

Abstract Submitted
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Teaching Electronics with an Arduino Microcontroller HERBERT
JAEGER, Miami University — We have been teaching an electronics instrumenta-
tion laboratory course for well over 20 years. From the very beginning the central
theme was interfacing physics apparatus to microcomputers, beginning with Apple
and Intel-based PCs using some form of BASIC language and later moving to Lab-
VIEW software and National Instruments data acquisition hardware. More recently
we have begun to incorporate microcontrollers into our curriculum. We are using the
Arduino platform, because it is open source, very affordable, and there exists a large
community to turn to for help with problems of all sorts. Programming the Arduino
is quickly learned, in particular by students who are familiar with introductory-level
C or Java programming. We report on the capabilities of the Arduino and how we
use it in our electronic instrumentation laboratory.

Herbert Jaeger
Miami University

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