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The WALTA Outreach project at the University of Washington

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Physicists in the experimental elementary particle and particle astrophysics groups at the University of Washington support an outreach project called WALTA, using support from the NSF/DOE Quarknet. We deal mostly with local high school physics teachers, providing them with hardware and software to implement air shower arrays, typically four counters in a 3-m square array. The electronics, provided by Quarknet, allows for coincidence experiments involving triggering and collecting data from any combination of counters, supporting study of muon decay as well as air shower detection. We provide a LabVIEW application that sets up configurations, controls the experiment, and provides some analysis. The teachers involve honors physics students in the setup and data collection. Data can be uploaded to QuarkNet or the UW for analysis. We have a few meetings per year for the students to come to the UW and give presentations on their experiences and conclusions.