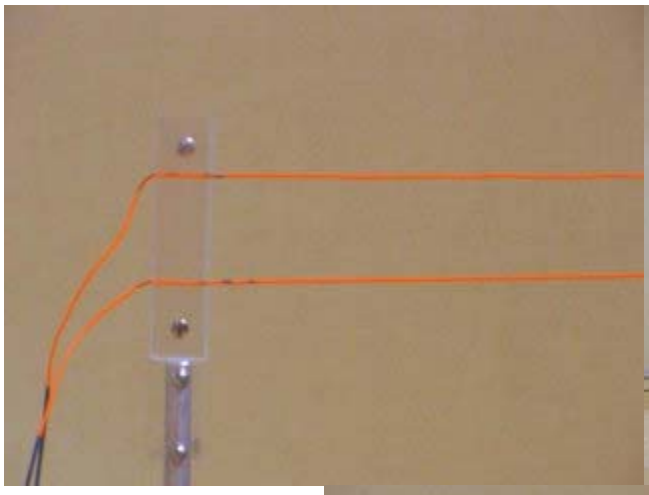
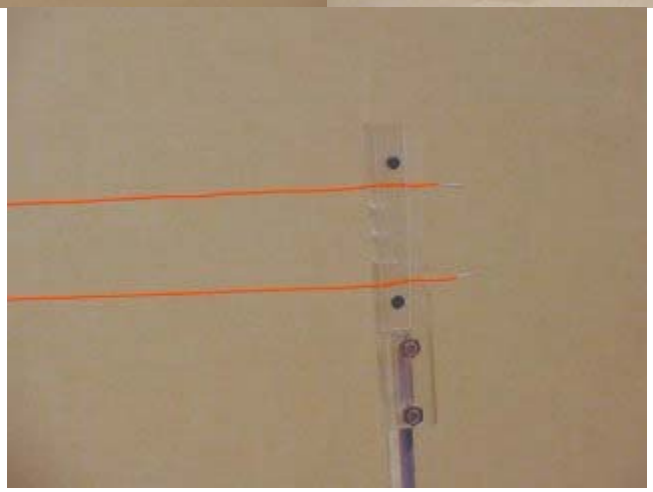
Question #254

Now we make the antenna half of its original length (2.47 m rather than 4.95 m in length), keeping everything else the same. The two ends of the antenna are shown without the fluorescent bulb, with the far end the same as in Question 253.



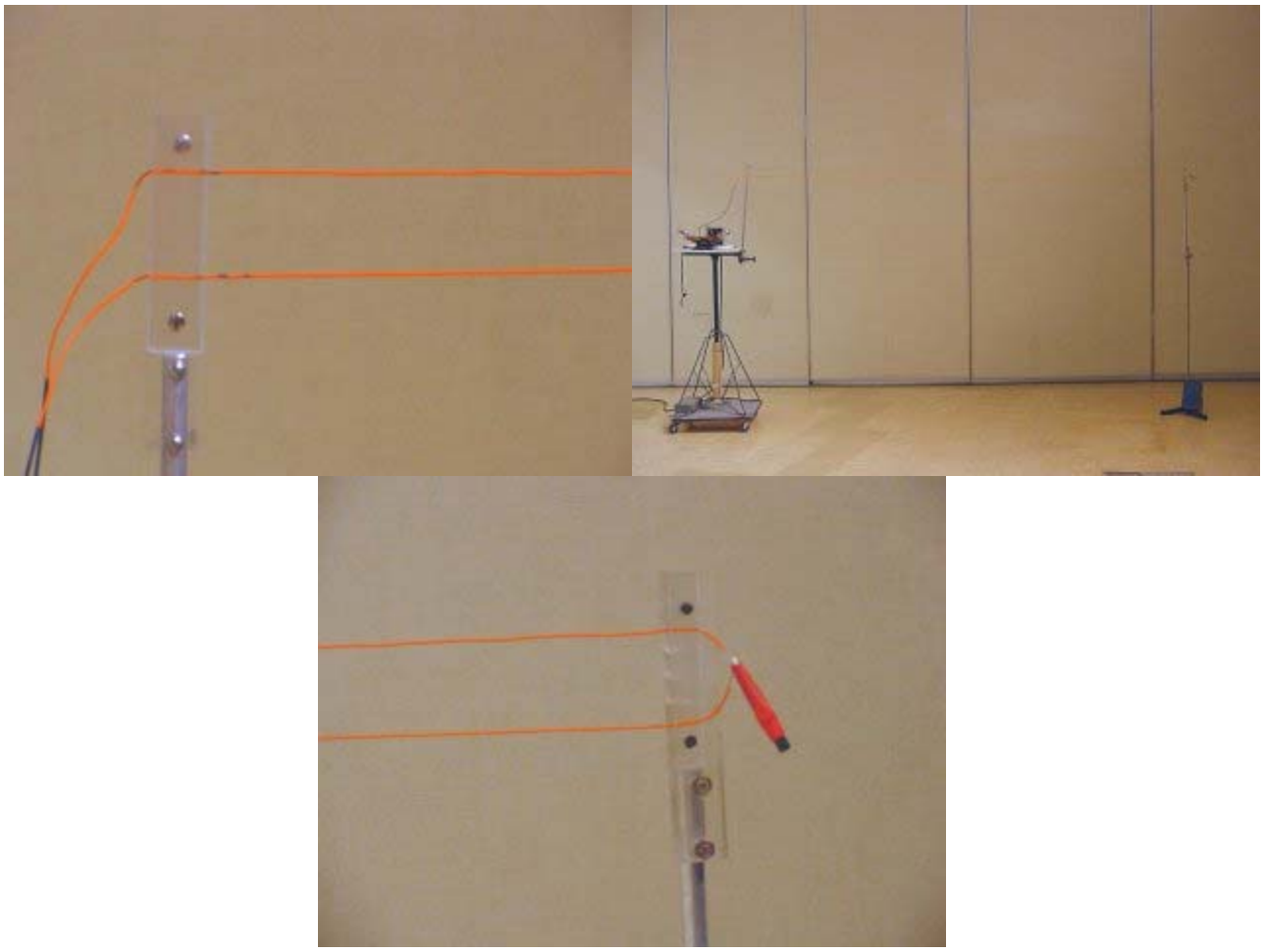


What will happen *now* when we move the light along the antenna?

What will the bulb do?

- (a) start bright and decrease intensity.
- (b) start dim and increase intensity.
- (c) start bright, oscillate in intensity, and end dim.
- (d) start dim, oscillate in intensity, and end bright.
- (e) other.

Now suppose that we connect the two wires at the far end of the antenna but keep the end by the oscillator the same.



What will happen *now* when we move the light along the antenna?

The bulb will:

- (a) start bright and decrease intensity.
- (b) start dim and increase intensity.
- (c) start bright, oscillate in intensity, and end dim.
- (d) start dim, oscillate in intensity, and end bright.
- (e) other.

Click here for Answer #254 after May 22, 2006.

Question of the Week

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For questions and comments regarding the *Question of the Week* contact Dr. Richard E. Berg by e-mail or using phone number or regular mail address given on the Lecture-Demonstration Home Page.