

Abstract Submitted  
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**Off-the-shelf Atom Trapping** SIMONE CARPENTER, JENNY NOVAK, MARCUS KIENLEN, ANDREW DAWES, Pacific University — We present results from a new commercial system available for cooling and trapping rubidium atoms in a Magneto-Optical Trap (MOT). The compact miniMOT system offered by Cold Quanta, Inc. consists of an ion pump, evacuated pyrex cell, and a rubidium source. The MOT system eliminates the need for ultra-high vacuum apparatus and expertise making it appropriate for undergraduate teaching and research labs. Our MOT has been implemented and maintained by student researchers. Using standard optical components, we have utilized three common trap geometries with this system: a standard spherical 6-beam MOT, a spherical mirror-MOT, and an anisotropic mirror-MOT. We present results of trap characterization and cold-atom spectroscopy in these configurations and discuss possible undergraduate teaching lab activities.

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