

A Lego Radio Telescope Simulator

This project will design and build the hardware aspects of a “Lego Radio Telescope” simulator, which is intended as an outreach and education tool to help people understand how array configuration affects the performance of radio telescopes.

The project is intended to work in tandem with a software system that will simulate the performance of a telescope and display the results on a screen.

The goal of the project is to allow people to re-arrange the locations of lego telescope antennas. The system detects the locations of the antennas and transmits that to the accompanying software system.

This project would suit a student with an interest in radio astronomy, electronics and microcontrollers.

Research Field

Radio Astronomy/Engineering

Project Suitability

Masters, Final year Engineering
Honours (as appropriate)

Project Supervisor

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Co-Supervisors

Dr George Heald (CSIRO)

Aims of project

- (i) Design system for detecting location of antennas
- (ii) Design system for communicating the locations of antennas between hardware and software display system
- (iii) work with outreach team to maximise education and outreach potential of the system as well as practical aspects for portability etc.

