

Activity Overview

Students work in small groups to explore electronics and coding using the Hummingbird Bit and micro:bit. Activities include connecting electronic components, pairing devices, writing and downloading code, testing outputs (lights, motors, sensors), and collaborative coding challenges. Students also engage in reflection on careers in robotics and educational technology.

Hazard Identification & Risk Controls

Hazard	Risk	Risk Level	Control Measures
Electronic components and wiring	Minor electric shock or component damage	Low	<ul style="list-style-type: none"> • Low-voltage, education-approved kits • Clear demonstration before student use • Students instructed not to force connections
Small components (LEDs, wires, sensors)	Choking hazard or misuse	Low	<ul style="list-style-type: none"> • Suitable for secondary students • Components used only at tables under supervision
Use of batteries	Overheating or leakage	Low	<ul style="list-style-type: none"> • Fresh batteries provided by staff • Battery changes supervised • Damaged batteries removed immediately
Use of cable cutter	Cuts or injury	Medium	<ul style="list-style-type: none"> • Cable cutter handled by staff only • Stored away from student access
Laptops and peripherals	Eye strain or posture discomfort	Low	<ul style="list-style-type: none"> • Mix of discussion, hands-on building and coding • Encourage posture awareness and breaks
Trip hazards (cables, kits, furniture)	Slips, trips or falls	Low	<ul style="list-style-type: none"> • Clear walkways maintained • Kits and cables kept on tables
Behaviour during group work	Unsafe handling of equipment	Medium	<ul style="list-style-type: none"> • Clear expectations set at session start • Active supervision throughout session
Radio communication between devices	Confusion or unintended device interaction	Low	<ul style="list-style-type: none"> • Clear instructions for radio groups • Facilitator support during pairing activities

Supervision and Training

Staff / Facilitators:

- Sessions facilitated by trained Casey Tech School staff
- Visiting teachers retain responsibility for student behaviour
- First aid facilities available onsite

Emergency Procedures

- Stop activity immediately if an incident occurs
- Provide first aid as required
- Notify school contact and complete incident documentation

Serious Injury or Emergency:

1. Call emergency services (000 in Australia).
2. Administer first aid.
3. Document the incident.

Equipment Safety & Maintenance

- Hummingbird Bit kits checked before and after sessions
- Faulty components removed from use immediately
- Batteries, laptops and peripherals stored and managed by staff
- Students follow clear cleanup procedures at session end

Review & Documentation

- After the session, staff to review and log any incidents, near misses, and feedback to improve future risk controls.
- Review risk assessment annually or after any incident.