

FIRST® LEGO® League (FLL) Challenge – 2020 RePlay

Experienced AARAS Education robotics program students from Girraween Public School, Carlingford Public School, Darcy Road Public School, Greystanes Public School, and St Mary's Rydalmere were invited to participate in the First® Lego® League (FLL) Challenge program this year.



Coaches from the Australian Academy of Robotics and STEM Education mentored these students from early in the year to prepare them to participate in this global program. The pandemic and the school disruptions made it particularly challenging, but the team persisted and continued their learning via Zoom.

The FLL Challenge program is based on a real-world problem and consists of 4 components.

1. Innovation Project
2. Core Values
3. Robot Design
4. Robot Game

For the Innovation Project, students research and explore real world problems. They showcase their skills and knowledge by identifying and developing a creative and innovative solution for an existing idea or a new idea, to solve the problem at hand and present it to the community around them.

The most exciting parts for most students are the Robot Design and Robot Game, where students need to build and program their robot to complete as many missions as possible. Core values (read 'soft skills') are at the heart of everything the team does.

Team Draco Dynamites (Girraween, Darcy Road & Greystanes PS students)



The Draco Dynamites team found through their research that concussions were a major reason why kids are not motivated to play a lot of sports. So, they came up with a solution that would help protect kids from injuries associated with concussions. Their solution consisted of a cap/helmet which would have sensors to sense incoming persons or objects. The sensors

Draco Dynamites team interacting with the Judge Panel via Zoom.

would automatically trigger air bags to be inflated in the helmet to protect their head.

The team also presented their ideas to experts such as Doctors and athletes as well as their peers and improved their prototype.



Left to Right - Hiransh, Ansh, Pranav, Jairus, Mateo, Bharghav, Kianna, Krithika

The Draco Dynamites team had a great run with their Robot Game coming **7th out of 30 teams** who participated in the FLL Sydney Regional on 22nd November. Draco Dynamites team was one of the youngest team with most students in year 4 or 5 beating several high school teams.

We congratulate all students and their parents for showing resilience, persistence, and support throughout the year and we look forward to next year's FLL challenge.