Physics Laboratory Report

Student Name Lab section

August 29, 2026

1 Purpose

Describe the physical system and the question being tested. State the expected relationship before collecting data.

2 Theory

Develop the relevant model and define every symbol. For constant acceleration,

$$x(t) = x_0 + v_0 t + \tfrac{1}{2} a t^2, \qquad v(t) = v_0 + a t.$$

List assumptions and explain where the model may fail.

3 Procedure

Describe the apparatus, alignment, calibration, independent variables, and the sequence of measurements. Include enough detail to repeat the experiment.

4 Data and results

Table 1: Illustrative measurements; replace with recorded data.

Time (s)	Position (m)	Uncertainty (m)
0.0	0.00	0.01
0.5	0.13	0.01
1.0	0.51	0.01
1.5	1.14	0.02

Show the fit or calculation and report final values with appropriate units and significant figures.

5 Discussion

Compare the experimental result with the theoretical prediction. Identify random and systematic uncertainties, and explain the dominant discrepancy.

6 Conclusion

State whether the evidence supports the hypothesis and propose one targeted improvement.