Potential Mapping Lab Prelab Assignment

Physics 141, Fall 2021

1) a) While doing this lab what two things will be attached to one of the flat surfaces of the potential mapping table?
   b) Where will they be attached?

2) What should you do if a pattern is curled?

3) How will you draw the shape and location of the electrodes (under the table) onto the piece of paper (on top of the table)?

4) After connecting one end of the pair of red and black leads to the power supply, and one end of another pair of leads to the meter, their other ends need to be connected to something:
   a) What color of leads of the power supply and multimeter should be connected to each other?
      a. Where should those leads be connected to the experimental apparatus?
   b) Where on the experimental apparatus should the other power supply lead be attached?
   c) Where should the other meter lead be attached?

5) How accurate should the voltages that you write down be?

6) How many places should you mark along each equipotential?

7) Which electrode should be at zero volts for the Bar and Dot pattern? For the Faraday Ice Pail pattern?

8) How many equipotentials will you mark for the Bar and Dot pattern? For the Conductor and Insulator pattern? For the Faraday Ice Pail?