

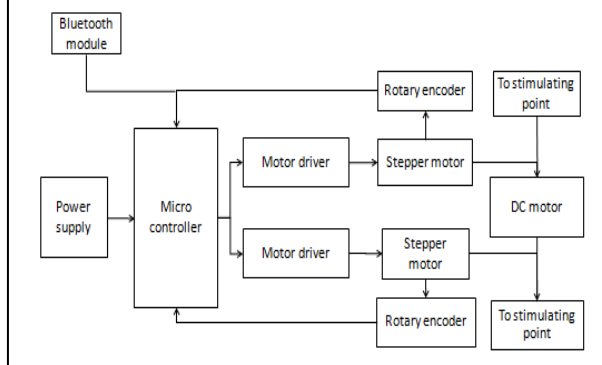
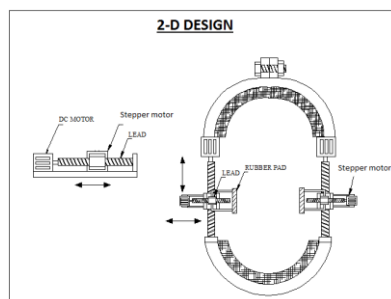
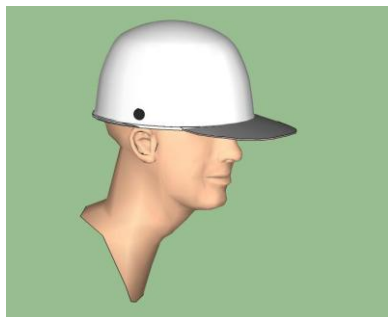


Dr. N.G.P. INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF BIOMEDICAL ENGINEERING

Personal Abetment for Parkinson's and Geriatric Population



Description of the Project:

- The main idea is to make the people with Parkinson's to move out of their room and go freely without the retropulsion. Currently deep brain stimulation is the treatment procedure but, is much costlier, invasive and requires electrodes and pacemaker. Medications like levodopa hinder the natural dopamine secretion with side effects.
- The proposed system addresses the limitations in the current procedures, offering non-invasive mechanical stimulation based on ancient medicinal procedure **Varma**.
- A wearable head cap is designed to offer mechanical stimulus. The working can be adjusted wirelessly using Bluetooth. Geriatrics with similar symptoms can also be benefitted.
- The required pressure is obtained by adjusting the steps of the stepper motor, and is controlled by PIC16F877A microcontroller.
- The desired pressure delivered to the patients from the device is verified with the expert's pressure level practiced in varmology.

Tools Used: Raspberry Pi, Voice Recognition Module, Bluetooth Module.

Project Guide

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