MUSEUM TINGUELY
A CULTURAL COMMITMENT OF ROCHE

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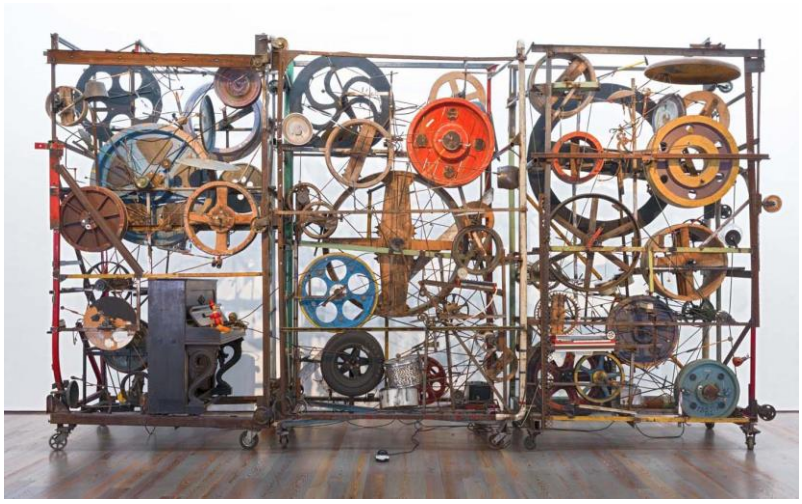
DIY | IDEAS FOR A SOUND-MIXING MACHINE À LA JEAN TINGUELY

Build your own Tinguely-inspired music machine – for DIY enthusiasts young and old!
Our Suggestion Sheet may inspire you to get stuck into a new craft project for you and your kids. In true Tinguely fashion, it does not provide step-by-step instructions for building a machine, but rather lots of suggestions, tips and links.

Inspiration
Jean Tinguely's *Méta-Harmonies* are often called 'music machines'. For Tinguely himself they were 'sound-mixing machines', that is to say, deliberately composed works with a powerful acoustic dimension. He built four of these awesomely monumental works between 1978 and 1985. *Méta-Harmonie II* is housed at Museum Tinguely.
On our website you can find more images >> PDF "Images: Music Machines by Jean Tinguely" and more >> information on the exhibition *Music Machines / Machine Music.*



Méta-Harmonie II, 1979
380 x 690 x 160 cm
(photo: Daniel Spehr)

The axles, rods and wheels are mounted on three frames, which Tinguely fitted with wheels on two sides so that they could be tilted. He then added musical instruments such as a piano, keyboard, bells, gong, cymbals, snare drums, xylophone, triangle and bongos, as well as numerous everyday objects-cum-percussion instruments such as a salad bowl, hammer, frying pan and even a little anchor. Motors, countless gearwheels and belts transmit the movements to the installed objects.

Which craft materials should I use?
What do you have to hand? Have you checked your recycling bins? Found any bottles, plastic bottles, tin cans, crown corks, cardboard boxes or packaging materials? Maybe you have some skewers somewhere or a sewing box with elastic cord, bobbins or safety pins? Maybe there's something with potential in the tool shed or in the cellar?
Wheels come in very handy when building machines. They can be bought, but also self made.

Where can I order additional craft materials?
DIY stores close to you and online suppliers are good addresses. You'll find a wide choice of things here >> craft materials and here >> electronic material. Running a search for school supplies may also prove useful.
The necessary tools – pliers, scissors, awl, drill, glue, sticky tape, saw etc. – you probably already have at home or can order online.

How is the sound produced?

Do the found objects make any sound at all, and if so, why? Do you have to strike it, blow into it, shake it, pluck it, turn it or scrape it?
Can a machine do that? Or how might these movements be imitated mechanically? Here are some suggestions:

Striking: The beater goes up and down like a >> seesaw and produces a sound every time it hits base. Press one end down and the opposite end goes up. What kind of >> beater does the machine need? Should it have a padded head or should it remain hard? The best way to find out is to try both! Or how about setting a ball rolling that touches other objects that make a noise?

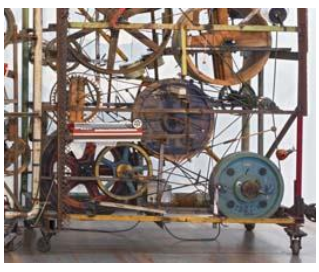
Scraping: Something scrapes back and forth – perhaps over sandpaper or bubble wrap? Or a file scraping against a piece of wood? This back and forth motion recalls the coupling rod of old >> steam engines. To produce a sound, however, you still need at least one wheel turning on its own axis. Attach your scraper to this, but as far away as possible from the middle. And don't screw it on tight. Just let it hang down loosely.

Wind instruments need air: Blowing air through a drinking straw into a glass of water produces a bubbling sound – and if it's a soap solution is a good way of blowing bubbles.

What about the drive?

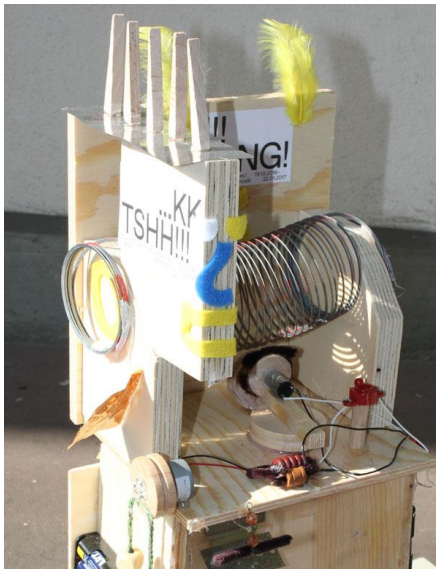
Seasoned DIY enthusiasts can hook their machine up to a >> motor. But a hand crank made of pipe-cleaners, wood or wire also works well.

And the transmission?
For several wheels to be able to turn together, they have to be connected in some way, just as they are on a >> bicycle. >> Pulleys are ideal for this purpose. They have a groove around the circumference for a >> rubber band or elastic. It goes without saying that home-made >> wheels are likely to be a real eye-catcher.



Frame or chassis?
Your machine will need a frame or chassis. The lid of a cardboard box makes an ideal chassis. Glue a >> wooden block into each corner and you can go on building as you like. Inserting struts between the blocks will improve the overall stability. Next glue your wheels onto the wooden skewers and decide where you want to position them and the resonant objects they belong to. Be sure to do a function test before gluing anything! Tinguely always proceeded step by step and was constantly experimenting and changing his mind.

Examples of self-made music machines



The music machine *COOL* (left) was built at the Museum Tinguely Kinderclub in 2017. Its inventor was a born tinkerer, so naturally it has a motor. But that's not a must. A hand crank is perfectly sufficient – and looks great too.
The *Musikmonster* (right) is another creation of Kinderclub from 2017. The monster's head is adorned with spikey hair and yellow feathers. And its slinky spring teases out some really great sounds.

Another inspiring link:
TV documentary aimed at school kids: >> SRF mySchool: Jean Tinguely

Your music machine!
We look forward to seeing your creation! Send us a recording of it or post it on Instagram:

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