

La caja de música de arena

Music Box of the Fibonacci Kekak

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Fibonacci Kekak was published in 1995. (Commonly known as "TTKTK")



Abstract
Real Keak System
<http://starcage.org/papers/realkeaksystem.pdf>



Audio Source
A Consort of the Fibonacci Kekak
<http://starcage.org/music/ttktk.mp3>

Although computerized and live performances were realized, its expression as a music box had been pending for 27 years. The music box has now finally been completed.

The configuration of the number of gear teeth is as follows;
"T" is rests and "K" is notes.

5 TTKTK
8 TTKTKTK
13 TTKTKTK TTKTK
21 TTKTKTK TTKTKTK TTKTK
34 TTKTKTK TTKTKTK TTKTK TTKTKTK TTKTK
55 TTKTKTK TTKTKTK TTKTK TTKTKTK TTKTKTK TTKTK TTKTKTK TTKTK
and so on....

This music box is structurally incapable of rotating backwards.
In other words, we have no choice but to move forward into the future.

The LCM of 5,8,13,21,34,55 is 2,042,040.
For a 6 gears, the period of music played by this music box is 2,042,040 beats.

Assuming that one second is spent per crank revolution (0.2 seconds per beat), the period is 4 days + 17 hours.
This means that to hear the passage you just heard again, you would have to keep turning the crank for nearly five days without sleep or rest.

Jorge Luis Borges' short story "El libro de arena (The Book of Sand)" (1954) contains the following passage.
An antiquarian book seller puts it this way.
"Sir, the page you just watched, you'll never see it again".
This is a Cantor-like novel about the uncountable infinity of real numbers.

The idea for this music box was conceived in 1995 and the name had been decided on as "La caja de música de arena (The Music Box of Sand)".
So I would like to say this.
"Sir, this phrase you have just heard, you will never hear it again".

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Akio Hizume

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The Fibonacci Kekak concept of 1995 was originally intended to be a music box, but since there was no laser cutter nearby, it was developed as an interactive application software. The percussion ensemble "TTKTK" was also very popular, but it was also an alternative to the music box. It was a deeply moving experience to realize an idea that had been 27 years in the making in just one week.



"The Music Box of Sand" Video Source
https://youtu.be/Oiz_wB5Ei3E

