

BENEFITS OF MOBILE STUDIO:

- **Every Student Participates** – Every student is now able to have a Mobile Studio Instrumentation Board to do a home lab individually, both in and out of class, eliminating the requirement to work in groups due simply to equipment limitations. (*Please note: teamwork will be retained where it makes pedagogical sense*)
- **Intimidation is Eliminated** –Homework often reduces to students looking for formulas to plug numbers into (template matching), thereby minimizing its effectiveness. A take-home laboratory in addition to traditional (and new synergistic) homework provides further opportunity for students to learn about real-world applications. Students don't feel intimidated by peers or professors; not to mention the clock. In short, their natural inquisitive instincts are encouraged to reappear without the fear of failure.
- **Individualized Experiments** – In the classroom, largely due to time constraints, students typically follow a step-by-step set of instructions to take measurements. This “cookbook” method allows for no creativity. With a take-home lab, students are provided a statement of the problem to be explored or the quantities to be measured -- and then take on the role of an advisor in class – as they devise their own procedures to acquire and analyze the data (which they will begin in class and later complete as homework). This offers the students an opportunity to experience being “real” scientists and engineers (*possibly for the first time*); where they are not held by the hand throughout the laboratory.
- **Inexpensive** – The Mobile Studio Instrumentation Board is \$150, which is about the cost of a textbook. It is a device that the students own throughout their entire undergraduate careers, having applications beyond that of a particular class. For instance, the device could be used as a meter, scope or a controller (using the digital I/O in conjunction with the analog I/O); providing a highly useful project tool (signal processor/controller) for any individual studying to become a scientist or engineer.