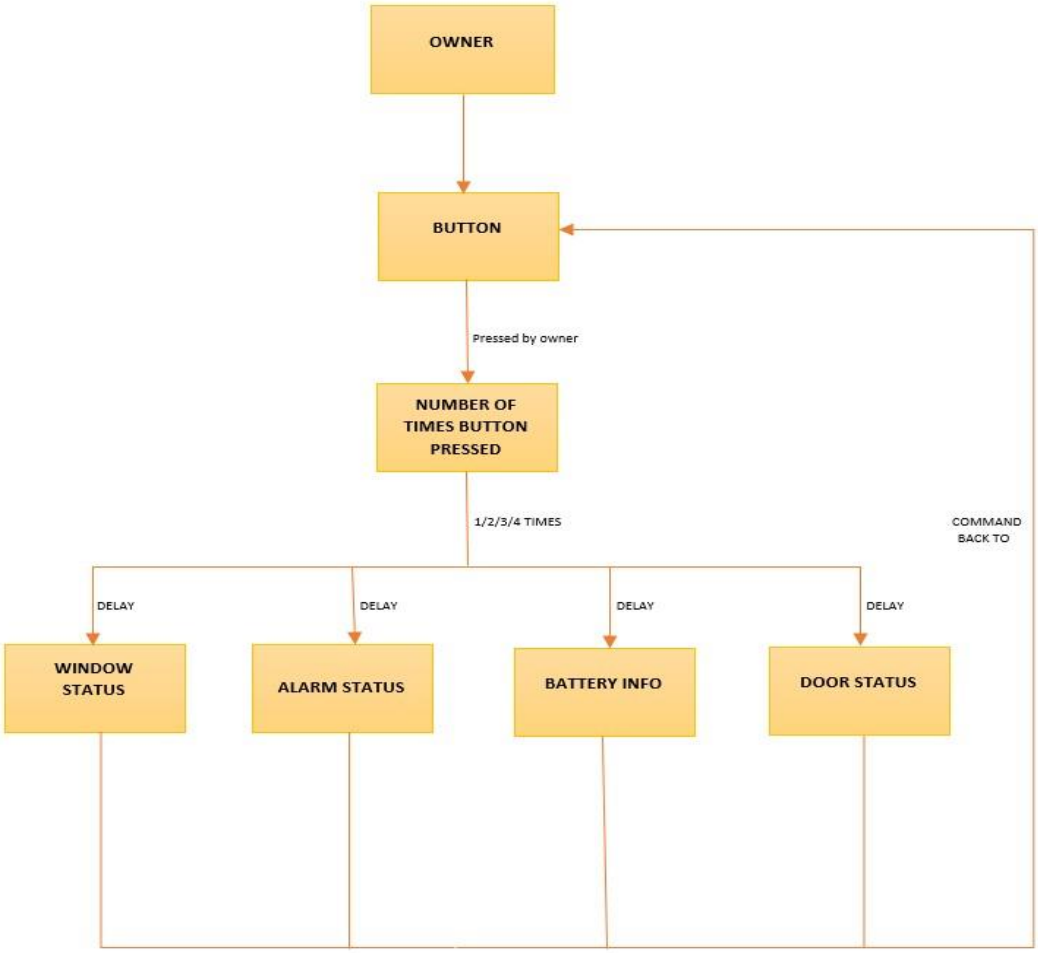
- The system can be operated by just clicking a button .

6) ARCHITECTURE

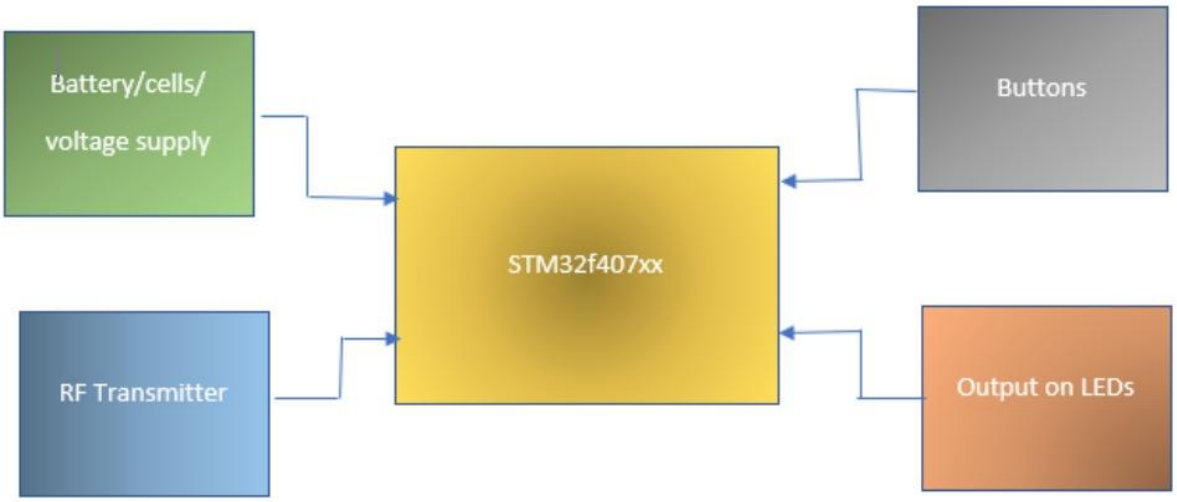
6.1) BEHAVIOURAL DIAGRAM



6.2) STRUCTURAL DIAGRAM



6.3) BLOCK DIAGRAM



7) TEST PLANS

7.1) HIGH LEVEL TEST PLAN

Test ID	Description	Input	Expected Output	Actual Output	Pass/Fail
01	Print window status	1 press button	Windows status printed	Windows status printed	Pass
02	Print alarm status	2 press button	Alarm status printed	Alarm status printed	
03	Print battery info	3 press button	Battery info printed	Battery info printed	Pass
04	Print door status	4 press button	Door status printed	Door status printed	Pass

7.2) LOW LEVEL TEST PLAN

Test ID	Description	Input	Expected Output	Actual Output	Pass/Fail
01	All LEDs shall on at same time	1 press button	All LEDs on	All LEDs on	Pass
02	All LEDs shall off at same time	2 press button	All LEDs off	All LEDs off	Pass
03	All LEDs shall on in clockwise	3 press button	All LEDs on in clockwise manner	All LEDs on in clockwise manner	Pass
04	All LEDs shall on in anti-clockwise	4 press button	All LEDs on in anti-clockwise manner	All LEDs on in anti-clockwise manner	Pass