Implementation of Magical Dice of Ancient Hindu Mahabharata Epic

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ABSTRACT

The magical dice listens to the voice of the trained person. The dice performed according to his dictates. These dice will always the trained; no one will beat in gambling. In this the voice input is given to the Ghost Remote Bluetooth Android application. The application connects the voice to the Google database and after processing the output is given to the Bluetooth module. The Bluetooth module processes the data and the output is given to the micro controller. The micro controller captures the data and the data is passed to the seven segment display. But the number on the seven segment display glows only when the leaf switch is pressed.

INTRODUCTION

In the Mahabharata, the dice that Shakuni Mama had, listened to him. It was made of the backbone of the deceased father of Shakuni. When his father subala died, Shakuni kept some of his bones with him. After that once Shakuni became fascinated with gambling. He was very smart at gambling and due to this; he made dice from his father's bones. These dices only listened to Shakuni. The dice performed according to his dictates. Shakuni was given this command by his father. He was told by his father, "After I die, make dice from my bones, these dice will always obey you, no one will beat you in gambling." Shakuni followed this command and thus never lost in gambling.

Four sided dice were among the gambling and divination tools used by earlyman who carved them from nuts, wood, stones, ivory and bone. Six sided dice were invented later but four sided dice continued to be popular in Asia. In ancient Rome, elongated four-sided dice were called tali while the six sided dice were called tesserae. This magical dice gives output on the seven segment display based on the voice input**.**

Block Diagram of Transmitting Section:

The voice input is given to the GHOST REMOTE application which was in cell phone. The

application connects the voice to the Google database and after processingthe output is given to the Bluetooth module. The inbuilt Bluetooth module will generate the Bluetooth signal.
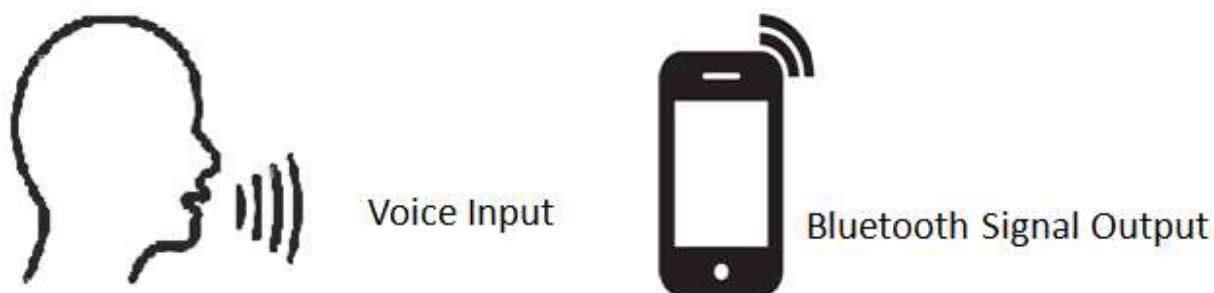

Fig. 1: Voice to Bluetooth output

Block Diagram of Receiving Section:

The receiver section basically contains Bluetooth Module and display. The signal received by the Bluetooth module is given to the microcontroller. The microcontroller will convert the Bluetooth signal to equivalent decimal value. The decimal value is displayed on the seven segment display
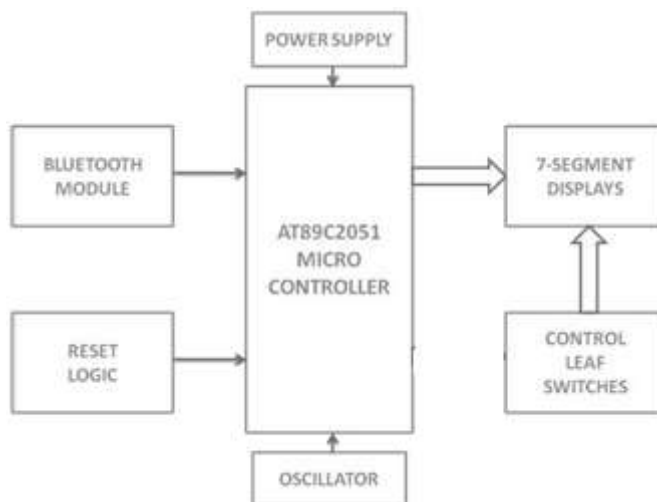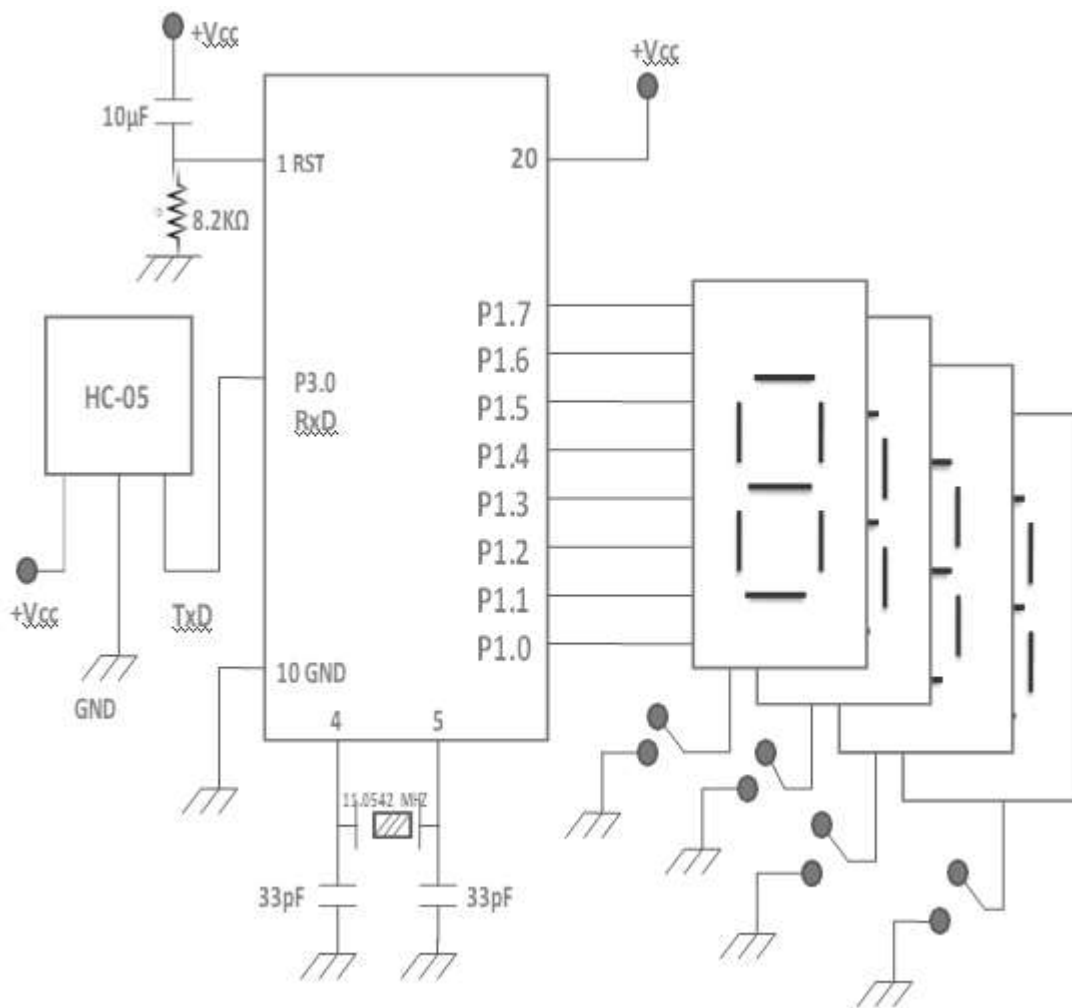

Fig 2: Receiver Block Diagram

CIRCUIT DIAGRAM:

Fig 3: Circuit Diagram

CIRCUIT DESCRIPTION:

The Bluetooth module HC-05 is connected to the Microcontroller. Four seven segment LEDs are connected to a port. All the seven segments will display the same number. Each Seven segment LEDs is having a leaf switch in series. The controller is operated with a clock frequency of 11.0542 M.Hz

OPERATION:

The voice input is given to the GHOST RIDER application. The application connects the voice to the Google database and after processing the output is given to the Rxd pin of Bluetooth module. The Bluetooth module processes the data and the output is given to the Rxd of micro controller. The micro controller captures the data and the data is passed to the seven segment display. But the number on the seven segment display glows only when the leaf switch is pressed.

HC-05 BLUETOOTH MODULE:

HC-05 module is an easy to use Bluetooth SPP (Serial Port Protocol) module, designed for transparent wireless serial connection setup.

Serial port Bluetooth module is fully qualified Bluetooth V2.0+EDR (Enhance Data Rate) 3Mbps Modulation with complete 2.4GHz radio transceiver and baseband. It uses CSR Blue core 04-External single chip Bluetooth system with CMOS technology and with AFH (Adaptive Frequency Hopping Feature). It has the footprint as small as 12.7mmx27mm. Hope it will simplify your overall design/development cycle.
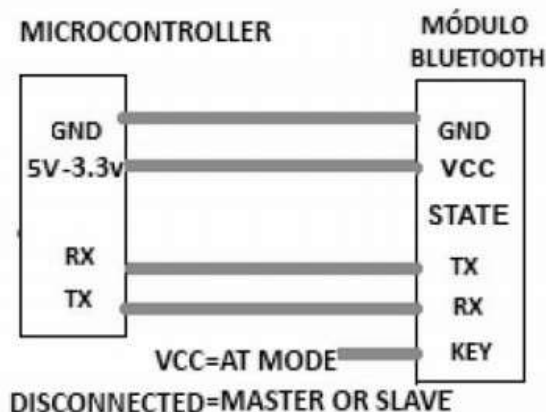

Fig: 4

TYPICAL APPLICATION CIRCUIT

Fig: 5

After connect the Bluetooth module, scan for new devices from the PC and you will find the module

with the device name "HC-05", after that, click to connect, if some message appears asking about "Pairing code" just put "1234" as default code. BLUE LED = ACTIVE (Blinking 500ms period inactive connection, change 1seg with active connection).
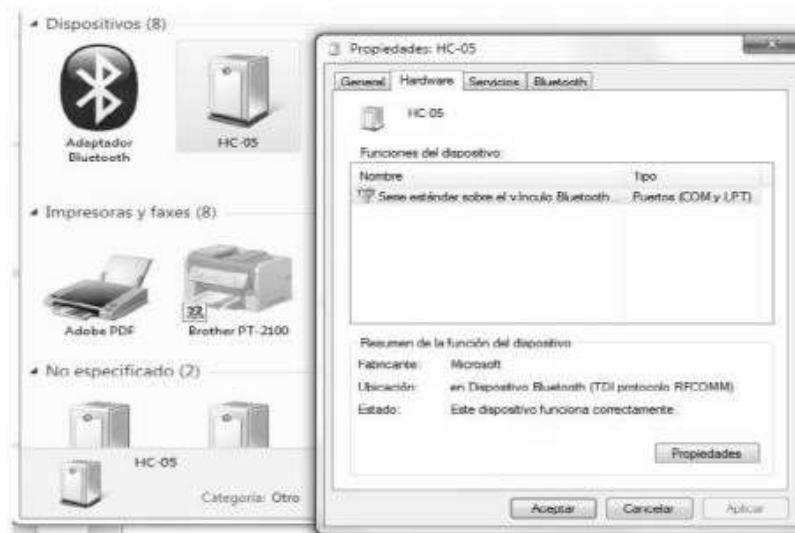

Fig: 6

Open a serial terminal and select the serial COM x port number that assignedWindows to Bluetooth Module.

Configure the serial terminal with these parameters:
➢ Baud rate: 9600.
➢ Data bits:8.
➢ Stop bit:1.
➢ Parity: No parity.

Open connection and you will be ready to send and receive data from module

Bluetooth like Serial Port COM

Fig: 7

How to get to **AT COMMAND** mode

1: Connect KEY pin to VCC.

2: Supply power to module. Then the module will enter into **AT MODE**. In thismode you have to use baud rate at 38400. In this way, user should change

the baud rate for SLAVE AND MASTER mode.How to set this module as "Master-Host" role

1: Input high level to KEY.

2: Supply power to the module. And the module will enter to **AT COMMAND**.3: Set the parameters of the hyper terminal or the other serial tools (baud

rate: 38400, data bit:8, stop bit:1, no parity bit, no Flow Control).

4: Sent the characters "AT+ROLE=1\r\n" through serial, then receive theCharacters "OK\r\n". Here, "\r\n" is the CRLF.

5: Sent the characters "AT+CMODE=1\r\n" through serial, then receive theCharacters "OK\r\n". Here, "\r\n" is the CRLF.

6: Default factory password passkey is: 1243, this must be the same in theBluetooth slave module if you want to pair it.

To read passkey use this command: "AT+PSWD?".

To Reset the password command sent the characters "AT+PSWD=XXXX".The password must be 4-bits

7: Leave free KEY, and supply power to the module again. Then this modulewill become slave role and wait to be discover it by the other module (masterrole) automatically to build the connection (baud rate:38400, data bit:8, stop bit:1, no parity bit, no Flow Control).

How to get to the standard communication mode

1: Leave free KEY, don't connect it to VDD neither GND.

2: Supply power to the module. Then the module will enter toCommunication mode. It can be used for pairing.

Notes

(1)   HC-05's command should end up with "\r\n". It means when you finish Programming, you should add terminator ("ENTER" or "0x0d 0x0a") to theprogram.

(2)   The most common commands for HC-05 are: AT+ROLE (set master–slave),AT+CMODE(set address pairing) , AT+PSWD (set password).

If you want the master module has the function of remembering slave module,the most simply way is: First, set AT+CMODE=1. Make the master module pair with the slave module. Second, set

AT+CMODE=0. Then the master module just can make pair with that specified slave module.

Entire project code was implemented using the MASM software.

Results

Fig: 8

Fig: 9

CONCLUSION

The voice input is given to the GHOST RIDER application. The application connects the voice to the Google database and after processing the output is given to the Rxd pin of Bluetooth module. The Bluetooth module processes the data and the output is given to the Rxd of micro controller. The micro controller captures the data and the data is passed to the Seven Segment display. But the number on the seven segment display glows only when the leaf switch is pressed.

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