

Abstract Submitted
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2017 Total Solar Eclipse: Measurement and Analysis¹ JAXON TAYLOR, BOUBACAR WANE, EMILY TRAIL, DANIEL GASSEN, CAMERON CINNAMON, TERRY GOFORTH, TONY STEIN, WAYNE TRAIL, Southwestern Oklahoma State University — We traveled to Glendo, Wyoming, to observe the 2017 Total Solar Eclipse from the center of the eclipse path. We designed and built remote sensing microcontroller circuits to measure local temperature, pressure, relative humidity, and light intensity throughout the partial and total phases. We then distributed these stand-alone circuits across the eclipse path. We have used our data to determine the speed of the Moons shadow, which we compare to theoretical values. We have performed a similar comparison of measured solar brightness versus a theoretical estimate. We also used telescopes and cameras to photograph the eclipse from beginning to end, obtaining images of the Suns photosphere, chromosphere, and corona.

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