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2015 Summer

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The MIT Wallace Observatory is a research facility run by the Planetary Astronomy Lab in the department of Earth, Atmospheric, and Planetary Sciences. There are 7 total telescopes at the facility, and this summer I'll be helping to convert the 10ft dome/telescope from remote to robotic operation in order to provide a platform for eventual year-round data collection. The dome can currently be used to observe from a remote location, however the goal is to eventually have the telescope able to observe completely automatically.

The facility conducts a number of research projects over the summer (this year's projects including Pluto Photometry and Astrometry, Centaur Photometry and Astrometry, Ceres Characterization, and Extra-Solar Planet Transit Light Curve Documentation). While my main responsibility at Wallace will be working on the conversion of the 10ft telescope, I will be testing changes by helping take data for all other projects.

The project will span the entire summer ending when Fall term begins. Work had already begun on the conversion of the telescope earlier in the year, but due to an

especially harsh winter, further plans were postponed until this summer. My contribution to the conversion and testing of the telescope is expected to require approximately 40hrs a week throughout the course of summer term. We'll hopefully complete the majority of the conversion early in the summer, using the rest of the time to test, make changes, and assist with other research. Once the changes are complete and the telescope is functional, I will write up the results and create a manual for telescope use.

My goal as an MIT student is to graduate with a degree in Aero-Astro Engineering with a Minor in Astronomy, so I was very excited to have the opportunity to work on a project where these two fields overlap to such an extent so early in my MIT career. I'm really looking forward to being able to work on a challenging engineering project while helping my peers take data for other projects that I also find fascinating. I'm thrilled to be able to work with a group of intelligent and like-minded individuals, working to further knowledge and understanding of the exact field I want to eventually work in.