

LAB 03 – Equilibrium Of A Particle

FOLLOW THE STANDARD OUTLINE.

1 Objective

1-2 lines

2 Theory

Detail the theory of the materials relevant to this lab.

3 Experimental data

5.1 Graphical Analysis

- 1) 3 force vector diagram (with error force)
- 2) Determine the direction and magnitude of your error force
- 3) What thing(s) contribute to the error force

5.2 Analytical Analysis

- 1) Calculate the magnitude of the resultant force using A, B, and θ
- 2) Compare (using % error) whether R is equal to the magnitude of C

6.1 Analysis By Components

- 1) Calculate the x component of the 4 forces and see how close their sum is to zero
- 2) Calculate the y component of the 4 forces and see how close their sum is to zero
- 3) Determine the error forces magnitude and direction

4 Error Analysis

Discuss the sources of error in this Lab.

5 Conclusion

2-3 lines.