

The Innovation Wings

The Tam Wing Fan Innovation Wing One, also known as innovation wing, or innowing for short provides an open environment to foster interdisciplinary innovations among undergraduate students and teachers in Engineering and Technology. The provision of state-of-the-art facilities in a collaborative space will enable curriculum innovations that emphasize hands-on and experiential learning activities. The Innovation Wing serves as a platform to engage the young generation to explore the world, create opportunities for them to learn about the needs of the underprivileged, and acquire practical hands-on experience in developing solutions with real-world impact.

The Tam Wing Fan Innovation Wing Two aims to serve as an enabling platform for Engineering researchers to interact and collaborate synergistically with researchers and professionals across various disciplines to tackle grand challenges and deliver research outputs with significant impact to Hong Kong and global communities, and at the same time to share the Faculty's latest research achievements/findings/outputs with the large HKU and Hong Kong communities in widely accessible forms for example exhibitions and talks on research topics.

Direction

From the HKU MTR Station exit A2

Innovation Wing is located very close to the exit A2 of the HKU MTR station . There are 8 lifts at exit A2 connecting the HKU MTR station and the HKU Campus.

Turn left on the University Street

You will see the Haking Wong building in front of you.
Please turn left and continue walking at the University Street.

Arrive at the Innovation Wing

Just continue walking for less than a minute and you will reach the main entrance of

Innovation Wing. Welcome to the Innovation Wing!
Please note that Innovation Wing is not open access and only registered members are permitted to access to its facilities, equipment and services.

Please also note the opening hour for members, and the opening hour of the Innovation Wing Office listed at the bottom of this page.

Come in through the main entrance

Please come inside Innovation Wing through the main entrance.

Opening hours

Venue access for members

- Monday to Friday: 9:00am – 9:00pm
- Saturday 9:00am – 1:00pm
- Closed on Sunday and public/university holiday except for approved events/activities.
- The supervisor of our Innovation Wing affiliated student interest groups can raise an application to Innovation Wing Office (innowing@hku.hk) for their team to enter the special project studios after opening hours.

Innovation Wing Office

- Monday to Friday: 9:00am – 5:30pm
- Saturday 9:00am – 12:30pm
- Closed on Sunday and public/university holiday except for approved events/activities.

Educational Aim

Entrusting and empowering students

Unleash the creative potential of our students by entrusting them to spearhead ambitious innovation and technology projects that will shape the future.

Be an innovator

Embark on your journey of technology innovation in the Innovation Wing

Are you a student with a passion for innovation?

Do you have an idea for a project that could change the world?

Join us at the Innovation Wing of HKU!

We offers a unique opportunity for individuals and teams to develop and showcase their innovative ideas in a supportive and collaborative environment.

With access to state-of-the-art resources, expert guidance, and a community of like-minded individuals, you'll have everything you need to turn your idea into a reality.

Don't miss out on this chance to make a difference – apply now to join the Innovation Wing and unleash your creativity!

SIG

SIG – HKU UAS (Unmanned aerial system)

HKU UAS is a student interest group focusing on Unmanned Aerial Systems (UAS). We aim to gather self-motivated drone lovers to learn and work on drone projects together. Not only to gain a lot of hands-on experience, by joining us, you could improve your mechanical skills and learn and apply electrical and computer science skills.

With the support of Innovation Wing, we plan to join competitions to test our knowledge and skills, also to learn from other teams and gain valuable experience. In 2022, the team build the system based on the rules of AUVSI SUAS 2023.

The AUVSI SUAS Competition is a yearly event, designed to stimulate interest in UAS technologies and careers, and to engage students in a challenging UAS mission.

SIG – Smart Elderly Walker

This project aims to develop the set of technologies to achieve convenient-to-use mobility support for daily use of the elderly. In this project, we are developing a smart elderly walker which is intended to play an active role in an elderly person's daily life, with three fundamental functionalities that do not exist or not well supported by (smart) walkers in the market: smart walking assistance; falling prevention and support; autonomous mobility.

A set of mechanical, control, sensory, and AI technologies is being developed including:

- (1) novel walker mechanical structure with omnidirectional mobility and outrigger mechanisms;
- (2) dual-mode actuation and control for walking/standing support and fall prevention/recovery;
- (3) multimodal sensory data collection through soft sensory skin, and data processing on device and in the cloud, for event detection and control such as user front following and fall detection;
- (4) sound-source localization for elderly localisation and auto-navigation of walker.

SIG – BREED Robotics

BREED is a student group committed to developing and promoting bio-inspired technology. Our flagship VAYU project – the world's fastest robotic fish – and our upcoming initiatives such as our robotic dog aim to educate and enhance awareness in the general student body. Using designs perfected by millions of years of natural evolution, we adapt selected features into increasing effectiveness of man-made robots. We aim to establish a hub based in the Innovation Wing where this development can take root in the local community, increasing awareness and interest while promoting scientific innovation: this will be done through outreach projects, educational initiatives, as well as the continuation of various bio-inspired initiatives under BREED.

SIG – HKU RoboMaster

Robomaster is a national robotics competition for university students, hosted by DJI. The project is about forming a team to design various types of smart robots which can engage in face-to-face, videogame-style battles. The preparation process involves the knowledge in the following disciplines: mechanical and hardware design, control theory application, computer vision and smart algorithm, technical management. The ultimate purpose of the project is to develop the skills, quality and team spirit of engineering students that can be beneficial in their future career.

SIG – HKU Racing

Formula Student is a renowned educational engineering competition, combining practical engineering with soft skills including business planning and project management. It is a

proving ground for students who want to create and change the world. Electrification of transportation system is here, the combination of electric powertrain and traditional mechanical system has made this competition attractive to lots of industries leading to companys' attention and support. This competition jump starts our students' knowledge and skills set for their future career. HKU Racing is the first team from Hong Kong to compete in Formula Student (European series).

SIG – Quantum Bit Demonstrator

The world is currently in the midst of a second-quantum revolution, which will see the counter intuitive properties of quantum systems such as superposition and entanglement, being applied for commercial technologies such as quantum computing, quantum sensing, and quantum communications. Quantum Computing is mostly taught to undergraduates in a classroom focusing mostly on theoretical and mathematical concepts with minimal laboratory components. This is primarily because research laboratories working in quantum science are too expensive, bulky, and complicated to be used for undergraduate teaching purposes. We wish to bridge that gap by building a compact, user-friendly, interactive setup to introduce quantum physics to a younger non-expert audience. The goal of the project is to create a curriculum for quantum technology, a sustainable education model, with an in-class demonstration kit for quantum science education.

SIG – Engineering and Archaeology

We are forming a new interest group at the Innovation Wing, as a collaboration with humanities and educational researchers at HKU.

In this group, we plan to pursue several interdisciplinary projects that will improve the ways we can study and teach about the human past. Our projects will include uses of augmented and virtual reality in recording, teaching, and presenting archaeological sites. We are also studying the use of machine learning and computer vision for several purposes to study visual datasets such as satellite images of ancient landscapes. We work with a field project that travels to Armenia each summer to excavate. We welcome anyone who would like to join our team, from any Faculty. We especially invite engineers and computer scientists, but we also have many other projects which anyone with an interest can join.

Let's learn about the human past together! Thank you!

SIG – HKU Astar (formerly RoboMaster ICRA AI Challenge)

HKU Astar is a student group who participates in Robomaster University AI Challenge Competition. Robomaster University AI Challenge is an AI-based robotics competition for university students held by DJI and IEEE International Conference on Robotics and Automation. It emphasizes on writing AI algorithms and tuning and choosing and training machine learning models to power pure automatic robots to accomplish complex goals like building maps, avoiding collision and tracking. Our team aims to build AI Robot tuples that can work purely automatically. Implementing and design decision policies according to competition requirements. Training AI networks to recognize and track objects. Implement localization and motion planning on robots under uncertainty.

SIG – IIIs for VIPs

IIIs for VIPs is an SIG collaborating with our supervisor Dr. Joseph Chan. It aims to provide a space where students can create inventions which help improve the daily lives of visually impaired persons (VIPs). We welcome students from engineering, medicine and interested students from other faculties.

Our SIG will support our members in finishing their projects until it becomes available for public use. Any project with the purpose of improving the activities of daily living for VIPs are welcome.

SIG – PERFECT Wearables for Digital Health

Internet of things (IoT) has attracted huge attention because of its potential to connect things together with the cloud. Similarly, the Internet of Health (IoH) aims to enable real-time health evaluation of an individual or a group with advanced medical devices. This feat can be realized by developing tiny wearable biosensors that can be easily deployed on the human body to monitor health signals. This project develops next-generation wearable biosensors to allow digital healthcare. There are two main components. First, we develop skin-attachable biosensors which detect health signals including electrophysiological signals, temperature, and antibodies or glucose in the sweat. Second, we develop miniaturized sensor characterization systems to enable comfort wear for practical applications. The whole set can communicate the data wirelessly with other electronic devices. This will be one of the smallest wearable devices developed so far. Future research is being conducted by our group at the innovation wing now at HKU.

SIG – HKU Robocon

The annual Robocon competition project allows HKU engineering students from different disciplines to design and fabricate innovative robots with an integration of various advanced technologies, including IoT sensors, AI, computer vision, and mobile computing. Besides, it provides hands-on experiences on product design, prototyping, CNC machining, design and fabrication of electric circuit and PCB, control program development, etc.

Membership

- Membership of Innovation Wing, **once approved, will be effective until graduation.**
- Only registered members of Innovation Wing are permitted to access to its facilities, equipment and services with his/her HKU student/staff card.
- Please go through the following three steps (namely Registration, Deposit Payment, and General Safety Training) before granting access to the Innovation Wing.

Step 1. Registration

Eligibility:

- Undergraduate students and academic staff in the Faculty of Engineering.

- HKU undergraduate students, taught postgraduate students and research postgraduate students, academic staff, and technical staff who is a team member of an **Innovation Wing affiliated student interest group (SIG)** are eligible for membership.
- Undergraduate students and academic staff who is a member of the **InnoHub programme** organized by the **Innovation Academy**.
- Registered members of Innovation Wing are permitted access to its facilities, equipment and services.

Eligible students will be added to the following Innovation Wing Moodle page where they can apply for membership of Innovation Wing.

If you are eligible for Innovation Wing membership but yet to have access to the following Moodle, please send an inquiry to [innowing\[at\]hku.hk](mailto:innowing[at]hku.hk).

Step 2. Inno Induction and quiz on the general safety, rules, and guidelines

On the Moodle page, applicants **must watch a induction video**, which includes

- an introduction to the facility and equipment of Innovation Wing One
- a presentation for the general safety, rules, and guidelines (Please **refer to the following section for the rules and guidelines for Innovation Wing users**), and
- a preview of the events/activities for Innovation Wing members.

After watching the induction video, students will complete on Moodle:

- **a quiz on the general safety, rules and guidelines;** and
- a declaration on health and disability and agreeing to follow the rules and guidelines of the Innovation Wing.

After passing the quiz:

- Students are **come to Innovation Wing physically** and meet with our on-site tutors, technicians, and academic staff **for in-person induction**.
- Students can also register for the **in-person equipment training programme that focuses on the operational safety** of the maker space facilities (note that many pieces of equipment in Innovation Wing are for trained members only).

Step 3. Membership Deposit

- A fee of HK\$300 is required as a deposit to secure the membership of the Innovation Wing. This fee is used for covering any repair and replacement costs of equipment and facilities in Innovation Wing caused by member.
- The decision of imposing penalty rests with the Innovation Wing Office.
- Students should follow the instructions at the SIS and complete the payment before deadline.
- The deposit is refundable at the end of the membership. Students wishing to renew the membership for the subsequent year can inform the Innovation Wing Office accordingly.

Arrangement of refundable deposit

- A fee of HKD \$300 is required as a deposit to secure the membership of the Innovation Wing. This fee is used for covering any repair/replacement costs to the equipment and facilities in Innovation Wing due to any damages caused by the member.
- Applicants should follow the instructions at the SIS and complete the payment before the deadline.
- The decision of imposing a penalty rests with the Innovation Wing Office.
- The Inno Wing Office keeps on the balance of student deposit and the member should restore annually. During the year when the remainder is HKD \$0 or overdraft (OD), a new invoice of HKD \$300 deposit will be issued to the student via SIS in due case.
- The deposit is refundable at the end of the membership and will process in a batch. Students wishing to renew the membership for the subsequent year can inform the Innovation Wing Office accordingly.

Rules and Guidelines for Users

The Tam Wing Fan Innovation Wing is a collaborative space established to facilitate student experiential learning and researchers' demonstration of their works for knowledge exchange. To accommodate the needs of different user groups, the Innovation Wing has to balance between **safety**, **fair use** and **care for the facilities**. To guard against misuse, it maintains a membership system. Only registered members of Innovation Wing are permitted to use the facilities, equipment and services. Users must exhibit respectable behaviour, and must not jeopardize the rights of other users of the facility. Below is a list of Rules and Guidelines which users of the Innovation Wing must follow.

1. Violation of rules

- Repeated violation of any of the rules may result in immediate suspension of membership and revoking of access right to the Innovation Wing, its facilities and services.

2. Access restriction

- Only registered members of Innovation Wing are allowed to enter from the main entrance on the ground floor of Hui Oi Chow Science Building.
- Users should NOT bring in other people even if they forget to bring their access cards.

3. Closing time and under bad weather arrangement

- The opening hour for members
 - Monday to Friday: 9:00 am – 9:00 pm
 - Saturday 9:00am – 1:00pm
 - Closed on Sunday and public/university holiday except for approved events/activities.
 - Users should leave the premises when the closing time of Innovation Wing is announced.
- Innovation Wing divides the opening hour into three sessions:
 - Morning session (9 am – 1 pm)
 - Afternoon session (1 pm – 5 pm)
 - Night session (5 pm – 9 pm)

- Users should clean and tidy up the workplace at the end of each session.

Under the situations listed below:

1.
 1. Tropical Cyclone Warning Signal No. 8 (or above) is hoisted, or
 2. Tropical Cyclone Warning Signal No. 8 will be issued within two hours as announced by the Hong Kong Observatory; or
 3. “Extreme conditions” after super typhoons are in force (announced by the Government before the Hong Kong Observatory replaces Tropical Cyclone Warning Signal No. 8 with Tropical Cyclone Warning Signal No. 3); or Black Rainstorm Signal is in force,

the following arrangements will apply:

- For sessions not yet started
 - If any of the warnings or announcements is hoisted or in force at or after **6:00 a.m.** – Innovation Wing will be closed in the morning session (9 am-1 pm).
 - If any of the warnings or announcements is hoisted or in force at or after **11:00 a.m.** – Innovation Wing will be closed in the afternoon session (1 pm – 5 pm).
 - If any of the warnings or announcements is hoisted or in force at or after **3:00 p.m.** – Innovation Wing will be closed in the night session (5 pm – 9 pm).
- For sessions already started
 - When Tropical Cyclone Warning Signal No. 8 or above is hoisted or the No. 8 Signal will be issued within two hours as announced by the Hong Kong Observatory, or “extreme conditions” are in force – Innovation Wing will continue to open until the end of that session.
 - When Black Rainstorm Signal is hoisted – Innovation Wing will continue to open until the end of that session.

When Tropical Cyclone Warning Signal No. 3 or below or Red or Amber Rainstorm Signal is in force, it should be assumed that Innovation Wing will be open as scheduled unless an announcement to the contrary has been made by the University.

- Innovation Wing Office reserves the right to close the Innovation Wing at any time without prior notice in/before the event of adverse weather or other emergencies.

4. Follow instructions of technicians and tutors of Innovation Wing

- Users should follow instructions of technicians and tutors of Innovation Wing
- The on-duty technicians and tutors will wear the following badges.
- Users should take note of the location and the use of the safety station in Innovation Wing, which provides personal protective equipment, first aid boxes, and fire extinguishers.
- Users should read and follow the safety arrangements of the Tam Wing Fan Innovation Wing:
- Users should take note of the fire evacuation plan and assembly point of the Innovation Wing (G/F and LG/F of the Hui Oi Chow Building) as designated in the following website.

9. Cleanliness and tidiness

- Users should clean and tidy up the workplace at the end of every session/after use.
- Users should return the workplace to its original settings at the end of every session/after use.

10. Food and cooking

- Food and beverages are allowed only in areas designated by signage.
- Alcoholic beverages are not allowed in the Innovation Wing.
- Cooking or heating is strictly prohibited.

11. Posters

- Posting of posters inside or at the exterior glass façade of the Innovation Wing is strictly forbidden unless prior approval has been given by the Innovation Wing Office.

12. Shipping/delivery of items

- Users are NOT allowed to use the Innovation Wing as the shipping/delivery address of items.

13. Project items

- Users should obtain the approval from the Innovation Wing Office before moving in any project items (including but not limited to project equipment, tools, materials and storage boxes) into Innovation Wing.

14. Project storage

- Users should NOT leave any project items (including but not limited to project equipment, tools, materials and storage boxes) in Innovation Wing unless prior approval has been given by the Innovation Wing Office.
- Supervisor of Innovation Wing affiliated Student Interest Groups (SIGs) can request for storage space such as cabinets and temporary storage area. Innovation Wing Office shall make the best effort to accommodate the request.
- The Innovation Wing Office has the right to allocate/relocate/revoke the storage space for the SIG teams.
- When storage space becomes inadequate, the Innovation Wing Office has the right to request the SIG team to relocate its project items back to their host department.

15. Personal property

- Users are responsible for their personal property at all times and should never leave personal belongings unattended.
- Project/personal items left unattended for 30 minutes or longer may be removed by Innovation Wing staff as Lost and Found items to make the occupied space available to others.
- Innovation Wing Office and The University of Hong Kong shall not be responsible for any loss of or damage to their personal belongings and properties.

16. Surveillance system

- The Innovation Wing is conscious of the expectations between security, personal liberty and privacy. The installation of the surveillance system is therefore meant for protecting community safety and only in the public area. Users will be forewarned of the presence of the surveillance system.

17. Lost and Found

- Lost and Found items at the Innovation Wing are handled by the Innovation Wing Office in cooperation with the University's Security Office.

18. Chemical and hazardous items

- Unless approved by the Innovation Wing Safety Officer, chemical and hazardous items should NOT be brought into the workspace.

19. Clothing

- Users must wear proper attire at all times inside the Innovation Wing. DO NOT wear sandals or open-toed shoes.

20. Sleeping

- Sleeping (including overnight sleeping) is strictly prohibited in the workspace.

21. Gambling

- Gambling is strictly prohibited at all times in the Innovation Wing.

22. Smoking

- Smoking is prohibited in the University campus including the Innovation Wing.

23. Soliciting

- In order to respect the privacy, security and comfort of all Innovation Wing users, soliciting is not permitted unless prior approval from the Innovation Wing Office has been obtained. This applies to the request of money, services, favours, goods, opinions and signatures, petitioning, interviewing, and selling of any products or services.

24. Animals and guide dogs

- Animals and pets are not allowed in Innovation Wing.
- Guide dogs are allowed in the general area of the Innovation Wing. For entering the workspace area, users should contact our Technical Manager/safety representative for assistance.

25. Cell phone

- Please set cell phones, pagers, and other electronic devices to silent or vibration mode in Innovation Wing. Keep your voice down when using cell phones.

26. Use of IT facilities

- All PCs in the Innovation Wing will be logged off automatically after idling for 30 minutes. Files saved in the PC will be DELETED upon logoff/shutdown.

27. Children

- Children under the age of 17 other than HKU students should be accompanied by and under the supervision of an adult at all times who are responsible for the behaviour of accompanying children.

28. Protection of copyright works

- Protection of copyright works is taken seriously by the Innovation Wing. All users, including guests visiting the exhibition hall, would be asked to respect the rights of the copyright owner and should NOT make a copy by any material form without licence or authorization by the owner.
- Unless permitted by either the owner of the copyrighted work or the Innovation Wing Office, users should NOT take any photo, video or create drawing on the works.
- Please refer to the Hong Kong Copyright Ordinance for details or seek advice from your supervisor.

29. Interpretation of the rules and regulations

- In case of dispute, the Innovation Wing Office has the sole and final discretion of interpretation of these regulations.

30. End of membership

- Termination of membership will be processed in batch.
- Tam Wing Fan Innovation Wing reserves the right to terminate a membership or member's access to the Innovation Wing at any time and for any reason without providing prior notice.
- On the termination of Innovation Wing membership, the following steps will be executed:
 - Revoke all access rights to Innovation Wing.
 - Return of borrowed equipment (if any).
 - Refund of membership deposit (or settle of overdraft amount).

Innovation Wing affiliated student interest groups

Innovation Wing welcomes our members to register their project team(s) as an Innovation Wing **affiliated Student Interest Group (SIG)**.

Upon successful registration, the team members in the SIG team, including UG/TPg/RPg students from all Faculties, academic staff, and technical staff, are eligible for Innovation Wing membership, which entitles its members to access the facilities, equipment, and service of Innovation Wing.

Application

- Please **start with a consultation with the Director of the Innovation Wing.**

Team composition

- We encourage our members to work together in a multidisciplinary team on technology-related innovations/initiatives.
- **Academic Advisor / Supervisor**
 - We encourage the SIG team to identify an academic advisor / supervisor, who has the academic expertise in the field that the SIG focuses on, to work with the Innovation Wing on the appropriate resources that can help to grow the team.
 - The team is encouraged to identify an academic staff in Engineering, or an academic staff who joins the Innogramme organized by the Innovation Academy, as the academic advisor of the SIG.
 - If the team has not yet identified an academic advisor, Innovation Wing, and Innovation Academy are very happy to help to facilitate the connection.
- **Technical support**
 - As the team would do hands-on development works in Innovation Wing, we encourage the SIG team to identify designated technician(s), who possess the project-specific technical knowledge, to support the SIG in Innovation Wing on demand.
 - The designed technician will work with the Technical Manager of the Innovation Wing to provide the appropriate facilities and tools in supporting the prototyping and deployment work of the SIG.

Assessment

The Director may advise the team to submit a proposal/application form.

After reviewing the proposal, an interview may be scheduled if necessary.

Assessment criteria of the proposals are including but are not limited to the following:

1. Objectives and potential impact of the SIG;
2. Innovation, uniqueness, scope, and potential impact of the SIG;
3. Adequacy of academic and technical support allocated from the department;
4. Appropriateness of the proposed project-specific equipment/tools and the requested minimal storage space;
5. Adequacy of the planned T&L, R&D, and KE activities;

Project deliverable

The project supervisor shall submit the following deliverables to Innovation Wing Office (<innowing[at]hku.hk>) within one month after the expected project completed date:

- **A project report** – Please submit the Docx format of the project report, using the following template.
- **Media links:**
 - Poster of the SIG – preferably **36 inch width * 54 inch height with 150dpi (5400 * 8100 pixels)**

- Project images – Including a cover image and several other images (with high resolution)
- A short video about the SIG – preferably a one-minute introduction video of the SIG.
- Students’ sharing – Short written sharing from each student member of the project group.
- There are events organized by the Innovation Wing for the SIGs. The SIG teams will actively participate in the following events:
 - **The Engineering Induction event** – an orientation and introduction event for students to get in touch with various Innovation Wing affiliated SIGs at the beginning of the academic year.
 - **The Engineering InnoShow event** – a showcase carnival that celebrates innovative Engineering student projects at the end of every semester.
- There are **visiting tours** arranged by the Innovation Wing Office. The supervisor (or student/staff on behalf arranged by the supervisor) will introduce the SIG projects to the guests and visitors of Innovation Wing.

The role of Innovation Wing and its affiliated Student Interest Groups

	Innovation Wing	Innovation Wing affiliated Student Interest Group
Project storage	<ul style="list-style-type: none"> • Innovation Wing can provide project storage boxes for the SIG team upon the request made by the supervisor. Innovation Wing Office will make the best effort to accommodate the request. • The Innovation Wing Office has the right to allocate/relocate/revoke the storage space for the SIG team. 	<ul style="list-style-type: none"> • The SIG team and the host department follows the storage space arrangement made by the Innovation Wing Office. • When the storage space is limited in the Innovation Wing, the Innovation Wing Office could request the SIG team to relocate its project storage back to the host department.
Project studio	<ul style="list-style-type: none"> • Innovation Wing can provide project space in the co-working project studio for the SIG team upon the request made by the supervisor. Innovation Wing Office will make the best effort to accommodate the request. • Multiple SIG teams would be allocated to set up a collaboration / co-working space in the Project Studio. • Innovation Wing provides basic furniture (such as chairs, tables and storage drawers) upon request by the supervisor. • The Innovation Wing Office has the right to allocate/relocate/revoke the 	<ul style="list-style-type: none"> • Please report to Innovation Wing Office and obtain approval before bringing any project-specific equipment/tools in the Project Studio. • The supervisor manages the technical staff(s) from the department who is designated to support the SIG in Innovation Wing on demand. • When the Project Studio space is limited, the Innovation Wing Office

	Innovation Wing	Innovation Wing affiliated Student Interest Group
	project space in the Project Studio for the SIG team.	could request the SIG team to relocate their project space back to the host department.
Housekeeping / cleaning arrangement	<ul style="list-style-type: none"> The Innovation Wing Office arranges housekeeping / cleaning service for common areas such as the gallery, corridors and the event halls. 	<ul style="list-style-type: none"> The SIG members are responsible for the housekeeping / cleaning of the workspace they used.
Recruitment of new members for the SIG	<ul style="list-style-type: none"> Innovation Wing provides event/activity venues for booking. Please refer to this page for the details. Innovation Wing Office organizes the Engineering Induction event at the beginning of the academic year for new students to get in touch with various SIGs. The SIGs can recruit prospective members to grow their teams, seek timely and constructive feedback from academic advisors and share their inventive ideas with industry experts for potential collaborations. 	<ul style="list-style-type: none"> The supervisor manages the recruitment activities for the SIG. Participate in the Engineering Induction event.
Academic and technical support	<ul style="list-style-type: none"> Innovation Wing offers general facilities and services to its members <ul style="list-style-type: none"> Makerspace Brainstorming area/meeting rooms Computer-aided design (CAD) facilities 3D printing facilities Laser cutting and engraving facilities Electronic workbenches Hand tools/power tools and mechanical facilities in the Machine Shop 	<ul style="list-style-type: none"> The supervisor arranges academic and technical support from department(s) for the SIG.
T&L, R&D and KE activities of the SIGs	<ul style="list-style-type: none"> Innovation Wing provides event/activity venues for booking. Please refer to this page for the details. 	<ul style="list-style-type: none"> The supervisor manages the T&L, R&D and KE activities for the SIG.

	Innovation Wing	Innovation Wing affiliated Student Interest Group
Publicity of the SIG and their achievements	<ul style="list-style-type: none"> • Innovation Wing Office maintains a website that introduces its affiliated SIGs and their student activities/project achievements. • Innovation Wing Office organizes the Engineering Innoshow event, a public showcase carnival that celebrates innovative Engineering student projects at the end of each semester. 	<ul style="list-style-type: none"> • The supervisor provides the details to Innovation Wing for publicity purpose: • Media links: <ul style="list-style-type: none"> ○ Poster of the SIG - 36-inch width * 54-inch height with 150dpi (5400 * 8100 pixels) ○ Images of the SIG - one cover image and a number of other images ○ A short video about the SIG - preferably a one-minute introduction video of the SIG. • A completion report • Participate in the Engineering InnoShow event as one of the showcasing teams.
Tours for visitors	Innovation Wing Office arranges tours that feature inspirational visits to engage students, teachers and visitors with Innovation Wing's unique facilities, projects and student communities.	The supervisor (or student/staff on behalf arranged by the supervisor) introduces the projects of the SIG to the guests and visitors.
Access to special project studio		

Innovation Wing

- Innovation Wing can provide project space in the co-working project studio for the SIG team upon the request made by the supervisor. Innovation Wing Office will make the best effort to accommodate the request.
- Multiple SIG teams would be allocated to set up a collaboration / co-working space in the Project Studio.
- Innovation Wing provides basic furniture (such as chairs, tables and storage drawers) upon request by the supervisor.
- The Innovation Wing Office has the right to allocate/relocate/revoke the project space in the Project Studio for the SIG team.

Supervisor of SIG

- Please report to Innovation Wing Office and obtain approval before bringing any project-specific equipment/tools in the Project Studio.
- The supervisor manages the technical staff(s) from the department who is designated to support the SIG in Innovation Wing on demand.
- When the Project Studio space is limited, the Innovation Wing Office could request the SIG team to relocate their project space back to the host department.

Student participants and designated technical staff of SIG

According to Section 9 of the safety manual of Innovation Wing (innowing.hk/safety):

- All workshops/project studios users including technical staff are requested to sign a **Safety Awareness Declaration Form**.
- The duly completed form should be submitted to the staff-in-charge of the thematic workshop or the supervisor of the Student Interest Group for endorsement.
- The supervisor submits the endorsed form to the Technical Manager.
- The form will automatically expire on 31 August every year. Members should make the declaration again for keeping his/her privilege of working in the thematic workshop/project studio.
- Smart card door access privilege to a workshop/studio would not be granted without a duly completed Form.
- The technical manager may request users to make a declaration again if a new hazard(s) appears in the premises.

Working outside opening hours

- According to the safety manual of Innovation Wing 5.6 (innowing.hk/safety)
- *“Under exceptional circumstances, Student Interest Group may apply for working in the project studio outside the normal opening hours by filing an application form which can be obtained from the General Office. The form must be endorsed by the academic supervisor who must arrange himself/herself or a technical staff to supervise the group in the project studio.”*
- Academic supervisor of Innovation Wing affiliated Student Interest Group can submit the following application form to Innovation Wing Office or email (innowing@hku.hk) **at least 3 working days in advance** for the outside opening hours working arrangement in the special project studio.

Background

The Innovation Academy serves as an accelerator for inspiration and implementation. The Funding Scheme for student projects/activities by Tam Wing Fan Innovation Fund and Philomathia Foundation Innovation Fund (hereafter called the “funding scheme”) aims to identify, engage and nurture student projects/activities with creative potential to tackle emerging complex engineering problems in the world.

Funding principles

The funded projects/activities should focus on out-of-classroom learning experience with the aims of aligning with the vision and missions of the Faculty of Engineering and the Innovation Academy.

All Engineering undergraduates, taught postgraduates and InnoHub members can apply for financial support to cover the expenses incurred in the development of projects/activities, such as prototyping, testing, deployment and refining. This funding scheme should be able to support equipment, materials, consumables and other necessary expenditure incurred in the development of projects/activities.

Furthermore, they can apply for a maximum of HK\$3,000 to subsidize the travel and accommodation of those participating in innovation competitions, visits and conferences; attachment to universities and institutes / centres (Mainland and overseas); laboratories and enterprises (local, mainland and overseas) to further develop their projects/activities; promotion of STEM and innovation in the community, including the Greater Bay Area; and those participating in other out-of-classroom learning activities as deemed appropriate as recommended by the Innovation Academy and Tam Wing Fan Innovation Wing.

Normally, a maximum of HK\$100,000 will be funded to an individual project, subject to approval by the Innovation Academy Steering Committee.

Application and review

Applicants should arrange for the following materials to reach the Innovation Academy **by February 17, 2023 (Friday)**:

1. A completed application form
2. A full budget proposal which normally cover the period from April 1, 2023 to March 31, 2024
3. All other supporting documents as required in the application form

Assessment of application will be conducted by the Innovation Academy on the basis of:

- Objectives of the project;
- Contribution to out-of-classroom learning in the team and Innovation Wing;
- Relationship to technology application / development of the project
- Deliverables of the project;
- Execution plan; and
- Funding request and budget proposal.

The funding will be reimbursed on an accountable basis. To facilitate enriching students' learning experience through experiential learning, it is desirable for academic staff of departments to serve as supervisors of these students, and technical support from departments are also essential to facilitate students to go through the learning process in working on project.

Report and deliverables

Students are required to submit a project completion report with the following deliverables within one month after the completion of project:

i. Project Completion Report

- Submit a report in docx. format within a month after the project completion.

ii. Media links

- Poster – dimensions of 36 inches (width) x 54 inches (height) with at least 150dpi.
- Project images – include the cover image and at least 5 project images with printable quality.
- One-minute video – a short video of project highlight.

iii. Students' sharing

- Short written sharing from each team member of the project.

iv. The project teams will be invited to disseminate the project deliverables and outcomes through:

- Website and promotional materials of the Faculty of Engineering, Innovation Academy and/or Tam Wing Fan Innovation Wing, where appropriate.
- Presenting their work to the University community and/or the wider public.

v. Acknowledgement to the Faculty of Engineering and the respective funding source(s) on the poster, images, videos, written reports or other written publications should be made.

General application guidelines

The funding provided for each successful application will vary according to the expenses incurred. In general, the following item(s) will be supported, subject to approval by the Innovation Academy and/or the Faculty of Engineering.

Application and Cover Period:

First Round:

- Application Period: October
- Cover period: December 1 to November 30 of next year

Second Round:

- Application Period: February
- Cover period: April 1 to March 31 of next year

Quotations Requirement:

Please observe the following guidelines for the cost limits and required procedures for all procurements:

Cost Limits	Required procedures
>\$30K	
>\$5K but of an attractive nature	Minimum 2 competitive written quotations are required.
>\$30K to \$150K	Minimum 3 competitive written quotations are required, with at least 1 from HKU's Registered Supplier List.

Notes:

- Quotations by HK-based suppliers and vendors are highly recommended.
- Applicants are advised to seek advice from their supervisor before submitting their application

Inventory items (e.g. equipment, AV or PC items, etc.):

- The funding for equipment will be handled on a case-by-case basis. Applicants should provide detailed justifications on the usage of the equipment on their application. In general, equipment are items with an asset value greater than HK\$15,000, and/or items above HK\$5,000 but of an attractive nature, such as AV and PC items.
- The applicants are required to submit the application with all necessary supporting documents, such as item descriptions and quotations. The Innovation Academy and Tam Wing Fan Innovation Wing will be responsible for the procurement of the items, if appropriate. Applicants are not required to make any purchase/procurement.
- **Upon completion of the approved project, Innovation Academy reserves the right to redeploy any equipment/software acquired through the Funding Scheme.**
- Project teams must not use, except previously approved in the proposed budget or with sound justifications as specially approved by the Innovation Academy, the fund to purchase:
 1. Personal electronic devices such as cell phones, tablets, iPod, iPad, MP3 players, digital cameras/video recorders and PDAs; and
 2. Standard equipment such as desktop personal computers, servers, laptop computers, printer, scanners and standard software/software license/dataset known to be available, or reasonably expected to be provided in the university.
- Applicants are advised to seek advice from their academic supervisor and/or Innovation Academy before making any procurement decisions.

Non-Inventory items (e.g. consumables):

- Essential operational expenses may be considered. In general, project materials and consumables are supported.
- Expenditures on staff cost, food and beverages will not be supported by the funding scheme.
- Applicants should follow the University's guidelines and provide justifications for reimbursing expenses for non-inventory items.

- Applicants are advised to seek advice from their academic supervisor and/or Innovation Academy before making any procurement decisions.

Subsidy for student travel and accommodation:

A maximum of HK\$3,000 per head for travel and accommodation to be subsidized with conditions.

- Airfare (including HK Airport Tax)
 1. Intended to cover the most direct routes from Hong Kong to the destination.
 2. Eligible class of air travel: Lowest fare round-trip economy class ticket with baggage allowance.
 3. Any additional costs for stopovers for personal reasons will not be covered.
 4. Competitive quotations (same destination, same class, and same period) for the most direct route for the trip from at least 3 travel agencies inclusive of 2 different air carriers should be provided for comparison purpose.
 5. Public means of domestic transportation expenses to and from the airport are reimbursable.
- Hotel accommodation (room cost only)
 1. Intended to cover shared/most basic accommodation from the night following arrival at the destination up to and including the night before the departure from the destination (but excluding any overnight stay for personal reasons).
 2. Eligible standard of accommodation: 3-star or equivalent standard hotel/hostel.
 3. Competitive quotations of room rates (same region, same standard, and same period) in the same region as the innovation activities from at least 3 agencies/hotels should be provided for comparison purpose.
 4. Meals are not covered in this funding scheme.

Notes:

- Original copy of receipt(s), invoice(s), quotation(s), copy of e-tickets(s), etc., should be provided in the application and reimbursement processes. If the applicant fails to present the original copy of relevant documents, the Innovation Academy may not be able to process the reimbursement.
- Project teams have to seek prior endorsement from their Supervisor(s)/Advisor(s) and if necessary, seek advice from the Innovation Academy, before any air-ticket purchase and hotel booking. Otherwise, the reimbursement claim may be rejected.
- Proof for foreign currency translations (e.g. money exchange vouchers, credit card statements, etc.) should be provided, or else the relevant market rate published by the Hong Kong Association of Banks, where applicable, will be applied for reimbursement purpose.

Application guidelines

Innovation Wing endeavors to promote and facilitate interdisciplinary innovation and experiential learning events/activities in Engineering. It favorably considers applications for using its venues for the relevant events/activities in the form of, e.g.,

1. Activities arising from the Innovation Wing affiliated Student Interest Groups (SIGs) and the Advanced/Thematic Workshops;
2. Experiential learning components in competitions and Engineering courses;

Application

- You may let Innovation Wing Office knows your venue request by sending us an email [innowing\[at\]hku.hk](mailto:innowing@hku.hk), our staff will reply and assist with your application shortly.
- Or you can talk to the Director of the Innovation Wing

Full-time Temporary

Student Research Assistant - Robotics (Summer 2023)

Full-time Temporary Student Research Assistant (Summer 2023)

(to commence from May/June to August 2023)

Generative AI has the potential to revolutionize many industries due to its ability to create new and innovative content. It can be used to create realistic and high-quality output such as images, videos, music, texts, and other forms of content, which can be used in a variety of applications such as computer vision, natural language processing, music generation, and more. By replacing manual tasks and automating the creation of new content, generative AI can significantly reduce the time and cost associated with these activities, making them more efficient and scalable. Generative AI can also be used to create new forms of art and entertainment, which can expand the boundaries of human creativity and imagination. The impact is likely to be significant and far-reaching.

We look for **Full-time Temporary Student Research Assistant (Summer 2023)** to assist in studying the basics of the latest software and tools related to various types of generative AI (e.g., DALL-E, ChatGPT), developing hands-on workshops and preparing training / learning materials for our members. Applicants should be a current member of the Innovation Wing. He/she should have an excellent command of written and spoken English, good interpersonal and communication skills. They should also demonstrate excellent presentation skills. They should be highly motivated, responsible, able to work independently, work under pressure and meet tight deadlines. He/She may be required to work outside office hours.

The appointment will commence from May/June to August 2023, with the possibility of part-time appointment in the next academic year, subject to satisfactory performance and funding availability.

We welcome undergraduates from all Faculties and MSc students to apply for this job. Interested applicants, please send your

1. **CV**
2. **Academic transcripts**
3. **The earliest available date**

to Innovation Wing (innowing@hku.hk) on or before June 22, 2023 (Thursday). A confirmation email will be sent to you and an interview will be scheduled for shortlisted applicants.

Review of applications will commence as soon as possible and continue until the posts are filled.

Sharing of our interns

[Mr. Chan Chun Kit \(Ryan\)](#)

Period of Duty: June 2021 – August 2021

Great success won't come without great opportunity. Without the job opportunity offered by Innowing and the help of the staff and facilities here, I would not be able to design and develop the impressive training modules for our members.

Looking back to last summer, I was working on the design of the training modules of Embedded system and 3D printing. Starting from the planning, testing, carrying out execution and evaluation of the process, my path is full of passion and motivation of delivering the best for our next generation of engineer. Difficulties do exist. But just remember, the help from your intern partners, tutors and technicians from different departments will never be absent. You may face obstacles when you are planning or designing the modules, but Innowing would be the place where everyone's ideas are very encouraged to be expressed. Trust your partners. That is how I gained the great success in duties.

During my two months of Internship, I successfully finished the design and execution of the two training modules (Embedded System and 3D Printing). Creative duties like product designing, video making and selecting training consumables to purchase surely upgraded my ability of handling executive duties. Generating worksheets for members and guidelines for tutors also helped me to stratify my knowledge of the above modules and generate attractive technology learning. Within this short period of time, I have gained a fruitful outcome more than I could expect. At Innowing, your ideas are very much welcomed, discussed, and supported. This is the best working environment I could tell.

I am looking forward to working again at Inno Wing, serving to help students to express their innovative ideas. Hope to see you working with me in the future. Let's construct a better community together!

[Mr. Bozzolan Alex Francesco](#)

Period of Duty: June 2021 – August 2021

First of all, I would like to take the chance to properly thank the Innovation Wing, for having me as their student intern for the summer period. It was really a meaningful way to pass the vacation. Together with the Innovation Wing, we have provided training modules to help students kickstart their interest in building their own small projects. I was in charge of making the materials for Laser Cut Machine as well as the safe and correct usage of Power Tools.

After going through the training materials, students would then be able to use the laser cut machine to cut their very own cellphone holder, with patterns of different shapes, and to make their own mini-cabinet with the use of power tools to drill properly sized and located holes for fastening of screws. It provided me the opportunity to create innovative and interesting tasks for us engineering students, and allows me to apply what I have learned in lectures to my job this summer.

I thank the Innovation Wing once more for giving me this opportunity, and I am sure that other students if given the opportunity, would love to be in this cause as well.

Director of the Tam Wing Fan Innovation Wing- Dr. C.K. Chui

Dear Students,

Welcome to the Tam Wing Fan Innovation Wing, a place where we turn our ideals and dreams into reality. The Innovation Wing is managed by the Faculty of Engineering and is located on the G/F and LG/F of the Hui Oi Chow Science Building.

The Innovation Wing provides an open environment to foster interdisciplinary innovations among students and teachers. The provision of state-of-the-art facilities in a collaborative space will enable innovations that emphasize hands-on and experiential learning activities. The Innovation Wing will be a platform to engage the young generation to explore the world, create opportunities to learn about the needs of the underprivileged, and acquire practical hands-on experience in developing solutions with real-world impact.

Innovation Wing is beyond an iconic landmark in HKU, it is also a welcoming, creative and vibrant community that nurtures the innovation and creativity of our future engineers.

I am looking forward to seeing you around

Best regards,

Kit

Embark on your journey of innovation with us!

Dear students,

If you/your team has any of the following in progress/under planning, please don't hesitate to talk to Kit (the Director of Innovation Wing).

All HKU students are welcome.

- We have a tech idea and would like to actualize it in Innovation Wing.
- We want to organize hands-on workshops/events in Innovation Wing.
- We want to teach other students some hands-on skills.
- Any other things about the Tam Wing Fan Innovation Wing.

Looking forward to hearing from you!

Best regards,

Kit

Talk to our Director

- **Let's begin by talking to the Director of Innovation Wing, all HKU students are welcomed.**
- Please schedule a consultation at least 1 day in advance (available timeslots in the upcoming 30 days are listed).
- Please fill the following form and let Kit knows the **topic to discuss**, and **provide more background** so he can prepare more useful resources for you / your team during the

consultation