

This project developed a robot arm, a tablet application, and a custom syllabus for teaching robotics in a tangible and interactive way.

In the past, MAEG3060: Introduction to Robotics was taught with traditional lectures. By bringing in tailor-made robot arm and tablet application, we transformed them into hands-on lectures where students can experience abstract concepts in robotics. As a result, students' attention and interest increased; they attended more and worked more in a group.

For this project, a total of 12 robot arms were designed, developed and built. An android tablet application was created, covering 4 major areas and 23 topics/subtopics. These courseware materials were used in two courses during the project period: MAEG3060 Introduction to Robotics, and ERGM1717 Robotics: Automating the Future (Summer Institute).