



POLYU Junior Researcher Mentoring Programme 2024



Code:	JRMP2024_25
School / Department:	School of Design
Name of Research Team Member(s):	Dr Clifford Choy, Assistant Professor
Research Topic:	Modular parametric components for mechanical flowers
Short Description of the Research Project:	<p>This project will involve designing modular parametric components for the creation of mechanical flowers and plants that can exhibit different static and dynamic appearances, inspired by flowers and plants in nature, for use in interactive installations. These could include arrangements of petals and leaves, blooming, swaying/moving, growing and withering.</p> <p>The participating students will use Rhino/Grasshopper to build additional parametric components based on an existing collection of components from a mechanical flower design. Apart from mechanical design, the students will also be expected to conduct research on plant morphology (specifically, phyllotaxis) to obtain inspiration for the design of mechanical structures and parametric components.</p>
No. of Places Offered:	5
Frequency of Meetings:	Bi-weekly
Special Requirement(s):	<p>The participating students should have an interest in science, especially plant morphology, and be good at mathematics and programming, especially with python.</p> <p>It is preferable for the participating students to have experience in 3D CAD modelling in Tinkercad, or other packages such as Fusion 360 or SolidWorks</p>

* The information presented above is subject to change.