

# <u>Iournal Publication of International Research for Engineering and Management</u> (JOIREM)

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# STEM DIY Robotics Projects in India 2025 - 2026

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#### Abstract -

This article explores some of the most innovative STEM DIY kits and science fair projects available in India for 2025–2026. From robotic arms to CNC plotters and spider robots, these kits help students and hobbyists develop hands-on engineering skills.

#### Introduction

STEM education in India is evolving rapidly, with hands-on learning becoming the core of school STEM projects and science fair projects in India. As students prepare for the best projects 2025, the demand for engaging, practical, and skill-building DIY kits India has increased significantly. Educational kits not only provide concept development but also bridge the gap between theory and real-world application. In this article, we review four of the most impactful DIY robotics kits offered in India: the Spider Robot Combo Kit, Mini CNC Plotter, Big Robotic Arm Combo Kit, and Small Robotic Arm Combo Kit. Each of these projects is designed to enhance creativity, problem-solving, and innovation, making them ideal for both school competitions and personal exploration.

### **Spider Robot Combo Kit**

- \*\*Features:\*\*
- 8-legged spider-inspired robot
- Hands-on assembly with mechanical and electronic parts
- Suitable for students learning robotics and mechanics
- \*\*Benefits:\*\*
- Encourages creativity and logical thinking
- Provides practical understanding of robotic movement
- Ideal for school science projects
- \*\*Target Audience:\*\* Students from middle school to engineering beginners

Source: https://smartxprokits.in/spider-robot-combo-kit/

### **Mini CNC Plotter**

- \*\*Features:\*\*
- 3D printed compact engraving machine
- Includes electronics and motors
- Capable of simple plotting and engraving
- \*\*Benefits:\*\*
- Teaches automation concepts
- Practical exposure to CNC and robotics
- Great for engineering and diploma students
- \*\*Target Audience:\*\* Engineering students, hobbyists, and DIY makers

Source: <a href="https://smartxprokits.in/mini-cnc-plotter-for-diy-projects-3d-printed-compact-engraving-machine-electronics-motor-included-052-copy/">https://smartxprokits.in/mini-cnc-plotter-for-diy-projects-3d-printed-compact-engraving-machine-electronics-motor-included-052-copy/</a>

### Big Robotic Arm Combo Kit

- \*\*Features:\*\*
- Large robotic arm with multiple joints
- Simulates industrial automation
- DIY assembly with provided parts
- \*\*Benefits:\*\*
- Introduces industrial robotics concepts
- Helps develop motor control understanding
- Useful for engineering projects and science fairs
- \*\*Target Audience:\*\* High school, engineering, and robotics enthusiasts

Source: <a href="https://smartxprokits.in/big-robotic-arm-combo-kit/">https://smartxprokits.in/big-robotic-arm-combo-kit/</a>

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#### **Small Robotic Arm Combo Kit**

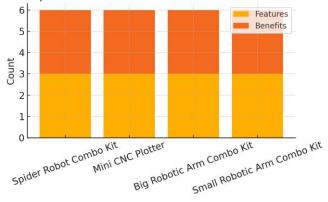
- \*\*Features:\*\*
- Compact robotic arm design
- Includes servo motors for joint control
- DIY friendly and easy to assemble
- \*\*Benefits:\*\*
- Affordable introduction to robotics
- Enhances problem-solving skills
- Perfect for beginners and school projects
- \*\*Target Audience:\*\* School students, beginners, and hobbyists

Source: <a href="https://smartxprokits.in/small-robotic-arm-combo-kit/">https://smartxprokits.in/small-robotic-arm-combo-kit/</a>

## **Visual Comparison**

The following chart compares the number of features and benefits offered by each DIY robotics kit:





## References

- 1. <a href="https://smartxprokits.in/spider-robot-combo-kit/">https://smartxprokits.in/spider-robot-combo-kit/</a>
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- 3. <a href="https://smartxprokits.in/big-robotic-arm-combo-kit/">https://smartxprokits.in/big-robotic-arm-combo-kit/</a>
- 4. <a href="https://smartxprokits.in/small-robotic-arm-combo-kit/">https://smartxprokits.in/small-robotic-arm-combo-kit/</a>

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