

# Metronome Pro – User Manual

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Trailer: <https://www.youtube.com/watch?v=m0PuuYTB1o>

## Features:

### **Metronome:**

- + 100% Precise***
- + Works on Unity Audio Thread (never Desyncs)***
- + Measure, Step and Base Control***
- + Syncs automatically if the Song Time has changed.***
- + Set your own values for BPM, Offset, Step, Base***
- + Can change values on runtime***
- + Can make an action on every step***
- + Ticks and Steps Count***
- + See all Tick Times***
- + Infinity uses***

### **Music Player (Included):**

- + Play, Stop, or Pause Songs on Runtime with the Unity UI***
- + Change Song Velocity (using pitch)***
- + Can change Song Actual Time in the UI***
- + See song data in the UI***
- + Full Customizable***

## **How to start**

Follow the next tutorial to Play the Example Song (thanks to NoCopyrightSounds).

**Download the example song (Lenkus - Cetus) from here:**

Link: <http://nocopyrightsounds.co.uk/video/lensko-cetus-ncs-release/>

Direct Link: <http://files-cdn.nocopyrightsounds.co.uk/Lensko%20-%20Cetus.mp3/>

**Follow the Video Tutorial:**

<https://www.youtube.com/watch?v=YxVUJ3JttSk>

Or you can read it.

**1. Import to Unity (drag and drop to Metronome Pro "Music" folder in Unity).**

**3. Assign the downloaded Song to "Song Clip" variable in MetronomePro\_Player script in Unity.**

*(This script will be located in Hierachy > Canvas > MetronomePro UI > Player)*

**4. Assign the Song Data for this song (you need to set your own values if you set another song):**

**Song Name:** Cetus

**Song Artist:** Lensku

**BPM:** 128

**Offset MS:** 20

**Step:** 4

**Base:** 4

## 5. Press Play!

### Scripts and Functions

#### MetronomePro.cs

You can call any of this functions using

`FindObjectOfType<MetronomePro> ().FunctionName();`

`public void GetSongData (double _bpm, double _offsetMS, int _base, int _step)`

- *You can set BPM, Offset, Base and Step values to the metronome with this function*

`public void UpdateBPM ()`

- *Assigns new BPM to the Metronome (using the value of BPM Input Field)*

`public void UpdateOffset ()`

- *Assigns new Offset to the Metronome (using the value of Offset Input Field)*

`public void CalculateIntervals ()`

- *Calculate all intervals of the song using BPM, Offset, Step and Base values*

`public void CalculateActualStep ()`

- *Calculate Actual Step when the user changes song position in the UI*

`IEnumerator OnTick ()`

- *Here you can set any action that you want*

**public void Play ()**

- *Plays the metronome*

**public void Stop ()**

- *Stops the metronome*

**public void Pause ()**

- *Pauses the metronome*

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**MetronomePro\_Player.cs**

**public void SendSongData ()**

- *Sends Song Data to MetronomePro script*

**public void SetSongName (string SongName, string SongArtist)**

- *Assigns the SongName and Song Artist to the script*

**public void PlayOrPauseSong()**

- *Play or Pauses the song and metronome*

***public void StopSong()***

- *Stops the song and metronome and reset all values.*

***public void NextSong () (You need to configure this)***

- *Stops the actual song, and load the next song data*

***public void PreviousSong () (You need to configure this)***

- ***Stops the actual song, and load the previous song data***

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## **FAQ:**

### **1. What is BPM?**

Beats per minute (BPM) is a unit typically used as a measure of tempo in music and heart rate.

### **2. What is Offset?**

Offset is a unit in MS (Milliseconds) to sync correctly the beats. (Example: The next Tick Time is at 20 sec, if you set Offset to 100 MS all Tick Times will play 100 MS later, The new next Tick Time is at 20.1 sec).

### **3. What is the correct BPM for my Song?**

Please search that BPM in dedicated pages for that:

<https://songbpm.com/> or <https://www.bpmdatabase.com/>

### **4. My Song is not listed, what should i do?**

Tap the BPM using this page: <http://www.bpm-counter.com/>

### **5. What is the correct Off-set for my song?**

Increase the **offset (+10)** to match the metronome with the rhythm of the song. ***If not result, increase again off-set +10. Note: The BPM must be specified correctly; else, the offset will never match with the rhythm.***

## **My Other Projects:**

### **Rhythm Visualizator:**

<https://www.youtube.com/watch?v=i5uRU45fi8U>

**Rhythmic Objects:**

<https://www.youtube.com/watch?v=8mBZPROvR-o>