

Name: \_\_\_\_\_

Partner: \_\_\_\_\_

Section: \_\_\_\_\_

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

Desk No. \_\_\_\_\_

This lab report template is for reference only. Please write your lab report on a separate paper.

Zero mark will be given if you write on this lab report template.

### **Title of the Lab Report**

#### **Purpose**

- State the purpose of this experiment.

#### **Apparatus**

- List of apparatus
- Diagram of the experiment setting (with labels)

#### **Data**

Table 1: Mass of carts and bars

|            | Mass (g) | Number of counter mass | Uncertainty (g) |
|------------|----------|------------------------|-----------------|
| Cart CC    |          |                        |                 |
| Cart DC    |          |                        |                 |
| Mass bar A |          |                        |                 |
| Mass bar B |          |                        |                 |

Table 2: Distance traveled and time interval

|             | Time (s) | Start position<br>CC (cm) | End position<br>CC (cm) | Distance<br>traveled<br>CC (cm) | Start position<br>DC (cm) | End position<br>DC (cm) | Distance<br>traveled<br>DC (cm) |
|-------------|----------|---------------------------|-------------------------|---------------------------------|---------------------------|-------------------------|---------------------------------|
| Case 1      |          |                           |                         |                                 |                           |                         |                                 |
| Case 2      |          |                           |                         |                                 |                           |                         |                                 |
| Case 3      |          |                           |                         |                                 |                           |                         |                                 |
| Uncertainty |          |                           |                         |                                 |                           |                         |                                 |

## Calculations

Table 3: Momentum Calculations

|        | Total mass<br>CC (kg) | Speed<br>CC (m/s) | Momentum<br>CC ( ) | Total mass<br>DC(kg) | Speed<br>DC (m/s) | Momentum<br>DC ( ) |
|--------|-----------------------|-------------------|--------------------|----------------------|-------------------|--------------------|
| Case 1 |                       |                   |                    |                      |                   |                    |
| Case 2 |                       |                   |                    |                      |                   |                    |
| Case 3 |                       |                   |                    |                      |                   |                    |

Sample Calculations (Keep 5 non-zero digits and underline the last sig. fig.)

- Total mass of CC in Case 2 = mass of Cart CC + mass of bar A  
= \_\_\_\_\_ kg + \_\_\_\_\_ kg  
= \_\_\_\_\_ kg
- Total mass of CC in Case 3 =...
- Speed and momentum calculation in each case.

## Conclusion

- Copy and fill in Table 4 in lab manual on page 3.
- Write down your result of the experiment (with correct number of sig. fig. and units).

## Discussion

Answer the 3 questions in the discussion session in your lab manual.