DIGITAL PEN

Store your handwritten data digitally

Deepesh Singh (Team STAG)

Introduction

The motive of the project is to make a handheld device (pen like) which enables the user to write on almost any surface and store this data digitally.
This can be achieved by tweaking the circuit of a wireless optical mouse. This data will then be synced with a website and an android app (if time permits).

Components Required

1. Wireless optical Mouse - 3
2. PIC microcontroller - 3
3. EEPROM - 3
4. Breadboard - 2
5. Jumper Wires
6. PCB
7. Solder and Solder Wire

APPROX COST :- Rs . 6000

Skills Required

1. Basic Electronics
2. Knowledge of micro controllers and memory
3. Website Development
4. Android Development

Implementation Step

Week 1:

1. Read about basic electronics and especially micro controllers and EEPROM
2. Study the circuit of an optical wireless mouse
3. Try to implement the circuit of this mouse on breadboard

Week 2:

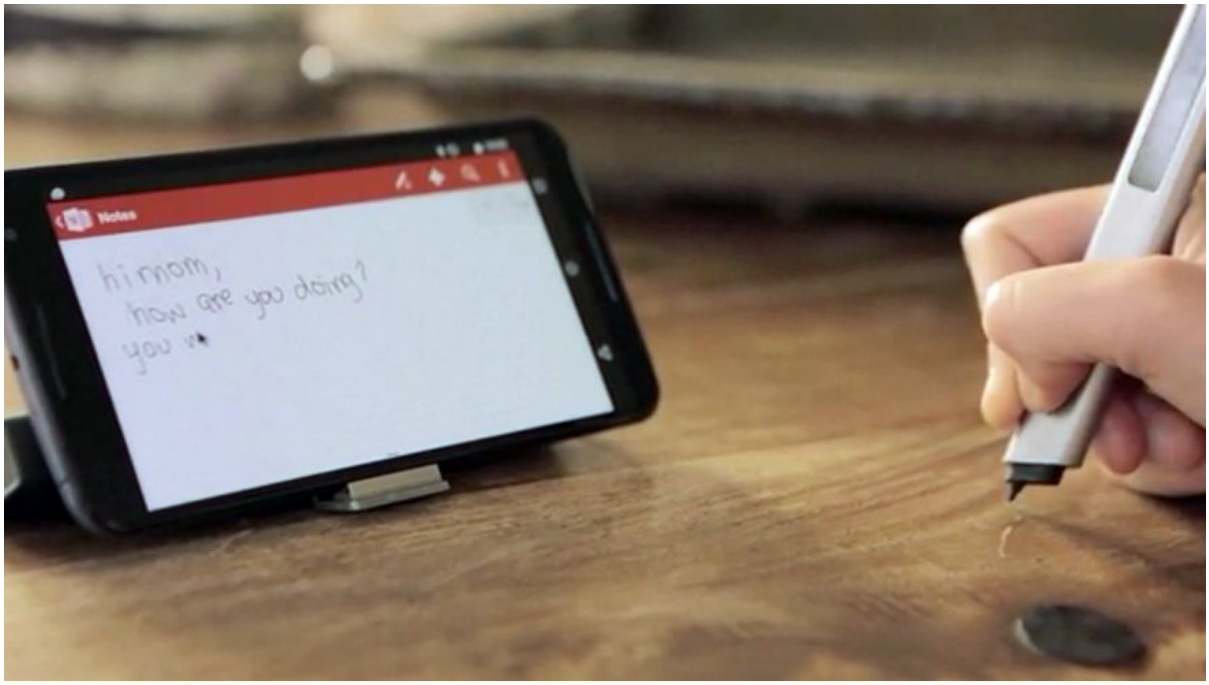
1. Try to add PIC micro controller and EEPROM in this breadboard circuit
2. Debug this circuit

Week 3 & 4:

1. Store this data from breadboard in PC
2. Make a website to sync this data

Week 5:

1. Debug the circuit and code
2. Make an android app to sync data between website and app



In this project basically , we make a digital pen(from an optical wireless mouse) which can be used on any surface to write . The mouse movements are imitated as if the mouse is drawing in Ms-Paint and hence the mouse movements are saved as handwriting itself in the computer .

The challenge in this project is to mainly store the data (movements of mouse i.e handwriting) when the digital pen and computer are not in range. To solve this , an EEPROM has been used to store this data . The EEPROM will allow the data to go once the pen and PC are in range . At first , the aim of the project will be to sync data between pen and PC using Bluetooth itself , later on , Wifi technology would be considered (if time permits). This data on the PC will then be synced with a website (and android app , again if time permits) . This is the description of the digital pen .