


Junior Engineers: Kids Robotics Class


For Beginners and Intermediate Learners

Instructor: Teacher Mohamad Mamdouh

 Starting 6th December 2025
(Every Saturday & Sunday)

 9.00 a.m. – 11.00 a.m. (*Beginners*)
11.00 a.m. – 1.00 p.m. (*Intermediate*)

Attend Any Day -
Each Session Stands Alone

 RM50 per session

 Course Conducted
in English

 Refreshments and
Lunch Included



About This Course

Ignite curiosity and confidence with LEGO SPIKE Prime, a hands-on robotics kit designed to make STEM fun and accessible. Students will build, code and problem-solve using LEGO bricks, intelligent sensors, programmable motors and a powerful hub. Through engaging projects and challenges, learners will develop real-world engineering and coding skills in an interactive, team-based environment. This course also uses the same platform featured in national robotics competitions across Malaysia, giving students a head start in competitive STEM arenas.



Objective

- Introduce students to fundamental robotics and programming concepts using LEGO SPIKE Prime.
- Foster problem-solving, critical thinking and creativity through project-based learning.
- Develop teamwork and communication skills by engaging in collaborative design challenges.
- Inspire students to explore STEM fields through real-world applications of robotics.

Learning Methodologies

- 1 Hands-On Learning**
Students actively build and code their own robotic creations, reinforcing theoretical concepts through physical application.
- 2 Collaborative Teamwork**
Students work in pairs to encourage peer learning, creativity and communication.
- 3 Scaffolded Progression**
Lessons are structured to increase in complexity, allowing students to gradually develop competence and confidence.
- 4 Instructor-Guided Exploration**
Instructors provide direct teaching, facilitate group discussions and offer real-time support during problem-solving activities.

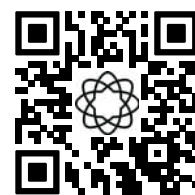
Learning Outcomes

By the end of this course, students will be able to:

- Apply the engineering design cycle: define a problem, prototype, test, evaluate and iterate.
- Use programming constructs such as sequences, loops, conditionals, variables, waits, arrays and sensor-based decisions.
- Develop computational thinking skills: decomposition, debugging, pattern recognition and algorithm design.
- Work collaboratively, communicate design decisions and reflect on design effectiveness.

Target Participants

Learners aged 7-16 who are interested in robotics and coding.



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to sign up

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