Faculty of Engineering
Summer Research Program 2023-2024

Project Title: Smart human-machine collaboration on product's decommissioning and recycling

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Objective
The objective of this project is to develop a smart human-machine collaboration system for the efficient and safe decommissioning of products such as electronic devices, lithium-ion batteries. The project aims to leverage advanced technologies, including robotics, artificial intelligence (AI), and sensor systems, to enhance the decommissioning process, improve resource recovery, and ensure worker safety.

Project Details

This project aims to use robots to help human operators to disassemble the used products and recycle some of components. The scope of project can be divided into two parts. First, we should identify the process that is suitable for robotics. Secondly, develop robot program to enable the collaboration between human and robot to improve the working efficiency of process. In this process, machine vision or other AI techniques will be used to make robots smartly working with human.

Prerequisites
Students with robotics or AI background is preferred.