

Design Manufacturing Machines for Education

Do you like making stuff yourself where you would normally need machines in a factory?
Are you interested in designing manufacturing experiences for IDE students?
If YES than we are looking for you: an enthusiastic maker to develop applicable test-setups
which can be used to enhance learning in our engineering bachelor courses.



An example of a possible experiential machine to learn about injection molding [Gibbon, 2022] & FormBox: Vacuum Former

Within the first-year engineering course "Understanding Product Engineering," students are introduced to the fundamentals of mechanics of materials and unfortunately primarily limited to theoretical aspects, and there is a need for a more hands-on understanding of the basic principles.

Currently we have one experiential setup, the LETT (a simplified tensile tester machine), where students get hands-on experience on material properties such as Young's modulus and yield strength. However, there is a lack of diversity in experiential setups, particularly those

related to manufacturing techniques, product architecture, and statics. The desire is to broaden the students' practical exposure beyond the existing setup.

We want to improve (y)our education by developing additional experiential machines and workshop materials aligned with our Productive Failure approach. Specifically, we are seeking a student who can work on machines related to manufacturing techniques (e.g., injection molding), product architecture (e.g., different fastener techniques), and statics (e.g., bending of beams).

Coaches: Bas Flipsen and Stefan Persaud 😊

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Contact Bas Flipsen or Stefan Persaud for more details on how you can contribute to enhancing our educational and furthering the Productive Failure approach in our course.

IPD GRADUATION PROJECT