

MIT 2.009: The Product Engineering Process

Mechanical Engineering Product Design and Development: “The E-Flag.” Fall 1997

This senior-level, mechanical engineering design course combines elements of product development (market identification, customer-needs identification, product design, mock-up construction, alpha-prototype construction, cost analysis, design-for-manufacturing, etc...) with the development of teamwork skills and the application of the engineering concepts learned in all the core, MIT, mechanical engineering courses.

Teams of 24 students designed and built WWWeb related, electro-mechanical “gizmos,” such as the fuzzy email-flag/appointment-minder, shown below. In sub-groups of 1-4 students, markets were researched, consumers were surveyed, a product was chosen and designed with modular actuation mechanisms, and finally, an alpha-prototype was built. Besides helping with consumer surveys, general product design, and parts procurement, my main task was the design and construction of the electronics used to drive the motors and solenoids in the “E-flag.”



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