

HOW TO...

INSTALL TIMERS ON LAB EQUIPMENT



SUSTAINABILITY OPPORTUNITY

Laboratory equipment makes up approximately 11% of Stanford's electricity consumption. One easy way to reduce energy is to turn equipment off when not in use. Often times lab equipment is left on during the day, but could be turned off at night and on weekends. Outlet timers can shut down and start up equipment automatically at set times, cutting off the electricity to equipment when not needed. Outlet timers have shown to reduce equipment energy consumption up to 50%, resulting in energy cost savings for the lab and department. Timers can also reduce the fire hazard risk of having electrical heating equipment on when no one is in the lab. The Cardinal Green Labs program provides free timers and installation.

HERE'S HOW:

1) Identify Equipment

Identify equipment in your laboratory that is often left on but could be turned off at night and on the weekends without interfering with your research. Examples include heating blocks, centrifuges, PCR machines, and printers.

2) Express Interest

Contact the Cardinal Green Labs program to express your interest. Contact information is listed at the back of this fact sheet.

3) Determine Energy Savings

To receive your equipment timers, the Cardinal Green Labs program will need to determine how much energy will be saved to ensure that installing a timer will have at least a five-year cost savings payback. There are two ways of doing this:

- For common equipment, on which other labs have already installed timers, the Cardinal Green Labs program will already have measured and calculated energy savings. If that is the case, no additional measurements are needed.
- On less common types of laboratory equipment, the Cardinal Green Labs program will install an energy meter on the equipment you are interested in attaching to a timer. A Cardinal Green Labs representative will meter the energy use for a week to determine how much energy a timer would save and ensure that a timer will not disrupt the lab's research. If the energy measurements demonstrate that energy saved will pay back the cost of the timer in the next five years, then the equipment is eligible.



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4) Install Timer

A Cardinal Green Labs representative will come to the lab and install the timers. Installing the timer is a simple process. The timer is approximately the size of a coffee mug and is plugged into an outlet. The equipment is then plugged into the timer. The timer is programmed to turn off at set hours. The Cardinal Green Labs representative will work with the lab manager to determine the appropriate times to turn off the equipment. The representative will also show the lab manager how to adjust the timer settings and override the timer if necessary.

5) Educate Lab Occupants

Educating your occupants is important to ensure that the timer achieves maximum energy savings. You can send an email out to lab occupants letting them know which equipment has been placed on a timer, the shut-off times of the timer, and how to override the timer if necessary. You can also post small educational signs on or next to the equipment. Email templates and signage is available through the Cardinal Green Labs program.

6) Monitor

Every so often, check if the timer is plugged in and has the appropriate shut-off times. If the timer is no longer needed, contact the Cardinal Green Labs program. A Cardinal Green Labs representative will come pick it up and use it in another lab on campus.

This Equipment is on a Timer

To save energy, this machine is automatically turned off between the hours of ____pm and ____am, as well as on weekends.

To override the timer control:

Hit the “ON/AUTO/OFF” button until “ON” is displayed. When you are finished with the equipment, hit the button again until “AUTO” is displayed



Questions? Feedback? Contact your Lab Manager

Educational signage is available through the Cardinal Green Labs program.

MORE INFORMATION

CARDINAL GREEN LABS PROGRAM

<https://sustainable.stanford.edu/cardinal-green/cardinal-green-labs>

CONTACTS

Cardinal Green Labs Program: Rashmi Sahai, Assessments Program Manager, rsahai@stanford.edu
Sustainability Programs: Fahmida Ahmed, Director, fahmida@stanford.edu

