

Iowa State University

Aerospace Engineering

AER E 322 Lab 10

Structure Model Building

Matthew Mehrtens, Peter Mikolitis, and Natsuki Oda

April 19, 2023

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrtens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

Contents

| | | |
|----------|---------------------------------|----------|
| 1 | Pre-Lab | 2 |
| 1.1 | Introduction | 2 |
| 1.2 | Objectives | 2 |
| 1.3 | Hypothesis | 2 |
| 2 | Lab Work | 3 |
| 2.1 | Variables | 3 |
| 2.1.1 | Independent Variables | 3 |
| 2.1.2 | Dependent Variables | 3 |
| 2.2 | Work Assignments | 3 |
| 2.3 | Materials | 5 |
| 2.4 | Apparatus | 5 |
| 2.5 | Procedures | 5 |
| 2.5.1 | Setup | 5 |
| 2.5.2 | Cleanup | 5 |
| 2.6 | Data | 5 |
| 3 | Conclusion | 6 |
| 3.1 | Analysis | 6 |
| 3.2 | Conclusion | 6 |

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrrens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

Chapter 1

Pre-Lab

- 1.1. Introduction
- 1.2. Objectives
- 1.3. Hypothesis

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrrens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

Chapter 2

Lab Work

2.1. Variables

2.1.1. Independent Variables

2.1.2. Dependent Variables

2.2. Work Assignments

Refer to Table [2.1](#) for the distribution of work during this lab.

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrrens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

Table 2.1: Work assignments for AER E 322 Lab 10.

| Task | Matthew | Peter | Natsuki |
|-----------------|----------------|--------------|----------------|
| <i>Lab Work</i> | | | |
| Data Recording | | | |
| Exp. Setup | | | |
| Exp. Work | | | |
| Exp. Clean-Up | | | |
| <i>Post Lab</i> | | | |
| <i>Report</i> | | | |
| Introduction | | | |
| Objectives | | | |
| Hypothesis | | | |
| Variables | | | |
| Materials | | | |
| Apparatus | | | |
| Procedures | | | |
| Data | | | |
| Analysis | | | |
| Conclusion | | | |
| References | | | |
| Appendix | | | |
| Revisions | | | |
| Editing | | | |

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrtens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

2.3. Materials

2.4. Apparatus

2.5. Procedures

2.5.1. Setup

2.5.2. Cleanup

2.6. Data

Aerospace Structures Laboratory Report
Lab 10 Structure Model Building

Section 4 Group 2

Matthew Mehrrens, Peter Mikolitis, and Natsuki Oda

AER E 322

April 19, 2023

Spring 2023

Chapter 3

Conclusion

3.1. Analysis

3.2. Conclusion