



DPS-Monarch/CIR/SCY/2025-26/307

Date: 19.10.2025

From Principal's desk....

Robotics Assessment for Term 2

Dear Parents,

Greetings of the day!

Kindly find below the Robotics Term 2 Assessment Schedule.

The assessment will be conducted during the regular robotics periods as per the dates mentioned below.

Robotics Assessment – Term 2 Schedule

Sr. No.	Grade	Exam Date
1	Grade 1	5-Feb-2026
2	Grade 2	2-Feb-2026
3	Grade 3	1-Feb-2026
4	Grade 4	3-Feb-2026
5	Grades 5 to 8	5-Feb-2026
6	Grades 9 and 11	28-Jan-2026
7	Grades 10 and 12	12-Nov-2025

Robotics Certification – Grading Criteria

Grades for the **Robotics Certificates** will be awarded based on the marks obtained in **Term 1 and 2 Assessment**, as per the following criteria:

For Grades 1 and 2	
Level	Interpretation
Beginner	Tries to achieve the competency and associated learning outcomes with a lot of support from teachers.
Progressing	Achieves the competency and associated learning outcomes with occasional/some support from teachers.
Proficient	Achieves the competency and associated learning outcomes on his/her own.

For Grades 3 to 10	
Mark (%) Range	Grade
81–100%	A
61–80%	B
41–60%	C
21–40%	D
20% and below	E

For Grades 11 and 12	
Mark (%) Range	Grade
91–100%	A1
81–90%	A2
71–80%	B1
61–70%	B2
51–60%	C1
41–50%	C2
33-40%	D
32% and below	E*

Star Performer in Robotics

One student from each grade will be recognized as the Star Performer in Robotics.

This recognition will be based on the student's overall performance in Robotics classes, active participation in robotics events, and involvement in competitions throughout the academic year.

The title celebrates creativity, innovation, teamwork, and consistent enthusiasm towards robotics and technology.

Robotics Assessment Syllabus - Term 2

Assessment Structure:

- **Theory:** 10 Marks (MCQ-based)
- **Practical + Viva:** 20 Marks (Hands-on activity, demonstration, and viva questions)
- **Total:** 30 Marks

The detailed syllabus for each grade is mentioned below for your reference.

Please note that notes will be shared through Zenda app.

Robotics Syllabus Grades 1 to 12 (Term 2)

- **Grade 1 – LEGO Spike Essentials**

Topics Covered:

- Introduction to Robotics: What is a robot, uses, examples in daily life
- Parts of a Robot: Sensors, motors, controller (hub), battery
- LEGO Spike Essentials Kit: Identifying parts, building simple models
- Basic Programming: Using blocks to move, display, and play sound

Practical + Viva: Build a simple LEGO Spike model and explain its parts and functions

- **Grade 2 – LEGO Boost Creative Toolbox**

Topics Covered:

- Introduction to Robotics: Importance and examples in daily life
- LEGO Boost Components: Motors, sensors, hub
- Building and Coding Simple Models
- Basic Programming: Using block-based coding to move, display, and sense

Practical + Viva: Build and program a simple LEGO Boost model and explain sensors and code logic

- **Grade 3 – LEGO Spike Essentials**

Topics Covered:

- Introduction to Robotics and Automation
- LEGO Spike Parts: Hub, motors, sensors
- Building Interactive Models
- Coding Concepts: Loops, events, sensor-based actions

Practical + Viva: Build and code a working LEGO Spike model; explain sensor functions and program behavior

- **Grade 4 – Avishkar MEX Robotics & AI + Manual Robotics**

Topics Covered:

- Avishkar MEX Robotics & AI Kit: Assembling robots, basic AI projects (line following, obstacle detection)
- Manual Robotics Kit: Motors, sensors, basic assembly
- Introduction to Robotics Concepts and Simple Coding

Practical + Viva: Build and demonstrate a simple robot; explain working and AI functionality

- **Grade 5 – Manual Robotics + Pictoblox with AI Projects**

Topics Covered:

- Manual Robotics Kit: Assembling simple robots, understanding motors and sensors
- Pictoblox Programming: Block-based coding, AI-based projects (object recognition, simple AI experiments)
- Basic Robotics Concepts and Coding Logic

Practical + Viva: Build and program a simple robot; demonstrate AI project and explain working

- **Grade 6 – Electronics Circuits + MIT App Inventor**

Topics Covered:

- Basics of Electronics and Circuit Design
- Breadboard Components: Resistors, LEDs, sensors
- Circuit Simulation on TinkerCAD
- Mobile App Development: MIT App Inventor (simple apps with buttons, sensors, and logic blocks)

Practical + Viva: Breadboard circuit simulation; create and explain a simple app

- **Grades 7–8 – Arduino-based Robotics + TinkerCAD Simulation**

Topics Covered:

- Introduction to Arduino
- Electronic Components: LEDs, Buzzer, RGB LED, Motors, Sensors
- Robot Control using Sensors and Motors
- Circuit Design, Programming, and Simulation on TinkerCAD
- Building Functional Arduino-based Robots

Practical + Viva: Circuit simulation, building, and programming of Arduino-based robot; explain components and code logic

- **Grade 9 – Arduino-based Robotics**

Topics Covered:

- Arduino Programming and Circuit Integration
- Metal Robot Kits: Motors, Sensors, and Control Mechanisms
- Robot Design and Construction
- Circuit Simulation on Tinkercad

Practical + Viva: Build and program a functional robot; simulate circuit and explain working

- **Grades 10–12 – IoT with NodeMCU**

Topics Covered:

- Introduction to IoT (Internet of Things)
- NodeMCU (ESP8266) Programming
- Working with DHT11 Sensor, Servo Motor, and ThingSpeak Cloud
- Arduino IoT Cloud Setup and Data Visualization
- IoT-based Automation and Monitoring Projects

Practical + Viva: Build an IoT project using NodeMCU and sensors; monitor data on cloud and explain working

We look forward to your continued support in enhancing the learning experience of our students.

Warm regards,



Meenal Bakshi
Principal

Our Motto

Education with a difference

Our Vision

DPS Monarch International School will deliver learning excellence that is child-centric, value-based, and technology-driven.

Our Mission

DPS Monarch International School will ensure that students add value to their community and make the world a better place to live.
