



SWEPT LAB

SANDIA WAVE ENERGY POWER TAKE-OFF

A mobile test lab for wave energy converter (WEC) power take-offs (PTOs)

Capabilities include:

- Linear and rotational PTOs
- Multiple degrees-of-freedom, with independent control
- Test stand will simulate dynamics (inertia, damping, stiffness, multi-body links) of full scale WECs, as well as input from waves and wave-body interactions

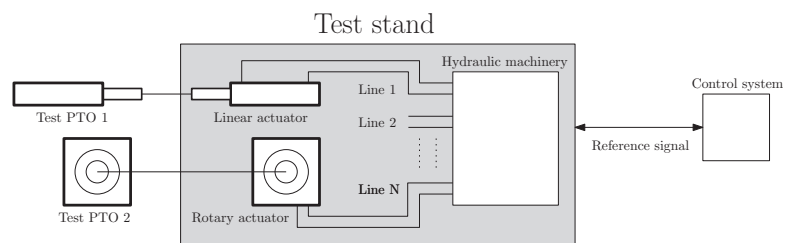
Actuator specs:

5 to 500 kW

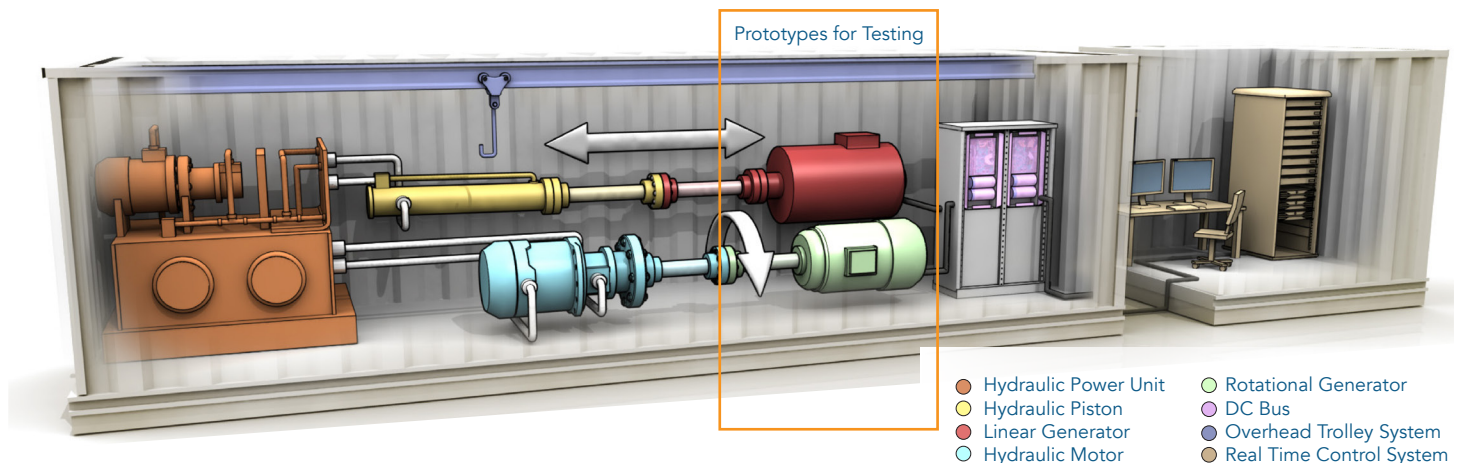
$0 < f < 2$ Hz

This system will allow for PTO studies including:

- System identification (SID)
- Real-time control
- Reliability analysis
- Grid interface simulations



\$1.2M of internal (Sandia) funding



Sandia National Laboratories



Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia, LLC, a wholly owned subsidiary of Honeywell International, Inc., for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-NA-0003525. SAND2017-4390 M