


## Getting Started Manual

### MATLAB

#### RUNNING THE PROGRAM

- 1) Open the MAIN.m file with MATLAB.
- 2) Select the green play button on the top toolbar. 
- 3) If a prompt appears asking about a wrong path, click "Change folder".

#### WRITING YOUR GROUP NUMBER

You need to replace group ABC by your own group XYZ.

- 1) If not done already, close MATLAB and SolidWorks and rename the folder "C:\groupABC\" to "C:\groupXYZ\".
- 2) Open the MAIN.m file with MATLAB
- 3) Open the find and replace tool of MATLAB (CTRL+F on the keyboard).
- 4) Type "ABC" in "Find what".
- 5) Type your group number "XYZ" in "Replace With".
- 6) Press "Replace All".
- 7) Repeat with the file "Design\_code.m" in the Subfunctions folder.
- 8) Run the program again (steps 1 to 3) to ensure the program still runs and that your group number appears at the top of the GUI.

#### NAVIGATING THE PROGRAM

- 9) On the current folder box, right-click on "MAIN.fig" and select "Open in GUIDE". Alternatively you can also type "guide" in the command window. This will open the Graphical User Interface Design Environment. From there select the file "Main.fig".
- 10) Drag and drop controls from the left menu on the user interface to add new functionality.
- 11) Double-click on any control to change its properties (text, color, size, etc...).
- 12) Right-click on any control and navigate to "View Callbacks" to access the various events for that control. For example, selecting "Callback" will show you the section of the code that is executed when the control is clicked by the user.
- 13) Open the callback for the "Generate" button, and scroll down the code until you see:

```
Design_code(axial_force, number_of_weights, shaft_length);
```

- 14) From there, right-click on "Design\_code" and select "Open Design\_code". The function is opened. This is the main design function where all your formulas are coded.