

CSP 315

**Mobile
Text to Braille Converter**

Submitted By

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Abstract

The task of our project is to create a product that can enable blind-deaf to use mobile phones with better ease. We plan to build a Braille display which can reflect the contents of a mobile display, so that it can be read and manipulated even by the blind-deaf.

Specifications

- Software Platform on the Mobile: J2ME (Java Micro Edition).
- Braille Refreshable Cells.
- USB Bluetooth Module(to communicate with the phone).
- ARM Microcontroller(acts as the Bluetooth module host and converter to Braille).

Methodology

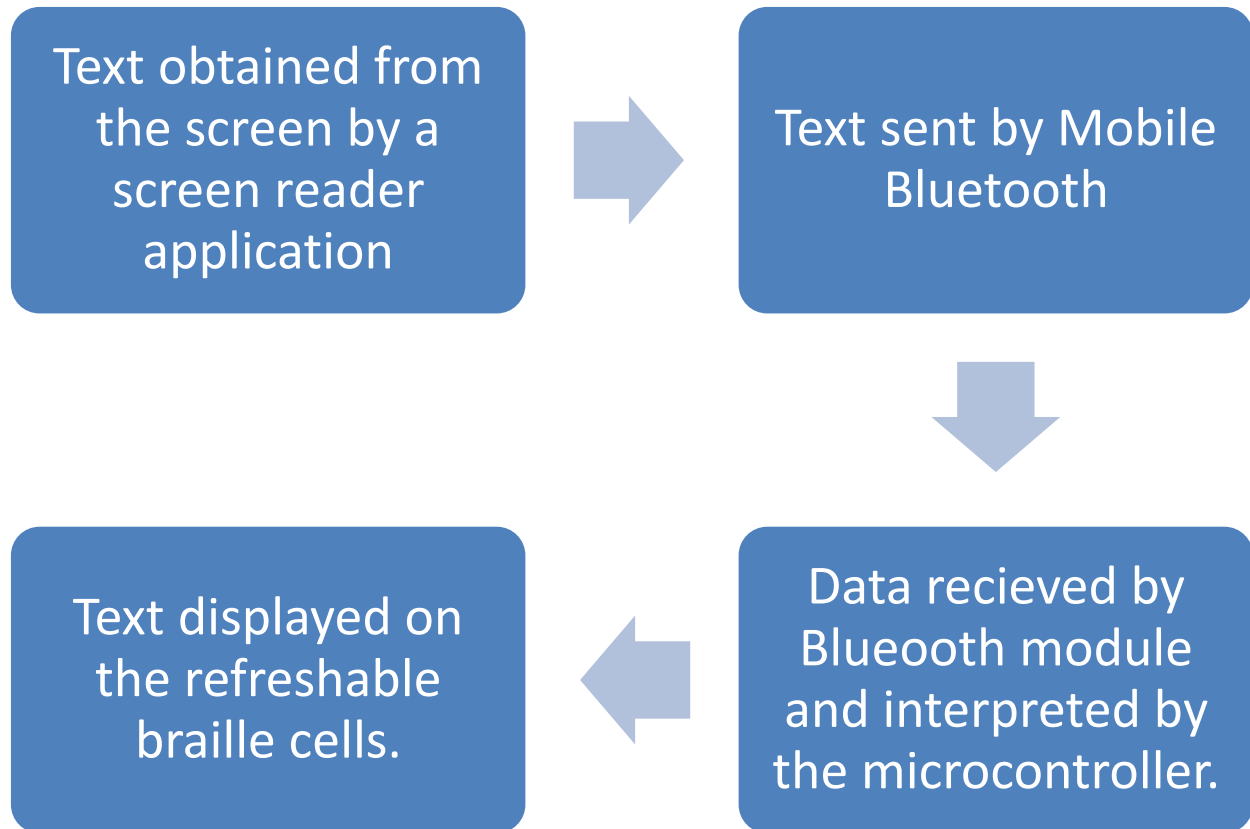
-We would work on the Text to Braille Converter. In this we are planning to read the text from the display of the cell phone, transmit it via Bluetooth to the Bluetooth receiver which would parse the received data to the Refreshable Braille cells.

-We have identified mainly 2 areas - the software side (from the cell phone's end) and the hardware side (Bluetooth interface to communicate with the Braille cell).

-On the software side , we are planning to use JAVA J2ME for mobile devices to develop an application which would send the text to Braille Cells via Bluetooth.

-On the hardware side, we are planning to use a ARM microcontroller to host a Bluetooth module and pass the information to the Braille Display.

Proposed block diagram



Major components

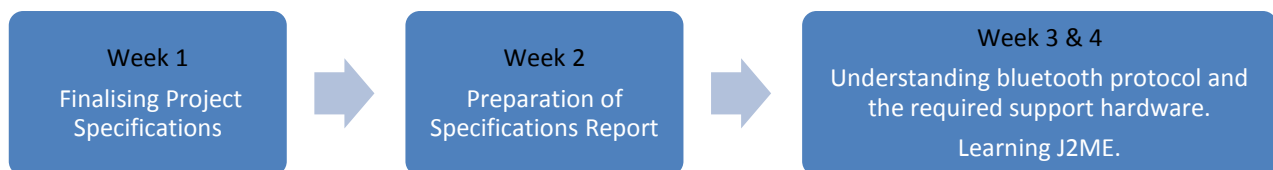
- Refreshable Braille Cells / Braille Display .
- Bluetooth Module
- ARM Microcontroller (ARM 3S3651).

Major tasks and assignment to individual group members

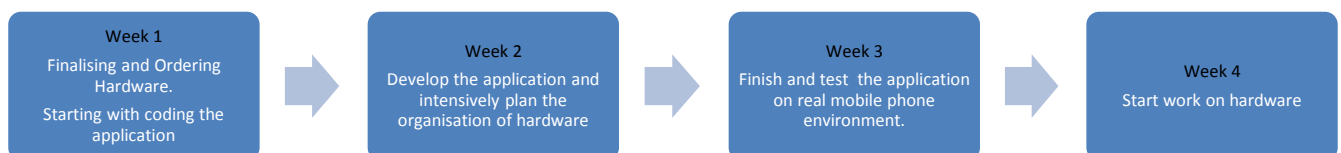
1. Software Development : Himanshu Nayar, Anshul Malhotra
2. Hardware Interfacing : Akshay Kumar, Varun Singla

Time line (PERT chart)

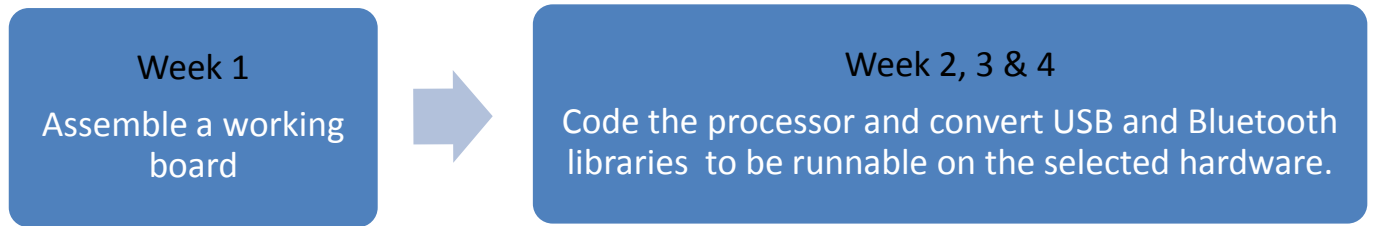
August:



September:



October:



November:

Deploy, Test
and Debug

WebLink

www.mobile2braille.weebly.com