**Braille Smart Phone**

In this era of evolving open hardware technoologies, there has been many complex probelms addressed in low cost models. By the statistical numbers of the visually challanged in our country, we have been strongly motivated to study their problems that they face in this smartly developed society. We have been inspired by the efforts put by them in creating braille script which made thier life easy. So we have ideated to develop braille scripting to enable them both to send and receive text based messages in a telephony device, a smartphone. Braille smartphone ,naming after the inspiration we have prepared a prototype that illustrates the braille based text communication device. Even if we have voice assistants of smart phones that could solve thier problems they provide various un usable services for a visullay impaired user. Here our braille smart phone is exclusivley designed for visually impaired and all the usefull services for them are embedded into this communicating device. This device contains the following modules:

**\* Keypad           :**to input the text with a braille reference(6 – point notation)

**\* Servo Motors :** to illustrate the braille button movement on pop-up display

**\* Arduino           :** to connect the circuit

**\* GSM Module**: to enable telephony services

The working principle has two major parts. The first part of the principle is to take the **text input** and the other is to **display / print output**. **Text input**has to be given using the keypad of the phone. Those messages would be transmitted to a contact by GSM module. **Text output** shall be sensed by the braille buttons embedded and programmed on the other part of the screen. As a part of future work, there have been few features like Voice assistant, GPS and Calling service are yet to be embedded for better usage in near future.