Electronic Voting Machine (EVM)

This project demonstrates an Electronic Voting Machine (EVM) built using Arduino Uno, push buttons, a breadboard, wires, and a small LCD. It offers a cost-effective and simple alternative to traditional paper-based voting, reducing the need for manual labor.

Key Features

- **Cost-Efficient:** Eliminates the need for paper ballots, cutting down on printing and distribution costs.
- **Customizable:** Allows adjustments for different candidates and symbols, making it versatile for various elections.
- **User-Friendly:** The LCD provides a clear and easy-to-navigate interface for casting votes and viewing results.

Materials Needed:

1. Arduino UNO Board
2. 16x2 LCD Display
3. Push Buttons (one per candidate plus one extra)
4. 10k Potentiometer
5. Connecting Wires
6. Breadboard

How It Works:

1. The LCD shows candidate names and symbols.
2. Voters press buttons to cast their votes.
3. Votes are counted and updated for each candidate.
4. A specific button (S4) ends the voting session.
5. The LCD displays the results and the candidate with the most votes.

Feel free to modify the code to change symbols and adjust the number of candidates.

Future Improvements

- **Upgrade to ESP32 or Node MCU:** Transition to a more powerful ESP32 board for better performance and connectivity.
- **Blockchain Integration:** Use Polygon blockchain for secure, transparent, and tamper-proof voting records. Each vote will be recorded on the blockchain, ensuring data integrity.
- **Enhanced Security:** Blockchain technology will protect data from unauthorized changes and ensure transparent, verifiable results.