

SCHOOL OF ELECTRONICS AND PHYSICAL SCIENCES

Undergraduate Project Hazards Assessment Form
(to be completed jointly by student/academic supervisor)

Student Caleb Ram

Project No 028_1

Project Title AI Base Smart Bulb System for Adaptive Home Automation

Location(s) for experimental work (list all) 16AB04 06AB04 18AB04 6dAB04 11AB04 Home(50 Vale Road KT4 7EA)

Complete the table below. Up to date risk assessments must be available which cover the hazards of a project, and necessary procedures and precautions explained to the student.

Which of these hazards are involved in the project?	Delete as applicable	Location of risk assessments	Hazards & precautions explained
Biohazards	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No biohazards present
Electrical work	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Fire or overloading Isolate power, use insulation, verify connections safely
Extreme temperatures	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Heated components or soldering irons Avoid burns by using gloves and heat-resistant mats
Flammable or explosive substances	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Solvents or aerosol sprays Keep away from sparks and open flames.
Ionising radiation	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No ionising radiation present
Knives / cutting tools	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Sharp blades used in prototyping Handle carefully and wear gloves
Lasers	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Eye or skin injury from laser exposure Keep cover closed, wear safety goggles
Lifting equipment	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No lifting equipment
Machinery	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Avoid moving parts Follow safety procedures
Manual handling	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Heavy items like power supplies Use correct posture
Microwave radiation	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No microwave radiation present
Noise	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Drills, extractor fans Wear ear protection when using drills for long periods of time
Non-ionising radiation (eg UV, IR, RF)	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Wi-Fi avoid prolonged close exposure, normal use is safe IR lamps do not stare directly

Non-ionising radiation (eg UV, IR, RF)	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	use protective shields UV light (lab lamps): wear goggles, limit exposure time
Power tools	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Soldering iron, use heat-resistant mat, avoid contact, unplug when not in use Drills, wear safety glasses, secure workpiece, keep hands clear
Pressure vessels/systems	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No pressure vessels or pressure systems
Substances hazardous to health eg chemicals, dusts	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Small amounts of soldering fumes, cleaning chemicals, or dust Use extractor fan, gloves, and masks
Vacuum systems	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No vacuum systems
Working at height	NO	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	No need to work at height using a ladder for example
Other: (please describe) Electrical components and small tools	YES	16AB04 06AB04 18AB04 6dAB04 11AB04 Home	Handle safely, follow instructions

The student has discussed this project with the academic supervisor, and:

- Understands the nature of hazards associated with the project
- Has been instructed in the precautions and procedures to be used to minimise risk from these hazards and the actions to be taken in the event of an accident
- Has attended all appropriate lectures on laboratory safety and procedures during their undergraduate course
- Will ask the supervisor to clarify any H&S matters of which they are unsure

Supervisor Name.....Signature.....Date.....

Student Name Caleb Ram Signature Caleb Ram Date Wednesday 12th November 2025

NOW RETURN THIS FORM TO THE TEACHING LABORATORY MANAGER