

# Strings? Why not!

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# **Part I**

# **Guitar**

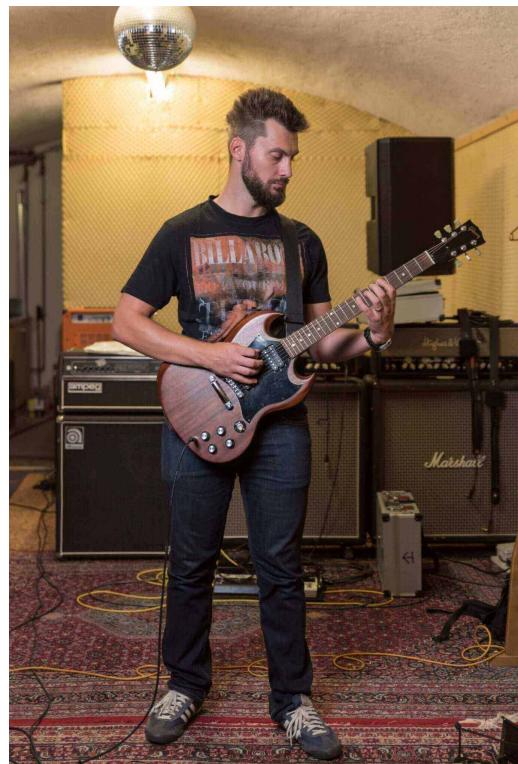


# 1 Getting ready to play

## 1.1 Sitting/standing position



(a)



(b)

Figure 1.1: [1]



This method assumes a right-handed player. If you are left-handed, replace “right” with “left” and vice versa.

Even though it may look cooler to place the guitar on your right leg. You will be more comfortable and precise when you are sitting the classical way. The classical way of sitting also translates better to a standing position (see 1.1b).

In the classical position you place the guitar on your left leg and the left leg will be slightly raised. You can use a foot stool this this (see the leeft foot in 1.1a).

## 1.2 Tuning

Your guitar needs to be in tune. This means that each string has a certain pitch. Even though this is already implied, it is important to note that the relative pitch difference per string is important as well.

In 1.2 you see the names (letters) from the thinnest (*e*) to the thickest (*E*) string.



Figure 1.2: Names of the guitar strings

A mnemonic is (from low/thick to high/thin):

- 6) E ddie
- 5) A te
- 4) D ynamite
- 3) G ood
- 2) B ye
- 1) e eddie



Note that things is the standard tuning. Sometimes the guitar will be tuned differently. But that will then be explicitly mentioned

You use a tuner to tune (see 1.3). The tuner either gives a note value, and then you have to tune up or down to get the correct note on the screen. Or it shows a string number and you have to get the 'pointer' in the middle.

Be careful with tuning the string up (to a higher pitch). Especially the thinner strings can break if they are too tight.



Figure 1.3: Using a tuner on a guitar

Another tuning options relies on the previously mentioned difference in pitch between the strings. In 1.4 you see which positions on the neck have the same pitch as the thinner string next to it.

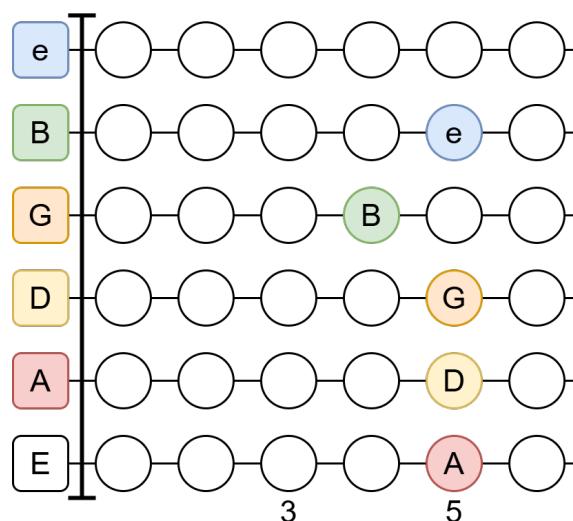


Figure 1.4: Relative tuning

## 2 First sounds

### 2.1 Fretboard

Each position on the neck has a different pitch. The metal bars on the neck are called the **frets**. For example, if someone asks to press the 2nd fret on the 3rd string, then you press your finger in the area of the green dot. Right next to the fret. See 2.1.

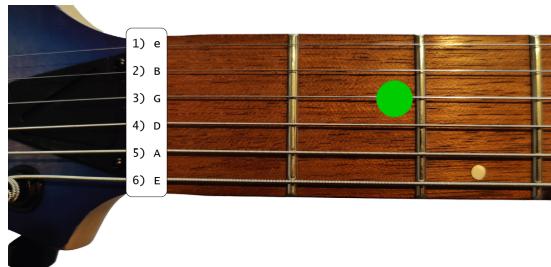


Figure 2.1: The green dot in the finger placement for the 2nd fret on the 3rd string

In music there are 12 different pitches before coming 'back around'. When you come back at the same note letter you are an octave higher. The 12 different notes are shown below.

A    A♯    B    C    C♯    D    D♯    E    F    F♯    G    G♯

You may see that there are only **7** different letters and **5** letters with a **#**. These **#**symbols are called **sharps**. On the fretboard a **#**means you move one fret up (to the body of the guitar).



The reason that there are not just 12 different letters like "A, B, C, D, E, F, G, H, I, J, K, L", has to do with the history of music.

In 2.2 you see a music staff with underneath it tablature (TAB). In the next section we will learn to read the notes. For now you can try to read the tabs first to play the sequence.

Each line in the TAB section represents a guitar string, with the 6th (thickest) string on the bottom. The numbers indicate which fret should be pressed (a 0 means an open string). So the TAB in 2.2 says to first play an open A string, and then play each ascending fret up to the 12th fret.

Figure 2.2: An octave from A to A on the 5th A string

## 2.2 Finger names

When playing guitar, your fingers will be given a name. This makes it easier in music notation to indicate which finger should be used. The names are shown in 5.5.

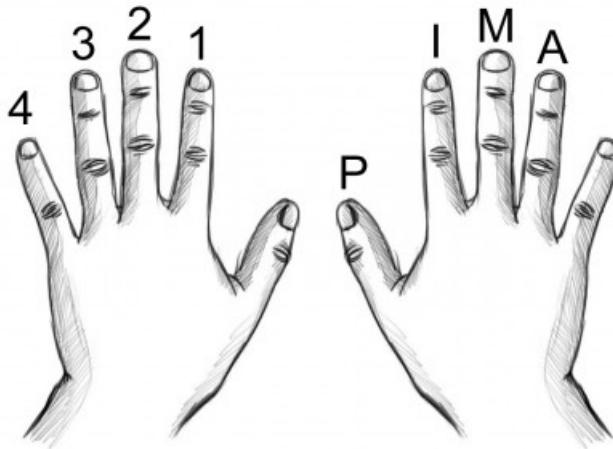


Figure 2.3: Names of the fingers [3]

### 2.2.1 Free and rest stroke

With a free stroke you hold your right hand in a relaxed position over the strings (see 5.6). To play a string, move your finger through the string without lifting the upper part of your finger. Your finger should slightly curl into your hand. Once you made the sound, move your finger back to the relaxed position.

The trick now is, to not hit the other strings, and to not 'pluck' the string (making a buzzing sound).



(a)



(b)

Figure 2.4: Free stroke position [2]

A rest stroke may sound a bit louder (but with some practicing a free stroke can be as loud). Like the name suggests, a rest stroke means that you move your finger through a string to play it, but now you let your finger rest on the next string.

### 2.2.2 Exercises

In the exercises below you see some symbols above the notes. The numbers with circles around them indicate on which string the note should be played (this can also be seen from the TAB). The *i* and *m* indicate which right-hand finger should be used to play the note.

Play exercise 2.5 first with a rest stroke and then with a free stroke to feel the difference.

Figure 2.5: Exercise: rest and free strokes

This second exercise (2.6) is similar to 2.5, but a bit more challenging.

Figure 2.6: Exercise: changing strings with *i* and *m* fingers

To make use of all PIMA fingers, try to play the intro of *Nothing Else Matters* from *Metallica*. Play 2.7 with a free stroke.

#### Nothing Else Matters - Metallica

Intro

Figure 2.7: Exercise: PIMA with Nothing Else Matters - Metallica intro

In 2.8 you will also use your left hand. The numbers above the notes indicates which left-hand finger should be used to press the fret. Play this exercise using alternating *i* and *m* fingers.

Figure 2.8: Exercise: fretting on 1st string

Exercise 2.9 is adds another string to the exercise.

Figure 2.9: Exercise: fretting on 1st and 2nd string

# 3 Music notation

## 3.1 Music notation anatomy

### 3.1.1 Note names

You have already seen the music staff from 3.1 in the previous exercises. However, the meaning of it was not explained yet.

The letters A-G on the staff show which line on the staff has which note value. The notes that are in between the lines nicely spell out "FACE", making it easy to remember. The notes that are on the lines can be remembered with the mnemonic "Every Good Boy Does Fine". But another important thing to see is that the notes go up alphabetically (starting again with A after G).

The most left symbol () is called the G clef. Note that the curl of the G clef is on the line of the G note.

The vertical line in the middle indicates the start/end of a new measure, and the thinner vertical line in at the end indicates the end of the piece.

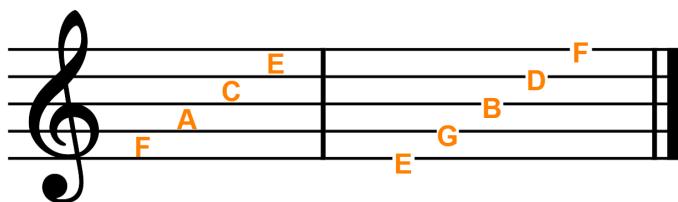


Figure 3.1: Note names on the staff in two measures

### 3.1.2 Time signatures

So far we have also only seen one type of note. The quarter note. However, there are more. See 3.2. The  $\frac{4}{4}$  means that there can fit 4 (top number) quarter notes (bottom number) in a measure.



Figure 3.2: Note duration

**Important:** A whole note (o) equal 4 quarter notes (q). It does **not** equal a whole measure.

There are also other time signatures. But they all have the meaning. The top value indicated how many notes of the bottom number's duration fit in a measure. So a  $\frac{3}{4}$  time signature can fit 3 quarter notes per measure. And a  $\frac{6}{8}$  time signature can fit 6 eighth notes per measure. Note that  $\frac{3}{4}$  and  $\frac{6}{8}$  actually indicate the same duration per measure, but they indicate a different feel. This is indicated in 3.3

In 3.3 you also see a new duration notation. In the first measure with  $\frac{6}{8}$  timing, there are dots next to the notes (p<sup>.</sup>). This means that the note has a duration of 1.5x its original duration.



Figure 3.3: Time signatures

Remember exercise 2.7 (Metallica - Nothing else matters (intro))? That is also in  $\frac{6}{8}$ .

### 3.1.3 Exercise

In preparation to play the well-known "Tetris" tune, the notes from 3.4 should be learned.

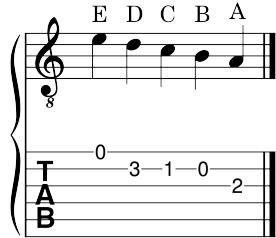


Figure 3.4: Notes used for the first part of the Tetris tune

In 3.5 the first part of the Tetris tune is written. This time no TABs are shown. This exercise has 4 different note durations and 5 different notes pitches.

### Tetris (first part)



Figure 3.5: First part of the Tetris tune



The "Tetris" tune is actually derived from a Russian folk song called "Korobeiniki", which is based on a similar named poem written by Nikolai Nekrasov.



## **Part II**

# **Ukulele**



## **4 Getting ready to play**

## 4.1 Tuning

Your Ukulele needs to be in tune. This means that each string has a certain pitch. Even though this is already implied, it is important to note that the relative pitch difference per string is important as well.

In 4.1 you see the names (letters) of the string.

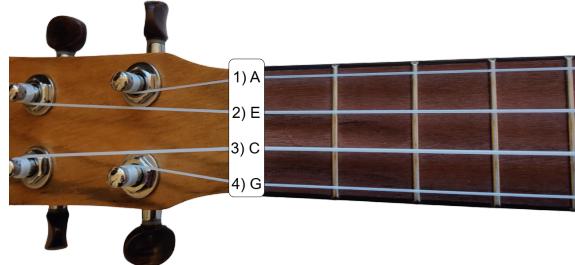


Figure 4.1: Namen van de ukulele snaren

A mnemonic is (from string 4 to 1):

- 4) **G** ood
- 3) **C** cooks
- 2) **E** eat
- 1) **A** all

You use a tuner to tune (see 4.2). The tuner either gives a note value, and then you have to tune up or down to get the correct note on the screen. Or it shows a string number and you have to get the 'pointer' in the middle.

Be careful with tuning the string up (to a higher pitch). Especially the thinner strings can break if they are too tight.



Figure 4.2: Using a tuner on a ukulele

Another tuning options relies on the previously mentioned difference in pitch between the strings. In 4.3 you see which positions on the neck have the same pitch the a thinner open string.

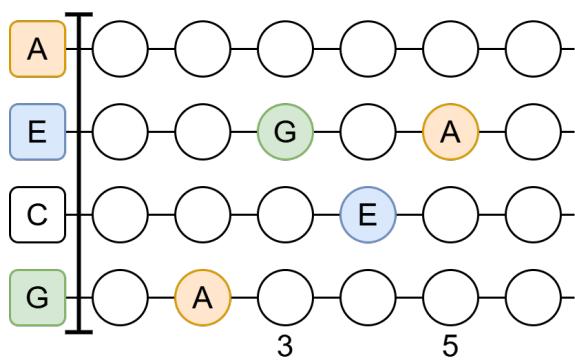


Figure 4.3: Relative tuning

# 5 First sounds

## 5.1 Fretbord

### 5.1.1 Notennamen

Each position on the neck has a different pitch. The metal bars on the neck are called the **frets**. For example, if someone asks to press the 2nd fret on the 3rd string, then you press your finger in the area of the green dot. Right next to the fret. See 2.1.

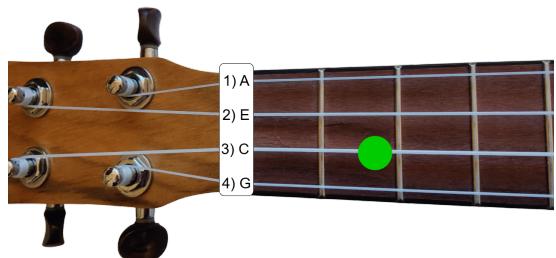


Figure 5.1: Het groene puntje is de 2e fret op de 3e snaar

In music there are 12 different pitches before coming 'back around'. When you come back at the same note letter you are an octave higher. The 12 different notes are shown below.

A A♯ B C C♯ D D♯ E F F♯ G G♯

You may see that there are only **7** different letters and **5** letters with a ♯. These ♯ symbols are called **sharps**. On the fretboard a ♯ means you move one fret up (to the body of the guitar).

In 5.2 you see a music staff with underneath it tablature (TAB). In the next section we will learn to read the notes. For now you can try to read the tabs first to play the sequence.

Each line in the TAB section represents a ukulele string, with the 4th (G) string on the bottom. The numbers indicate which fret should be pressed (a 0 means an open string). So the TAB in 5.2 says to first play an open G string, and then play each ascending fret up to the 12th fret.

Figure 5.2: An octave from C to C on the 3rd C string with sharps

Remember the relative tuning? This implies that the same note (and pitch) can be played on different string. This is demonstrated in 5.3.

Figure 5.3: An octave from C to C on strings 1 to 3 with sharps

Besides sharps there are also flats. A flat ( $\flat$ ) means to go a halve tone (one fret) down. Rewriting 5.3 with flats would look like 5.4.

In 5.4 also a new symbol is shown the natural ( $\natural$ ). This means that the note on which a  $\flat$  or  $\sharp$  was placed, now is 'normal' again. Whenever a  $\flat$  or  $\sharp$  is added to a note, it remains valid for this note up to the end of the measure. What a 'measure' is will be explained later.

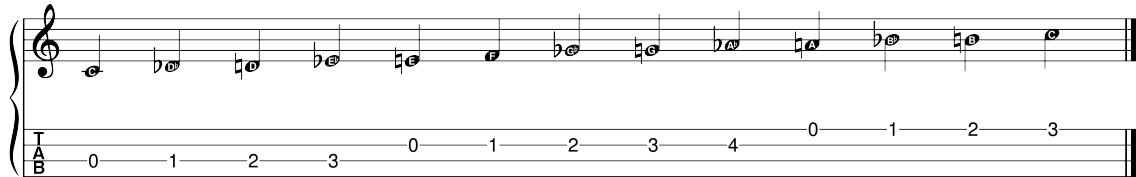


Figure 5.4: An octave from C to C on strings 1 to 3 with flats and naturals

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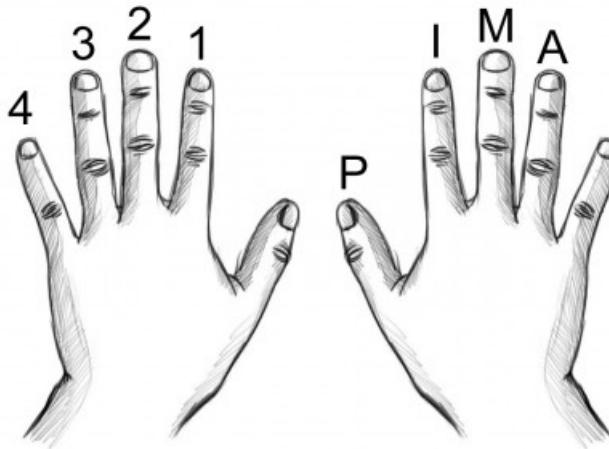


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(a)



(b)

Figure 5.6: Free stroke position [2]

A rest stroke may sound a bit louder (but with some practicing a free stroke can be as loud). Like the name suggests, a rest stroke means that you move your finger through a string to play it, but now you let your finger rest on the next string.

### 5.2.2 Exercises

In the exercises below you see some symbols above the notes. The numbers with circles around them indicate on which string the note should be played (this can also be seen from the TAB). The *i* and *m* indicate which right-hand finger should be used to play the note.

Play exercise 5.7 first with a rest stroke and then with a free stroke to feel the difference.

Figure 5.7: Exercise: rest and free strokes

This second exercise (5.8) is similar to 5.7, but a bit more challenging.

Figure 5.8: Exercise: changing strings with *i* and *m* fingers

In 5.9 you will also use your left hand. The numbers above the notes indicates which left-hand finger should be used to press the fret. Play this exercise using alternating *i* and *m* fingers.

Figure 5.9: Exercise: fretting on 1st string

Exercise 5.10 is adds another string to the exercise.

Figure 5.10: Exercise: fretting on 1st and 2nd string



# 6 Music notation

## 6.1 Music notation anatomy

### 6.1.1 Note names

You have already seen the music staff from 6.1 in the previous exercises. However, the meaning of it was not explained yet.

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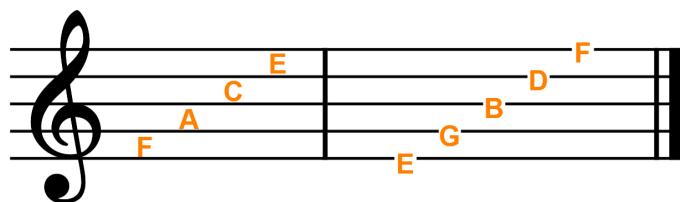


Figure 6.1: Note names on the staff in two measures

### 6.1.2 Time signatures

So far we have also only seen one type of note. The quarter note. However, there are more. See 6.2. The  $\frac{4}{4}$  means that there can fit 4 (top number) quarter notes (bottom number) in a measure.



Figure 6.2: Note duration

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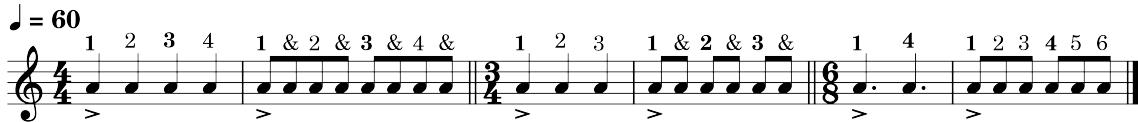


Figure 6.3: Time signatures

### 6.1.3 Exercise

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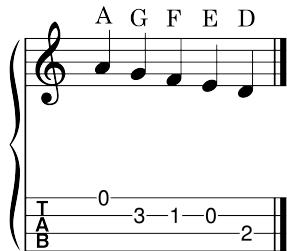


Figure 6.4: Notes used for the first part of the Tetris tune

In 6.5 the first part of the Tetris tune is written. This time no TABs are shown. This exercise has 4 different note durations and 5 different notes pitches.

### Tetris (first part)



Figure 6.5: First part of the Tetris tune



The "Tetris" tune is actually derived from a Russian folk song called "Korobeiniki", which is based on a similar named poem written by Nikolai Nekrasov.



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