



Electronic Voting Machine

[Source: IE](#)

Why in News?

In recent years, there has been growing discussion and analysis surrounding the integrity and dependability of [Electronic Voting Machines \(EVMs\)](#) used during elections in India.

What is an Electronic Voting Machine?

- **About: EVM** is a device used to record votes electronically. They were first used in **the Paravur Assembly Constituency of Kerala** in the year 1982.
 - Since 1998, the Election Commission has increasingly used EMVs instead of ballot boxes.
 - In 2003, all state elections and by-elections were held using EVMs.
 - Encouraged by this, in **2004**, the Commission took a historic decision to **use only EVMs for the Lok Sabha elections.**
- **Development:** It has been devised and designed by the **Technical Experts Committee (TEC)** of the [Election Commission](#) in collaboration with two Public Sector undertakings: **Bharat Electronics Ltd**, Bangalore (under Ministry of Defence) and **Electronic Corporation of India Ltd**, Hyderabad (under Department of Atomic Energy).
- **Functionality:** It has two parts: a **Control Unit** and a **Balloting Unit** connected by a cable.
 - The Control Unit stays with the polling officer, while the Balloting Unit is in the voting booth.
 - The voter has to simply press the **blue button** on the Ballot Unit against the candidate and symbol of his choice and the vote is recorded.
- **Key Features:**
 - An EVM being used by ECI can record a maximum of **2,000 votes**.
 - They do not require electricity. They run on an ordinary battery assembled by
 - **Bharat Electronics Limited/Electronics Corporation of India Limited.**
 - The microchip used in EVMs is a **one-time programmable/masked chip**, which can neither be read nor overwritten.
 - Furthermore, the EVMs are stand-alone machines and there is **no operating system** used in these machines.
- **Benefits:**
 - **Accuracy:** EVMs eliminate the occurrence of '**Invalid Votes**' seen frequently with [paper ballots](#), ensuring a more accurate reflection of voter choice and reducing complaints and legal disputes.
 - **Efficiency:** EVMs streamline the voting process, **making it faster and more efficient.** They eliminate the need for manual counting, reducing the time required to declare election results.
 - **Transparency:** EVMs enhance transparency in the electoral process by providing a **clear and verifiable record of votes cast.** With features like VVPAT, voters can verify that their votes are recorded accurately.
 - **Cost-effectiveness:** EVMs offer cost savings in terms of **paper, printing, transportation, and storage**, as they eliminate the need for millions of printed ballot papers for each election cycle.
- **Concerns:**

- **Lack of Transparency:** Some critics argue that the **inner workings of EVMs are not sufficiently transparent**, leading to doubts about the accuracy and fairness of the voting process.
- **Reliability:** Questions have been raised about the reliability of EVMs, including the possibility of **technical malfunctions** or errors that could affect the outcome of an election.
- **Trust Issues:** Despite security measures, there is still a lack of trust among some political parties and voters regarding the reliability and authenticity of EVMs, leading to calls for additional safeguards or alternative voting methods.

What is VVPAT?

- **About:** [Voter Verifiable Paper Audit Trail \(VVPAT\)](#) is an independent system attached with the EVM that allow the voters to verify that their votes are cast as intended.
 - It was introduced in the bye-election of the **Noksen Assembly Constituency** of Nagaland in 2013.
 - In the 2019 Lok Sabha elections, VVPATs were used in all the constituencies.
- **Functionality:** When a vote is cast, a slip is printed containing the serial number, name and symbol of the candidate and **remains exposed through a transparent window for 7 seconds**.
 - Thereafter, the printed slip automatically gets cut and falls in the sealed drop box of the VVPAT.
 - The machines can be accessed by polling officers only.
- **Related Supreme Court Ruling:** In a 2013 **Subramanian Swamy V/s ECI** case, the [Supreme Court](#) emphasised the necessity of implementing VVPAT in elections conducted through EVMs.
 - Presently, the **M3 Model of ECI-EVM and VVPAT are used**.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q. Consider the following statements: (2017)

1. The Election Commission of India is a five-member body.
2. The Union Ministry of Home Affairs decides the election schedule for the conduct of both general elections and bye-elections.
3. Election Commission resolves the disputes relating to splits/mergers of recognised political parties.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 3 only

Ans: (d)