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Designing an all-sky Camera to observe the weather conditions at the Murchison Widefield Array KALI JOHSON, LAUREN TURNER, JUDD BOWMAN , Arizona State University — The All-Sky Camera was created as a means to observe the weather conditions at the Murchison Widefield Array for the EDGES (Experiment to Detect the Global EoR Signature) project, under supervision of Professor Judd Bowman. The system was constructed using two cameras, one of which was is fairly standard color webcam, and another which was a more sophisticated, monochrome camera with a fisheye lens used for night sky imaging which was modified with a filter to take images both during the day and night. The two cameras are housed inside a Faraday cage-like enclosure to block out any radio wave emissions that may disturb the EDGES data. The webcam looks out over the horizon, while the fish eye camera is pointed towards the sky to record images throughout the day to give insight to the weather conditions over the array. The images provide the EDGES project with more insight to possible weather conditions and their effects on the recorded data and general operation of the hardware. The camera has been fully operational at the MWA and included in the public data archives since April 19th, 2015.

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