

# PROJECT TITLE

MCHE ###: Class Name  
(Spring/Fall) 20XX

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## **Abstract**

Aliquam aliquet, est a ullamcorper condimentum, tellus nulla fringilla elit, a iaculis nulla turpis sed wisi. Fusce volutpat. Etiam sodales ante id nunc. Proin ornare dignissim lacus. Nunc porttitor nunc a sem. Sed sollicitudin velit eu magna. Aliquam erat volutpat. Vivamus ornare est non wisi. Proin vel quam. Vivamus egestas. Nunc tempor diam vehicula mauris. Nullam sapien eros, facilisis vel, eleifend non, auctor dapibus, pede. Ut nulla. Vivamus bibendum, nulla ut congue fringilla, lorem ipsum ultricies risus, ut rutrum velit tortor vel purus. In hac habitasse platea dictumst. Duis fermentum, metus sed congue gravida, arcu dui ornare urna, ut imperdiet enim odio dignissim ipsum. Nulla facilisi.

# 1 Introduction

This is the introduction section... Aliquam aliquet, est a ullamcorper condimentum, tellus nulla fringilla elit, a iaculis nulla turpis sed wisi. Fusce volutpat. Etiam sodales ante id nunc. Proin ornare dignissim lacus. Nunc porttitor nunc a sem. Sed sollicitudin velit eu magna. Aliquam erat volutpat. Vivamus ornare est non wisi. Proin vel quam. Vivamus egestas. Nunc tempor diam vehicula mauris. Nullam sapien eros, facilisis vel, eleifend non, auctor dapibus, pede. Ut nulla. Vivamus bibendum, nulla ut congue fringilla, lorem ipsum ultricies risus, ut rutrum velit tortor vel purus. In hac habitasse platea dictumst. Duis fermentum, metus sed congue gravida, arcu dui ornare urna, ut imperdiet enim odio dignissim ipsum. Nulla facilisi.

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## 2 Section 2

Aliquam aliquet, est a ullamcorper condimentum, tellus nulla fringilla elit, a iaculis nulla turpis sed wisi. Fusce volutpat. Etiam sodales ante id nunc. Proin ornare dignissim lacus. Nunc porttitor nunc a sem. Sed sollicitudin velit eu magna. Aliquam erat volutpat. Vivamus ornare est non wisi. Proin vel quam. Vivamus egestas. Nunc tempor diam vehicula mauris.

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### 2.1 Equations

Equations numbering and formatting is also handled nicely by L<sup>A</sup>T<sub>E</sub>X. An example equation is shown in (1).

$$\ddot{x}_1 = \frac{1}{m} (-kx_1 - c\dot{x}_1 + F) \tag{1}$$

The next equation is numbered automatically, as shown by (2).

$$\ddot{\theta} + \frac{g}{l}\theta = 0 \tag{2}$$

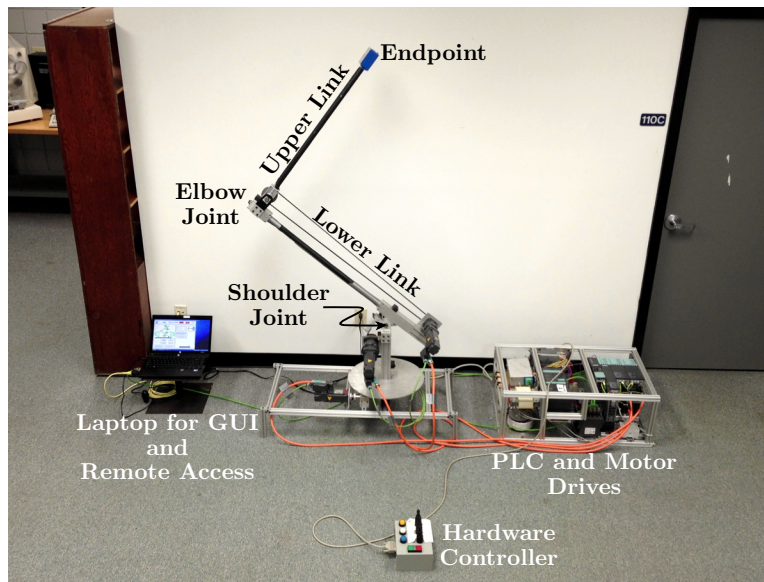


Figure 1: The Experimental Setup

Aliquam aliquet, est a ullamcorper condimentum, tellus nulla fringilla elit, a iaculis nulla turpis sed wisi. Fusce volutpat. Etiam sodales ante id nunc. Proin ornare dignissim lacus. Nunc porttitor nunc a sem. Sed sollicitudin velit eu magna. Aliquam erat volutpat. Vivamus ornare est non wisi. Proin vel quam. Vivamus egestas.

## 2.2 Using Figures

The experimental platform is shown in Figure 1.  $\text{\LaTeX}$  will handle numbering the figures in the order that they appear and inserting a properly formatted caption. If the figure file is not in the same folder as your  $\text{\LaTeX}$  document, then you need to specify the relative path to it. The figure environment is very powerful and customizable. A more thorough review of using figures in  $\text{\LaTeX}$  can be found at:

[http://en.wikibooks.org/wiki/LaTeX/Floats,\\_Figures\\_and\\_Captions](http://en.wikibooks.org/wiki/LaTeX/Floats,_Figures_and_Captions)

## 2.3 Using Tables

A table is shown in Table 2.3. Table captions should go above your tables.  $\text{\LaTeX}$  will handle this, along with numbering the tables in the order that they appear. There are many tools for creating  $\text{\LaTeX}$  tables, including some macros that will do so from an Excel file, or similar.

Table 1: Parameters Used In Simulation

Parameter	Value
Leg Mass, $m_l$	0.175 kg
Actuator Mass, $m_a$	1.003 kg
Natural Frequency	11.13 Hz
Gravity	$0.276g \frac{m}{s^2}$
Stroke Length, $(x_a)_{max}$	4 mm
$(\ddot{x}_a)_{max}$	$25 \frac{m}{s^2}$
$(\dot{x}_a)_{max}$	$0.4 \frac{m}{s}$

### 3 References

You should use `BIBTEX` to manage your references, using IEEE-style references. Use the `\cite{}` command in the text and the `\bibliography{}` command at the end of the document. This will look something like:

```
Proin ornare dignissim lacus. Pellentesque vel dui sed orci
faucibus iaculis. Suspendisse dictum magna id purus tincidunt
rutrum \cite{author1:YYa, author1:YYb, author2:YYa}. Nulla congue.
Vivamus sit amet lorem posuere dui vulputate ornare. Phasellus
mattis sollicitudin ligula. Duis dignissim felis et urna
\cite{author3:YYa, author1:YYa}. Integer adipiscing congue metus.
```

```
% Then, at the end of the document where you would like the bibliography to be:
\bibliography{bibtex_filename}
```

```
% The .bib file, named bibtex_filename, in the above command contains the
% "authorN:YYn" citation IDs used in the document and the information for them.
```

After you make any changes to the `\cite{}` commands in the document, there is a three step process needed for the reference changes to propagate through the document. You need to:

1. Compile the `LATEX` document
2. Process with `BIBTEX`, then
3. Compile with `LATEX` *twice*

If you follow this procedure, then `LATEX` will handle the numbering of your citations and the ordering of your bibliography automatically. More information on using `BIBTEX` can be found at:

[http://en.wikibooks.org/wiki/LaTeX/Bibliography\\_Management#BibTeX](http://en.wikibooks.org/wiki/LaTeX/Bibliography_Management#BibTeX)

## 4 Conclusion

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