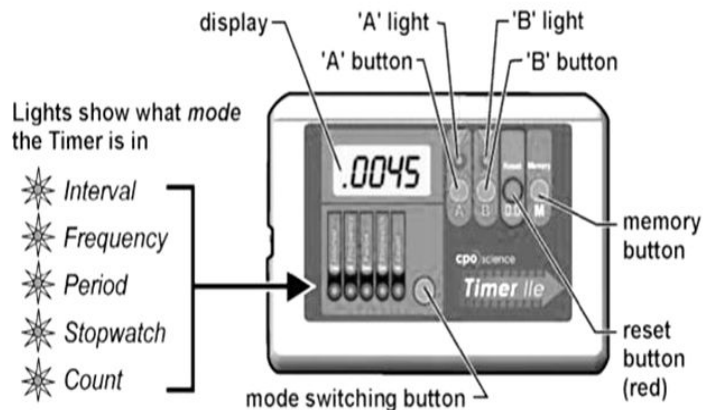


CPO Lab 2.1: Unit Time

Name _____ Period: _____

Pre-Lab: Identifying the parts of a CPO timer

The CPO unit is called a timer. The timer can be set to five different modes. List the modes below.

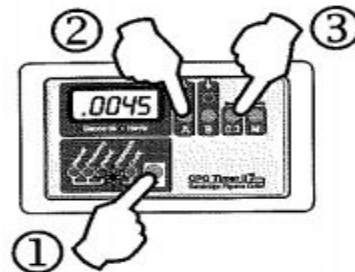


Which colored wire must be plugged into the A port? How will you remember this information?

Which colored wire must be plugged into the B port? How will you remember this information?

Part 1: Using the timer as a stopwatch. Set the timer to stopwatch!

You can approximate your reaction time by starting and stopping the timer as quickly as you can. Write down the reaction time for each of your group members.

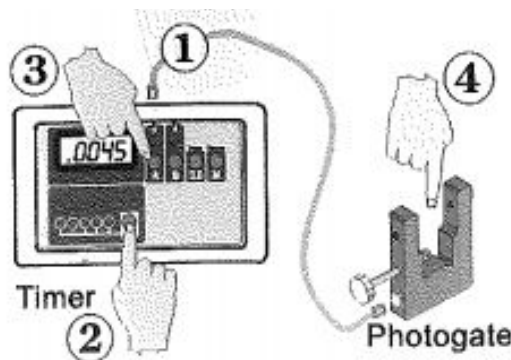


Part 2: Using the timer with photogate A only. Set the timer to interval!

a. Exactly what action do you take to start and stop the timer?

Be very specific in your answer.

b. If you block the light beam several times in a row, does the timer add each new measurement to the last one or does it start at zero every time you break the beam?



Part 3: Using the timer with photogates A and B.

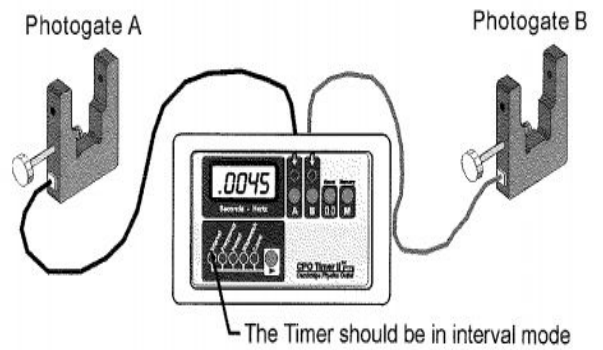
a. What starts and stops the timer when *only* the “A” light is on?

b. What starts and stops the timer when *only* the “B” light is on?

c. What starts and stops the timer when *both* “A” and “B” lights are on?

d. Does the timer still make measurements when there are no lights on?

e. What happens to the timer if you go through photogate A once and through photogate B multiple times?



Part 4: Accuracy, resolution and precision

a. *Resolution* means the smallest interval that can be measured. (HINT: Look at decimal points!)

Stopwatch resolution _____

Photogate resolution _____

b. Accuracy and precision. Describe the accuracy and precision of each dart game.





