Work Activity:	Baylab workshop - Lego Robotics: Code and Create		
Persons at Risk:	Employees, young persons, visitors, and others in the vicinity	**Risk Assessment ID:**	GP-RA-32
Assessor:	Lucy Haywood	**Issue Date:**	06/2025
Consulted With:	Emma Schierbaum	**Version Number:**	1.0
Approved By:	Yvonne McCann	**Review Date:**	06/2027

Applicable To:	Bayer employees who work in Baylab, school/college students, teachers and people accompanying the children as helpers, visitors in Inspiration Space
Notes:	

Background:

This risk assessment covers the Lego Robotics: Code and Create workshop held in the Baylab and the Inspiration Space at 400 South Oak Way. This overall risk assessment includes general operations, storage, and maintenance in Baylab as well as the running of practical sessions and experiments for visiting student groups.

Note: In addition to this Risk Assessment, Bayer employees and contractors must read and understand all relevant sections within the Bayer Health and Safety Manual and any relevant Risk Assessments and COSSH Assessments. These can be accessed via the Health and Safety SharePoint site.

Note: All Baylab operations at 400 South Oak Way are under the control of the Baylab Manager.

Maintenance: Equipment must be maintained as scheduled in the Operator's Manual**.** All maintenance and use must be undertaken in accordance with manufacturer's recommendations.

Supervision of student groups: All groups must be supervised to at least the following ratios:

- 1 adult for every 6 students in years 1-3 (age 5-8)
- 1 adult for every 10-15 students in years 4-6 (age 9-11)
- 1 adult for every 15-20 students in years 7+ (age 11 upwards)

A minimum of 3 adults must be present when a Baylab workshop is taking place – this includes the 2 members of Baylab staff. Higher levels of supervision will be required for those with special educational needs. Baylab will not allow entry of student groups if the level of supervision is not sufficient or in the event of aggressive or unacceptable behaviour.

Spillages: All spillages to be cleaned up immediately and hazardous waste disposed of through a specialist contractor in accordance with the local waste disposal arrangements. Suitable spill kits are provided for all potential spillages.

Personal Protective Equipment: Lab coats are supplied and should be worn during sessions in the Lab. PPE required for the various experiments and procedures have been specified within the individual workshop risk assessments and will be provided to the student groups as required. This might include lab coats, suitable gloves, and safety eyewear. Normal uniform or day wear should be worn as Lab coats will be provided.

General: Good laboratory practice to be followed at all times. Long hair must be safely tied back; neck ties and scarves/headscarves should be removed or tucked into shirt/lab coat before practical sessions commence. No eating or drinking is permitted within the Lab during workshops. Refreshment breaks will be taken in the Inspiration Space or main Restaurant. For general advice on health and safety see Health and Safety Executive web site: *www.hse.gov.uk/*

All Bayer employees based in Baylab or who attend to support as volunteer helpers have undergone DBS to an appropriate level and in line with our internal Safeguarding Policy.

All students attending workshops will have the option to remove themselves from practicals should it cause distress. This must also be taken into account when attending groups are planning their supervision levels.

It should be noted that the Baylab is located within a corporate office building and student groups will not be permitted access other than to the Baylab and Inspiration Spaces, main foyer for access to toilets and Restaurant area if being used for lunch break. Co-ordinated toilet visits will be arranged prior to workshop commencing, during breaks and at prior to departure.

Please contact the Health and Safety Team based in Reading for any further advice or assistance by email to GB-CP-HS@bayer.com
Our Health & Safety Policy and Public Liability and Employers' Liability polices are available on request.

Should you require any further information on our Safeguarding Policy or have any concerns, please contact our Security Manger, Dave King, via our switchboard on 0118 206 3000.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Arrival of student groups on site	Operator, student groups and others in vicinity	1 x 3 = 3	Minibuses can park in the Visitors Car park provided they are not long-wheel based type Parking for coaches is not available on site Accompanying teaching staff must ensure that student groups are under control and stay on footpaths until the enter the building No entry to Baylab until permission is given by the Baylab Manager or team member Baylab Manager or Baylab team member to give general health, safety, and welfare induction upon arrival to include safety awareness, particularly emergency procedures, toilet provision, etc.	Students will enter the building via the main entrance unless temporary access restriction are in place when the rear entrance may be used. Groups must have adult supervision at an acceptable level. Bayer reserves the right to refuse admission in the event of aggressive or unacceptable behaviour.
Access and Egress	Operator, student groups and others in vicinity	1 x 3 = 3	Safe access and egress routes to be maintained at all times during all visits Materials, trolleys, etc. not to be stored in access and egress routes	Baylab operations must not obstruct access and egress routes at any time.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Fire	Operator, student groups, all employees, visitors and contractors	1 x 5 = 5	PAT testing and visual checks on all portable electrical equipment Suitable selection of equipment and use restricted to intended purpose Segregation of ignition sources from combustible material Good housekeeping essential in all areas Escape routes and fire doors to be kept clear Suitable fire extinguishers to be provided	
General use of Baylab and Inspiration Space areas	Operator, student groups and others in vicinity	1 x 3 = 3	Safe access and egress to be maintained at all times during all visits Good housekeeping to be maintained to reduce risk of slips, trips, and falls Supervising adults to keep others at safe distance from any experiments if necessary Only authorized personnel allowed in designated area No eating or drinking allowed in Baylab Coats and bag storage in the hall outside Baylab in designated storage cubes Lab coats and other Personal Protective Equipment to be provided as required Emergency eyewash station and first aid kit located in Baylab The Baylab Manager may terminate any session at any time in the event of unsafe, aggressive, or unacceptable behaviour	Note: the Baylab Manager is a trained first aider; other first aiders will also be available.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Students with disabilities	Operator, student groups and others in vicinity	1 x 3 = 3	Attending groups must always provide details of any student with disabilities before attendance at Baylab Individual risk assessment to be undertaken before work commences to ensure adequate controls are in place Personal Emergency Evacuation Plans to be put in place when requirement is identified Appropriate supervision and assistance for student as ascertained by risk assessment	Note: the Baylab Manager will not allow access to Baylab if not satisfied with the health and safety arrangements for all students.
Slips, trips, and falls	Operator, student groups and others in vicinity	2 x 3 = 6	Ensure good housekeeping in Baylab and Inspiration Space No running allowed in area Signage to be used if necessary to exclude others from designated areas Walkways must always be kept clear Wear suitable footwear Ensure adequate lighting of area All spillages to be cleared immediately	Ensure good cable management to prevent cables becoming a tripping hazard.
Allergies, medical conditions, and access requirements	Operator, student groups and others in vicinity	1 x 5 = 5	Attending groups to inform in advance of any allergy, medical condition, or access requirement that may affect visit to Baylab Visiting school or group to obtain parental permission to attend Baylab	See also Baylab Terms & Conditions.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
General use of equipment	Operator, student groups and others in vicinity	1 x 3 = 3	Ensure sufficient working space around equipment for task Suitable selection of equipment and use restricted to intended purpose All equipment to be maintained in accordance with manufacturer's recommendations Ensure good housekeeping in area Faulty or defective equipment to be removed from use and repaired, recycled, or disposed of PAT testing and visual checks of all portable electrical equipment Use of any items of equipment to be demonstrated to students before operation Student use of equipment must be supervised at all times.	Students can opt out of any practicals if necessary.
Artificial Optical Radiation	Operator, student groups and others in vicinity	1 x 3 = 3	Numerous artificial sources of optical radiation may be used but are classified as trivial because they are either likely to: (1) produce insignificant exposures (2) be considered safe, or not likely to present a health risk under normal use A UV lightbox is used in some workshops for older students and UV goggles are provided and MUST be worn	

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Storage of supplies and equipment	Operator, student groups and others in vicinity	1 x 3 = 3	Care to be given to storage procedures and locations Items to be stored in cupboards wherever possible and at low levels unless items are lightweight High level storage of items only where unavoidable and where securely stored	Step stool available to access any items stored at height.
Storage and use of chemicals	Operator, student groups and others in vicinity	1 x 3 = 3	Chemicals to be stored in appropriate cabinets with appropriate segregation Minimum quantities of chemicals to be stored Chemicals to returned to storage when not in use COSHH assessments to be in place to cover use of all chemicals Suitable PPE to be worn, including lab coats, nitrile gloves and eye protection when determined by Baylab Manager Fume cupboard to be used when identified as necessary by risk assessment or COSHH assessment All chemicals to be used under supervision of Baylab Manager or responsible adult	Note: only small quantities of low molarity chemicals used. Waste chemicals to be disposed of in accordance with COSHH assessment and waste policy.
Local Exhaust Ventilation (fume cupboard)	Operator, student groups and others in vicinity	1 x 3 = 3	Filtered fume cupboard to be used where identified as necessary by risk assessment or COSHH assessment Fume cupboard to be maintained and serviced annually in accordance with COSHH	
Falling Objects	Operator, student groups and others in vicinity	1 x 3 = 3	Care to be given to storage procedures and items to be stored at low level wherever possible Secure storage of lightweight items at high level only when unavoidable	

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Lone working	Baylab staff	1 x 3 = 3	Operators are to have read and understood the Lone Working section in our H&S Manual	
Electricity	Operator, student groups and others in vicinity	1 x 5 = 5	Electrical sockets must not be overloaded; no piggy backing of extension leads Visual check of electrical equipment before use Electrical equipment to be used and maintained according to manufacturer's recommendations PAT testing and visual checks of all portable electrical equipment Suitable selection and maintenance of equipment Statutory testing of all electrical supplies	Nothing exceeding 3 amps must be plugged directly into the desktop sockets.
Cuts and abrasions	Operator, student groups and others in vicinity	1 x 3 = 3	Use of sharp objects reduced to a minimum All sharps to be used for intended purpose only, for example scissors are not to be used as a knife Appropriate storage, packaging, labelling and disposal of sharps Existing cuts to hands to be covered by plaster before entry to Baylab	Sharps bins to be provided for safe disposal.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Use of glassware	Operator, student groups and others in vicinity	1 x 3 = 3	Use of glassware reduced to a minimum Students to be warned by Baylab team of potential hazards and instructed not to touch broken glassware Supervision of glassware use by Baylab team or responsible adult Students will be supervised to ensure glassware is handled correctly to prevent breakage All breakages to be cleared up immediately by Baylab team and broken glass to be disposed of in suitable sharps bin Suitable gloves and eye protection to be worn when disposing of broken glass	Note: glassware includes beakers, microscope slides, capillary tubes, chromatography tanks, test tubes and boiling tubes.
Burns and scalds	Operator, student groups and others in vicinity	1 x 3 = 3	Students will be warned of potential heat hazards before use Supervision of use of all heat sources at all times All potential heat sources to be switched off when not in use Heat resistant gloves or 'hot hands' to be worn when determined as required by Baylab Manager	Note: items likely to cause burns or scalds are heatblock, hotplate, oven, melted wax, hot beakers, and water baths.
Manual handling operations	Operator, student groups and others in vicinity	2 x 3 = 6	All Bayer personnel must have received appropriate manual handling training Individuals should not move items over 25kg by hand Suitable manual handling aids such as pallet trucks, trolleys, or sack trucks to be used Regular breaks and job rotation to reduce risk Requirement to wear suitable gloves or safety shoes to be risk assessed before any operation.	Student groups must not perform any manual handling task other than very minor lifting.

Hazard/Activity	Persons at Risk	Risk rating (FF x SF)	Controls and Safe Working Procedures	Additional Controls Recommended
Noise	Operator, student groups and others in vicinity	1 x 3 = 3	Low noise equipment to be purchased No equipment or process that cause excessive noise (i.e. that meet the lower action level)	
Choking on small Lego pieces	Student groups or others handling Lego	1 x 3 = 3	This workshop requires the handling and use of Lego pieces. Some Lego can be small and pose a potential choking risk if placed into the mouth. The Baylab manager will provide a safety briefing at the start of the workshop and school/supervisory roles accompanying the students will also be briefed and provide monitoring during the activity. Additional focus will be placed on the workshop for primary school aged children.	

Calculating the Risk Rating

Risks are assessed by rating the impact and the probability as low, medium or high, given the controls that are in place, as shown below. The numbers are multiplied together to give a score; the higher the score the greater the requirement to address that risk.

Risk is a combination of two factors:

- The likelihood that an adverse event will occur – the *Frequency Factor*
- The severity of the consequences of the adverse event – the *Severity Factor*

To make an assessment:

- Assess the frequency with which an accident may occur and take the numerical value from the table below for *Frequency Factor*. This assessment should be based on available data, such as reported accidents, or on knowledge and experience of the assessor.
- Assess the severity of injury the hazard could cause and take the numerical value from the table below for *Severity Factor*.
- Multiply the Frequency Factor by the Severity Factor to obtain the Risk Rating.
- Consult the Threshold Values given below to decide whether further controls are required.

Risk rating (RR) = Frequency Factor (FF) x Severity Factor (SF)

Frequency Factor	**Severity factor**
1 = Improbable Occurrence (<1/ year)	0 = No identified effect
2 = Possible Occurrence (Once/ year)	1 = Trivial Injury (no lost time)
3 = Occasional Occurrence (>2/ year)	2 = Minor Injury (≤ 7 days absence)
4 = Frequent Occurrence (>1/ quarter)	3 = Major Injury to One Person (RIDDOR reportable)
5 = Regular Occurrence (>1/ month)	5 = Major Injury to Several People or Fatality

Risk Assessment Conclusion:

The controls identified are accepted as being suitable and sufficient to allow this task to proceed.

Risk Level Rating

Threshold Values for Risk Ratings

0 – 8	**LOW LEVEL OF RISK**	**Acceptable risk within existing control measures**
9 – 11	**MODERATE LEVEL OF RISK**	**Put on hold and investigate further controls**
12 +	**HIGH RISK LEVEL OF RISK**	**Stop immediately and reassess process**

Record of Reviews and Controls Identified:

Date of review:	**6th June 2025**
Reviewed by (list all names Involved in review process):	**Yvonne McCann and Emma Schierbaum**
Extra Controls Identified:	
None	

Register of Changes Made:

Description of Change:	Date of Change:	Made by:

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