



A new **DIMENSION** to  
your **LEARNING**

INDIAN SCHOOL OF ROBOTICS  
**LEGO EV3 Course**

**Curriculum**  
38 Sessions

**COURSE TITLE**

# Core EV3

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Session Plan For

ACADEMIC YEAR

**2020-21**

EV3 Core Set is a hands-on, cross-curricular STEM solution that engages students by providing the resources to design, build and program their creations while helping them develop essential skills such as creativity, critical thinking, collaboration, and communication. A Core Set supports two students and comes with a getting-started guide, video tutorials, and standards-aligned lesson plans.

The system includes the EV3 Intelligent Brick, a compact and powerful programmable computer that makes it possible to control motors and collect sensor feedback using the intuitive icon-based programming and data logging software that is delivered with the set.

The set is delivered in a sturdy storage bin with a sorting tray, three Servo Motors, five Sensors (Gyro, Ultrasonic, Color and 2x Touch), a EV3 Rechargeable DC Battery (with charging cable) and connecting cables.

Building instructions and other resources are also provided.

**All Students will be provided with the certification on successful completion of the course.**

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<b>BEGINNER</b>	Session 1	Mindstorms EV3 & its Parts
	Session 2	Forward & Backward Motion
	Session 3	Steer the Bot
	Session 4	Display on EV3 screen
	Session 5	Touch Sensor ~ Bumpbot
	Session 6	Color Sensor
	Session 7	Repeated Actions (Loops)
	Session 8	Line Following Robot
<b>PROFICIENT</b>	Session 9	DIY 'Line Follower that Stops'
	Session 10	IR Sensor ~ Obstacle Avoidance
	Session 11	Interfacing Motion Sensor
	Session 12	Concept of Gear - I
	Session 13	Concept of Gear - II
	Session 14	Building a Tri Bot
	Session 15	Testing a Tri bot
	Session 16	Simple Grabbers
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	Session 19	Grabber using Worm Gear
	Session 20	Advance Line Following
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	Session 23	Bot Ball I (Building)
	Session 24	Bot Ball I (Programming)
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	Session 28	Advance Programming II
	Session 29	Four Wheeled Gear Robot
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