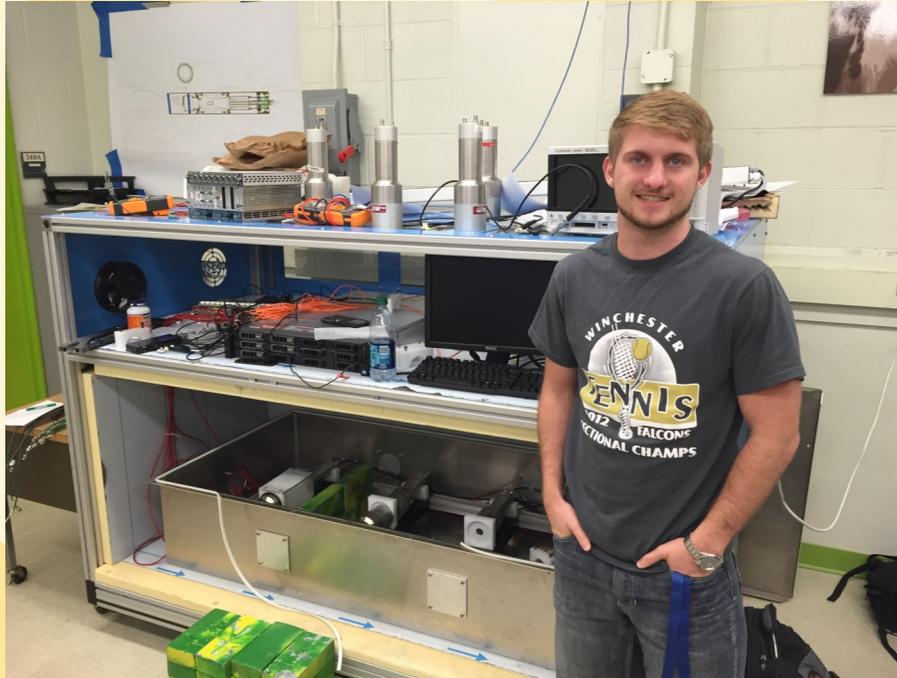


Department of Physics and Astronomy



REU 2015— Gavin Cox Dark Matter Group

As Earth moves around the Sun, the signal expected in a detector from dark matter changes with time. We have built an experiment to see how we can measure radioactive decays in a stable way across the seasons and if there are systematic errors due to yearly changes. We will be monitoring and attempting to control temperature, humidity, and magnetic field. Our plan is to take data for about a year and see if we can detect any changes. I've almost completed preparing the box in Dr. Lang's dark matter lab, and our experiment should be up and running shortly. It's a very exciting time to be working on this project.