

Abstract Submitted  
for the OSS14 Meeting of  
The American Physical Society

**Pushing a Foucault Pendulum with an Arduino** HERBERT  
JAEGER, Miami University — A Foucault pendulum is a popular exhibit found  
in many physics buildings and science museums around the world. A typical Fou-  
cault pendulum consists of a heavy bob attached to a long cable and has a period  
of several seconds. Its precession is a function of the latitude and is of order 10  
degrees/hour at locations in the continental US. Even the heaviest pendulum is sub-  
ject to energy loss due to air drag and other dissipative processes and will eventually  
stop. Therefore some kind of a drive is required to keep the pendulum going with-  
out affecting the Foucault precession unduly. Miami's Physics Department is moving  
into a new building later this year, and we will use this opportunity to upgrade our  
magnetic drive system and also design a detector for indicating and recording the  
precession of the pendulum. This presentation shows different forms of drives that  
can be employed and discussed the advantages of each, as well as some problems  
that are encountered when working with Foucault pendula.

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Date submitted: 14 Mar 2014

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