

## Pre-lab assignment for the Capacitors experiment

Name: \_\_\_\_\_ BU ID \_\_\_\_\_

Date: \_\_\_\_\_

Open the following link <http://phet.colorado.edu/en/simulation/capacitor-lab> and Run the simulation “Capacitor Lab”.

1. Using the default values for the plate area and the distance between the plates, calculate the capacitance of the capacitor in the picture.

2. Imagine that you have a capacitor with round plates, instead of the square plates shown in the simulation. In your capacitor with round plates, the separation between the plates is four times larger than the separation between the plates of the capacitor in the simulation. Calculate the radius of one of the round plates, if your capacitor has the capacitance you calculated above.

3. Capacitors are very commonly used in many electronic devices. List below 5 devices that contain at least one capacitor.

1.

2.

3.

4.

5.