HOW DO I JOIN?

Step 1 – Speak with you advisor

Step 2 – Contact Matthew Nelson or Jim Benson (mnelson@iastate.edu) (jdbenson@iastate.edu)

Step 3 – Find a Professor to advise your project

Step 4 – Sign up for AerE 290 or AerE 490

Its that simple!

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Make To Innovate (M:2:I) is an exciting new program in the Aerospace Engineering Department that engages students in hands-on projects to augment their understanding of engineering fundamentals.

In a recent testimony to Congress, Regina Dugan, the DARPA Director, spoke of one of our Nation’s biggest challenges: the decline in our ability to make things. Simply stated, “to innovate, we must be able to make”. We intend to re-energize our approach to design by introducing “Make to Innovate,” in which students will learn how to design and operate aerospace systems. They will have the opportunity to build things, and they will be able to break things to learn from their failures. We are also introducing students to some of the complexity of systems and the concept of design optimization, concepts they will carry forth throughout their career.

ABOUT M:2:I

The M:2:I Complex is dedicated lab space for student projects. These new facilities will be available for projects and will have controlled access to a wide-range of tools and electronics, under the supervision of: Matthew Nelson and Jim Benson.

M:2:I Complex in Howe Hall
Hands-On Lab 0618
Fab Lab 0224
Team Lab 0620
Electronics 0620D
Clean Room 0620E
Final Assembly 0620C

WHY SHOULD I JOIN?

We encourage students to sign up for projects that under M:2:I and get course credit for doing so (AerE 290 and AerE 490). These projects will be interesting to our students and include projects drawn directly from industry, from ideas developed within the department and from external competitions. All students within the Department are encouraged to get involved at any time during their educational program. We also encourage students outside of our department to participate in multidisciplinary teams.

The Hands-On Lab will be used primarily for freshman projects, and will be available for design–build–fly experiences. The Fab Lab will provide more sophisticated tools such as our new 3D foam cutter, a CNC machine, drill presses, a paint booth and other manufacturing capabilities. The Team Lab will give students a place to meet and collaborate on their projects and provide computer workstations with industry standard software to aid in the research and design phase of their project. This lab also houses an electronics facility, a spacecraft clean room, and a final assembly facility. It also has the new mission control center for high altitude and spacecraft communications.