



## ROBOTICS

### High Performance Program

The need for students to learn more about robotics and technology has never been more important. We live in a world of increasing technological change and the opportunities for students with skills and knowledge in these areas is advantageous for their future employment prospects.

#### THE CURRICULUM

Students will be challenged with increasing levels of rigor and complexity as they progress through lower school and we introduce students to basic programming as well as problem solving strategies using a variety of robots and computer programs that expose them to the ever evolving and technologically changing environment that is Robotics.

This is a very practical, hands-on course and students will work in groups to complete many of the tasks involved.

Topics include, but are not limited to:

- Simple Machines
- Motor and Sensor Control
- Green City Challenge
- Production Lines
- Mining and Sentry Robots

#### CODING

An integral component of Robotics is the use of Coding throughout. Computer coding has become a national focus and Wanneroo SC has developed an exciting and engaging program in lower school to introduce and inspire our students to explore this world. Our humanoid robot – NAO is our pride and joy. All students will have the opportunity to program and code Nao to perform a range of tasks.

Our Robots include:

- Lego NXT
- Lego EV3
- Sphero
- Little Bits
- Arduino Uno, Esplora and Robot Control
- NAO – our humanoid robot
- Micro Bits

Students will have the opportunity to participate in:

- Robocup Junior Competition in Dance, Rescue or Soccer hosted by Curtin University

Applicants need to complete a Robotics application form and the general enrolment form (included in this package).

Alternatively, the forms can be located on the school website.