

# FOSTERING HK'S YOUNG MAKERS AND CHANGEMAKERS



## Background

Maker education promotes 21st century skills such as creativity, collaboration, communication and resilience. Combined with design thinking, knowledge of maker tools and technologies can lead to incredible social innovations. Our community partner Young Makers and Changemakers (YMCM) offers students from a breadth of disciplines experiential learning experiences to learn about, participate in and contribute towards this important global movement to positively impact our youth, our community and our world.

## Possible Experiential Learning Projects and Activities

Students from a broad variety of disciplines will have the opportunity to work with makers, makerspaces, educational toy manufacturers, electronic manufacturers, educators, social innovators and parents, such as YMCM's partners for MakerCamp HK, as well as potentially with hardware and social innovation incubators and accelerators, to learn about and use student-friendly programming languages such as Scratch and Python, as well as maker tools and technologies such as Raspberry Pi, Makey Makey, littleBits, 3D printing, Arduino, 3D Doodler, Strawbees, Makedo, etc. to effect projects such as the below:

1. **Young Maker education** – develop a localized young maker educational framework, curriculum and documentation that incorporates ideation, prototyping, testing and feedback, including developing and conducting train-the-trainer sessions, for the introduction of maker education into schools and/or afterschool activities and augment design thinking and STEAM education.
2. **Young Maker workshops** – conduct workshops for young local makers using maker education, tools and technologies based on themes that address certain societal problems, such as marginalized communities and the environment. Students will use their own academic backgrounds in e.g., software, engineering, medicine, biology, architecture, social science etc. to also develop their own maker projects as workshop showcases (e.g., 3D printed prosthetics, pollution monitors) and maybe even for actual use in the community.
3. **Young Maker and ChangeMaker community** – develop an online and video platform to facilitate collaboration, communication and peer learning amongst young makers to showcase their innovations.
4. **Social enterprise model** – develop a sustainable funding model to facilitate such maker education, workshops, tools and technologies to be socially inclusive and accessible on an ongoing basis by Hong Kong's young, regardless of socio-economic circumstances, through e.g., membership-based tinkerer libraries and/or fab labs.

## Summary

Students will gain firsthand experience with and contribute towards young maker education using maker tools and technologies that they can also later incorporate to prototype for their own studies and careers. They will get inspired from making, peer-learning and cross-disciplinary and multi-stakeholder collaboration to innovate and help solve problems to benefit our community and our world.



## PROJECT LOCATION



Various locations in Hong Kong

## COMMUNITY PARTNER



Young Makers & ChangeMakers – MakerCamp HK organizer

## KEY AREAS



Maker movement, maker education, change, change maker, technology, innovation, social innovation, instructional design, programming, manufacturing, IoT, video production, engineering, interactive media, new technologies, prototyping, marginalized communities, education, workshop, creative, social entrepreneurship

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