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Asynchronous Activity 3, Worksheet

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March 12, 2021

1 How to Submit this Worksheet

1. Download this PDF to your device.

2. Complete the procedure below.

3. Scan your document into a PDF using a Smartphone app, or simply a photo. One example app is

SimpleScanner. Websites also exist to convert jpg to PDF format (e.g. https://smallpdf.com/jpg-to-pdf).

4. Upload your worksheet PDF to Moodle via the submission link.

2 The Procedure

Repeat the procedure performed in the tutorial videos on Moodle: Asynchronous Lesson 3. However,

choose your own voltage values and capacitance values in the PHET capacitor basics HTML5 simulation.

Graph your results below, and label the axes of the graphs with the correct units.

Voltage (V)	Energy (pJ)
0	0
0.3	0.04
0.6	0.16
0.9	0.36
1.2	0.64
1.5	1

Capacitance: .89F

Plate Area: 400mm^2

Plate Separation: 4mm

Energy vs Voltage

$y = 0.4444x^2 - 4E{-}15x + 4E{-}16$

$R^2 = 1$

Energy (pJ) vs Volts (V)