

Abstract Submitted  
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**Reproduction of Heinrich Hertz's Experiment of 1887** ZACHARY WILLIAMS, HUNTER SULLIVAN, Stephen F. Austin State University — In 1887, Heinrich Hertz confirmed the transmission of electromagnetic waves, which was theorized by James Clerk Maxwell. In his experiment, Hertz was able to detect and measure the wavelength and frequency of the transmitted wave. Hertz concluded that Maxwell's electromagnetic waves do in fact propagate through space at the speed of light. In this reproduction, a similar model was constructed to detect these electromagnetic waves. The initial design was constructed to confirm consistent successful transmission. This design included a RLC circuit and a one-meter diameter loop detection antenna made from copper tubing. Work is now being performed to measure both the wavelength and frequency in order to confirm the velocity of propagation for electromagnetic waves is the speed of light.

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