

Music and Media – Mr. Wie
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This week, we will get the software installed and begin working on engraving a score.

The first step is to obtain the engraver program at: <http://lilypond.org/web/install/>
And install it to your machine. Versions are available for almost every kind of operating system in existence (Mac OS X, Windows, Linux, etc.) and you will need to select the appropriate version from the download page. Once it is downloaded, install the program by double-clicking on the file.

Using Lilypond **can** be a complex process, if you do not read the instructions. Here you will find a tutorial on all of the basic features of the program necessary to handle the upcoming assignment (this is also posted on the class website):

<http://lilypond.org/doc/v2.8/Documentation/user/lilypond/Tutorial.html>

**USE OF THIS TUTORIAL IS ABSOLUTELY REQUIRED FOR
BASIC COMPREHENSION OF THE USE OF THE ENGRAVING
SOFTWARE.**

HOMEWORK - PART 1

1. Install Lilypond (download the 2.8 Stable Branch version for PC or Mac).
2. Install a supporting text editor (i.e., jEdit) from the class webpage if you do not like using Windows Notepad or equivalent text editor. Please note that you **CANNOT** use Microsoft Word or other word processor to edit the source files!
3. Read the Tutorial in its entirety.
4. Attempt to engrave the following tune:

Twinkle Twinkle Little Star (1781/1782)
by W.A. Mozart

A A E E F# F# E
D D C# C# B B A
E E D D C# C# B
E E D D C# C# B
A A E E F# F# E
D D C# C# B B A

LILYPOND TUTORIAL

<http://lilypond.org/doc/v2.8/Documentation/user/lilypond/Tutorial>

The first example demonstrates how to enter the most elementary piece of music, a [scale](#). A [note](#) can be entered by typing its name, from `a' through `g'. So, if you enter

```
{  
c d e f g a b  
}
```

the result looks like this



Every piece of LilyPond input needs to have {curly braces} placed around the input. For the rest of this manual, most examples will omit these braces, but don't forget them in your own music!

In addition, many examples use *relative mode*. This is explained in [Octave entry](#); for now simply be aware that some examples should be placed inside `\relative { ...music... }`

Finally, LilyPond input is case sensitive. `{ c d e }` is valid input; `{ C D E }` will produce an error message.

The [duration](#) of a note is specified by a number after the note name. `1' for a [whole note](#), `2' for a [half note](#), `4' for a [quarter note](#) and so on

```
a1 a2 a4 a16 a32
```



If you do not specify a duration, the duration last entered is used for the next notes. The duration of the first note in input defaults to a quarter

```
a a8 a a2 a
```



A [rest](#) is entered just like a note, but with the name `r`

```
r2 r4 r8 r16
```



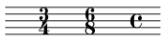
Add a dot `.` after the duration to get a [dotted note](#)

```
a2. a4 a8. a16
```



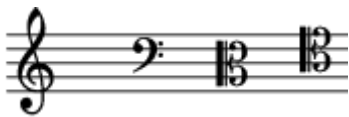
The (or [time signature](#)) can be set with the `\time` command

```
\time 3/4  
\time 6/8  
\time 4/4
```



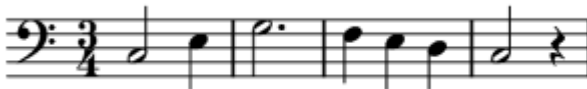
The [clef](#) can be set using the `\clef` command

```
\clef treble  
\clef bass  
\clef alto  
\clef tenor
```



Remember to enclose the notes and commands in curly braces { ... } to convert it to printable output.

```
\time 3/4  
\clef bass  
c2 e4 g2.  
f4 e d c2 r4
```



The example file you will start working with (save it to your desktop under a new name first, then enter your notes under the section “relative”:

```
%{

Welcome to LilyPond

=====

Congratulations, LilyPond has been installed successfully.

Now to take it for the first test run.

  1. Save this LilyPond file on your desktop.

  2. Pick it up from the desktop with your mouse pointer, drag and drop
     it onto the LilyPond icon.

  3. LilyPond automatically produces a PDF file from the musical scale
     below.

  4. To print or view the result, click on the newly produced file
     called

        Welcome_to_LilyPond.PDF

That's it. For more information, visit http://lilypond.org .

%}

\header{

  title = "A scale in LilyPond"

}

\relative{

  c d e f g a b c

}

\version "2.7.39" % necessary for upgrading to future LilyPond
versions.
```