

# Faculty of Engineering and Design

## Summer Research Scholarships

### 2026/2027 Projects (Mapping Material Tinkering for Resilient Community)

<b>Project code</b>	ENG030
<b>Project title</b>	<b>Mapping Material Tinkering for Resilient Community</b>
<b>Discipline</b>	Design
<b>Supervisor(s)</b>	Ziyu Zhou Brueck; Xin Cheng
<b>Contact details</b>	ziyu.zhou.brueck@auckland.ac.nz
<b>Skills Needed</b>	<ul style="list-style-type: none"><li>• Interest in material engagement, sustainable design, and circular economy practices.</li><li>• Interest in material engagement, sustainable design, and circular economy practices.</li><li>• Willingness to engage in hands-on experimentation, prototyping, and tinkering. Familiarity with prototyping and personal fabrication technologies is an advantage.</li><li>• Confidence in interacting with community participants.</li><li>• Ability to document and communicate processes through photography, note-taking, and other media.</li><li>• Interest in reflective observation and the analysis of design processes.</li></ul>
<b>Project description</b>	<p>This project investigates how material tinkering with discarded post-consumer products can support knowledge generation through making, and contribute to educational and community-based practices for transition towards more resilient and low-carbon futures in Tāmaki Makaurau. It aims to identify recurring strategies and patterns within material tinkering processes for social change.</p> <p>The project leverages an established community-based tinkering environment in a community recycling centre to investigate how material knowledge is generated, shared, and applied through engagement with discarded post-consumer products. Research activities will include exploring the material, structural, and functional potential of discarded post-consumer goods through hands-on tinkering, experimentation, and interacting with fellow tinkerers and knowledge-holders. The outcome will be an open-source How-To guide, as well as the documentation which reflects on the processes of experimenting, learning, making and designing with discarded post-consumer products.</p>