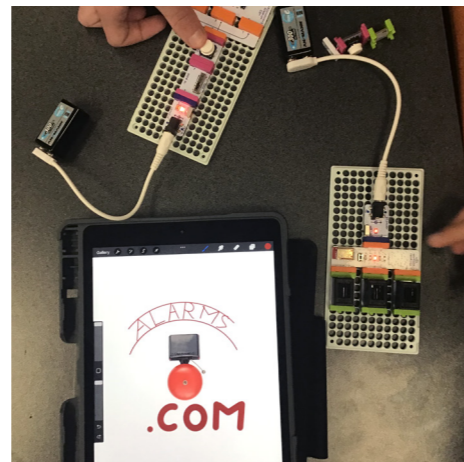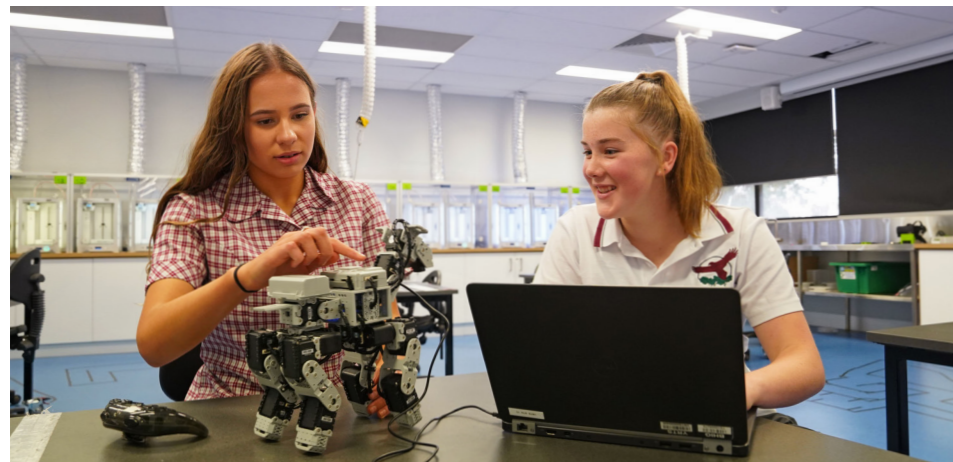# Hi-Tech Hospital

Industry Alignment

Students will be exposed to technologies and processes used in:

- Electronics
- Programming
- Robotics
- Health Services
- Telecommunications

Curriculum Areas Covered

Tech					English		Arts								Humanities				Capabilities			
Science	Design & Technologies	Digital Technologies	Mathematics	Health & Physical Education	English	EAL	Dance	Drama	Media Arts	Music	Visual Arts	Visual Comm & Design	Civics & Citizenship	Economics & Business	Geography	History	Critical & Creative Thinking	Ethical	Intercultural	Personal & Social
■	■	■	■		■												■	■		■

Student Work

Duration

This program can be undertaken on consecutive days or spread over a term. **2 days** at Yarra Ranges Tech School.

Curriculum Level

This program is suitable for students from level 7 or level 8.

Over 2 days students are challenged to think about the hospital of the future and how technology can improve efficiency in hospital's operations and boost patient morale.

Students will learn about the systems behind such technologies and how they operate using programming techniques. Teams of students are introduced to robotics, coding and electronics and then apply their learned knowledge to develop their solution to the challenge.

Key Learning Objectives

- To gain understanding of sequential commands
- To understand electrical circuits
- To use electronics to prototype assistive technology
- To understand the mechanics of robots
- To gain an understanding of emerging medical technology

Technologies Introduced

Students will develop knowledge and skills in:

- Robotics
- Circuitry
- Coding
- Electronics
- Coding
- Electronics

START

PREWORK 1
AMEIL MORVAN
72%
20%
8%
after lunch
Hospitals of the Future

PREWORK 2
BARISTA BEN
Service Robotics

PREWORK 3
Electronics

A
B
C

DAY 1
DESIGN THINKING

Empathy

Define the Problem

How Might We

Robotis / RoboMaster Tech Workshop

Ideation

littleBits Assistive Tech Workshop

D
E
F
G
H
I
J
K

80
O₂ 97
15

DESTINATION

Prototype

DAY 2

Pitch & Design Expo

Patient 23

18°

40
97
15

Structure of the two days – Day 1

S1 — Hi-Tech Hospital & Design Thinking overview
Choose case study & define problem

B — Break

S2 — Tech workshop – Robotis

L — Lunch

S3 — Tech workshop – littleBits Assistive
Generate ideas
Assess ideas

D — Depart

Structure of the two days – Day 2

S1 — Review of Day 1
Prototype & test

B — Break

S2 — Prototype & test
Pitch – What is it?

L — Lunch

S3 — Pitch – Presentation
Pack up & survey

D — Depart

Please note: Teachers are expected to assist with the program and technology throughout the day. Optional professional development is offered for both technologies and the Human Centred Design Thinking process.