

MAY

ADVANCED MEDICAL DEVICE LINKED TO A TECHNICAL SYSTEM TO HELP PATIENTS WITH MULTIPLE SCLEROSIS

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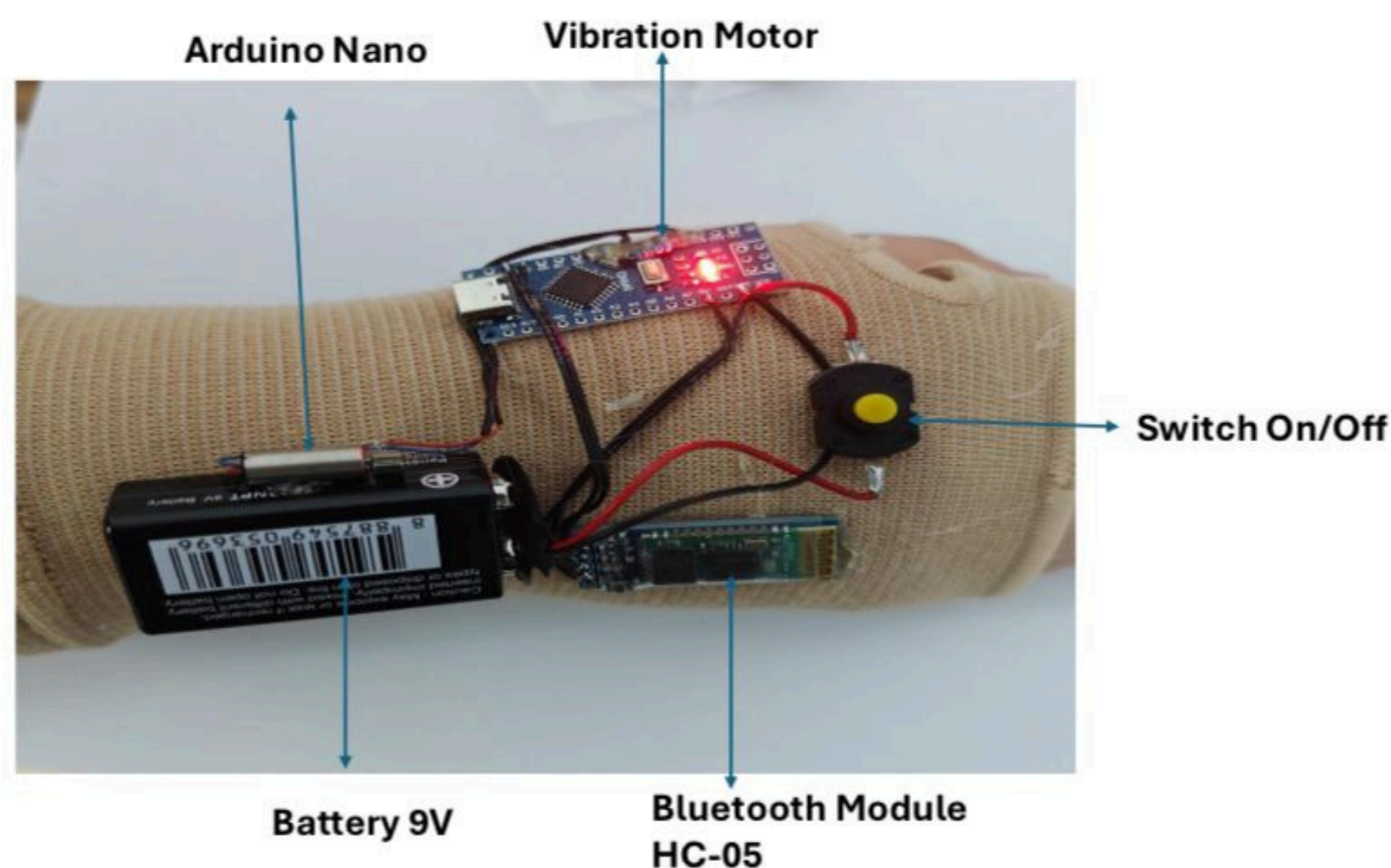
PROTOTYPE/INVENTION

Introducing May—a wearable device for people with multiple sclerosis (MS) that provides soothing electrical massage to reduce muscle pain and stiffness. Easily controlled through a smartphone app, users can adjust intensity and track progress.

Key Benefits:

- Symptom Relief:** Reduces muscle pain and stiffness for better daily activity.
- Improved Quality of Life:** Non-invasive, easy-to-use, and effective symptom management.
- Real-Time Monitoring:** Tracks health data for patients and doctors.
- Personalized Care:** Customizable for individual patient needs.

May empowers MS patients with comfort and control, enhancing their daily lives.



COMPONENTS

Arduino Nano:

This is the microcontroller that is used in our project. All our code is uploaded in this board and all the components are connected to this board for receiving and processing data.

Bluetooth Module HC-05:

Since our project needed wireless connectivity, we have used Bluetooth module to add wireless functionality. This module will receive messages from the mobile application and then send it to the Arduino Nano board, which will then turn the vibration on or off.

Vibration Motor:

This motor is a low-voltage, cost-friendly device, which is used in our project to give massage to its user upon turning it on.

Battery 9V:

To power our circuit, we have used a 9 volt battery, which is connected to the Arduino Nano with an on/off switch in between.

Switch on/off:

This is a simple on/off switch, used to open or close our circuit, which will lead to power being supplied to the Arduino Nano or not.

RESULTS & DISCUSSION

MAY App – Simple, Easy, Effective

1. Install the MAY app on your smartphone.
 2. Turn on the device's circuit to power the Bluetooth module.
 3. Pair with "HC-05" in your Bluetooth settings using the pin "1234".
 4. Open the MAY app and tap "Start".
 5. Wait for the "Connected" notification.
 6. Use the "مساج" button to control the massage motor on or off.
- That's it—your personalized relief is just a tap away!*



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