Who Listens to the Radio?

As audio streaming platforms and electronic devices advance, traditional radio usage has declined. The evolving radio landscape **faces obstacles in retaining listeners** from the proliferation of multimedia content and other radio-capable smart devices.

Nevertheless, this project is tailored for dedicated **radio enthusiasts** who actively seek out specific programs or panels, demonstrating a strong propensity to engage with radio content in static settings.

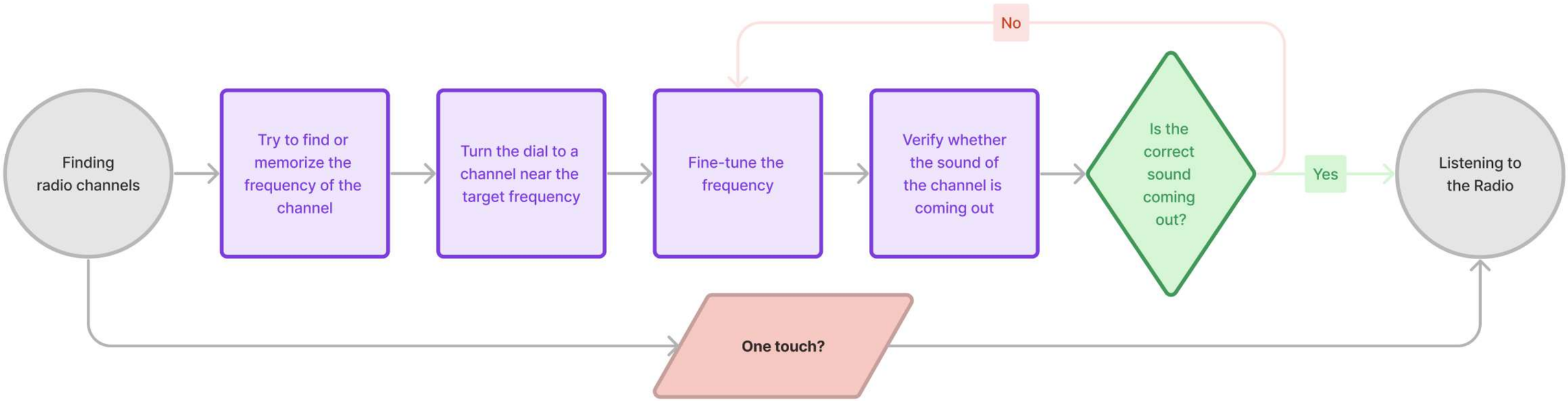
How Do They Find **Channels?**

This project focuses on the **stage of channel selection** in their radio listening experience.
Traditional analog radio designs typically utilize dials or sliders to tune frequencies.
To listen to radio programs, users must **remember the frequencies** of all program channels and engage in **fine adjustments**,
resulting in monotonous and tedious interactions.

This process imposes **unnecessary cognitive load** on users and
becomes a primary reason for the migration to alternative electronic devices for radio listening.

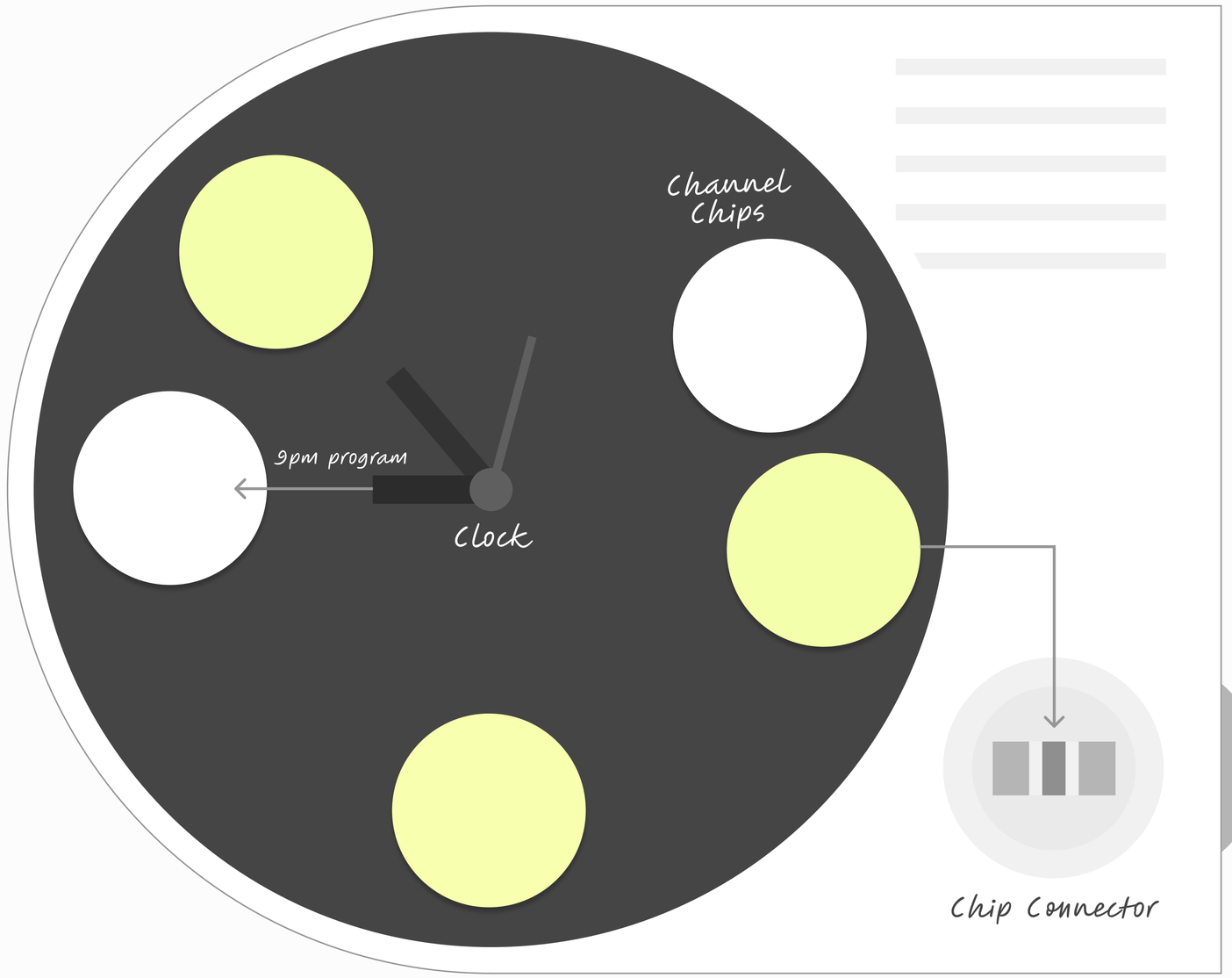
How might we locate the radio channel with **just one intriguing touch**?

The information of radio programs consists of two elements: **time and frequency**. What if the radio could remember these two pieces of information for you? Additionally, imagine if the complex process of listening to radio programs could be condensed into a single interaction.



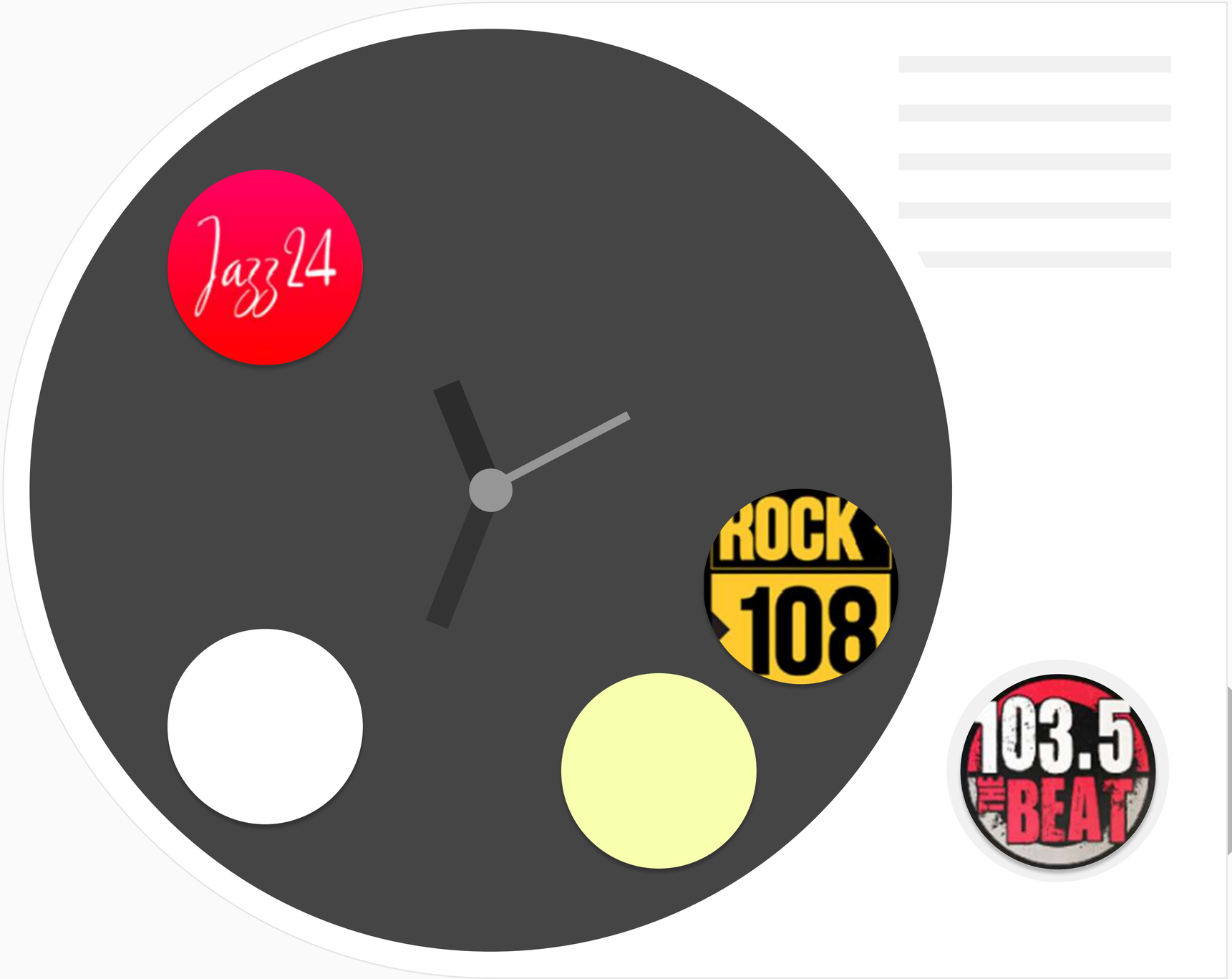
Radione

The main idea of this project is to enable users to listen to a specific radio program with just **one interaction**,
by connecting a channel chip that stores the frequency.

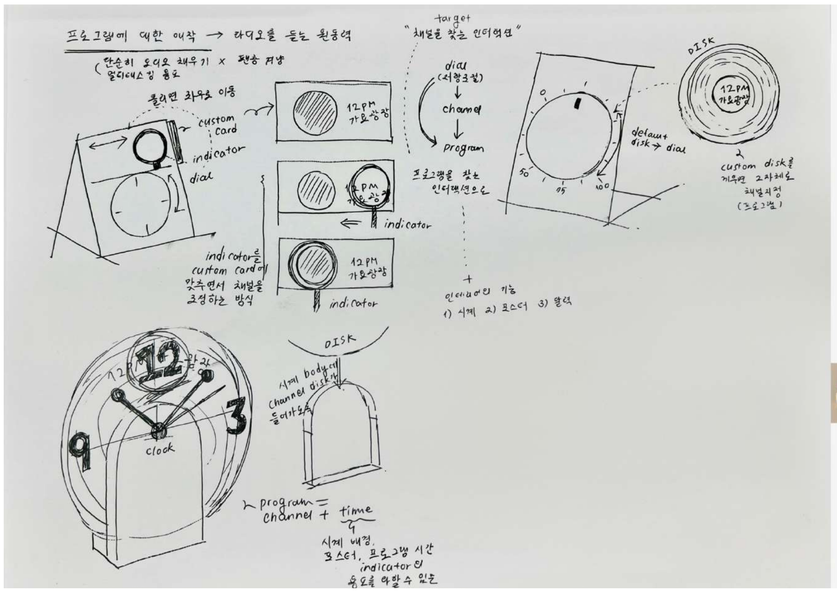


While not listening to the radio,
users can simply place the program chip at the appropriate
time for the broadcast, eliminating the need for memory of the time.

Furthermore, the chip can be customized for each channel.
It can be designed according to individual preferences or the characteristics of the program.

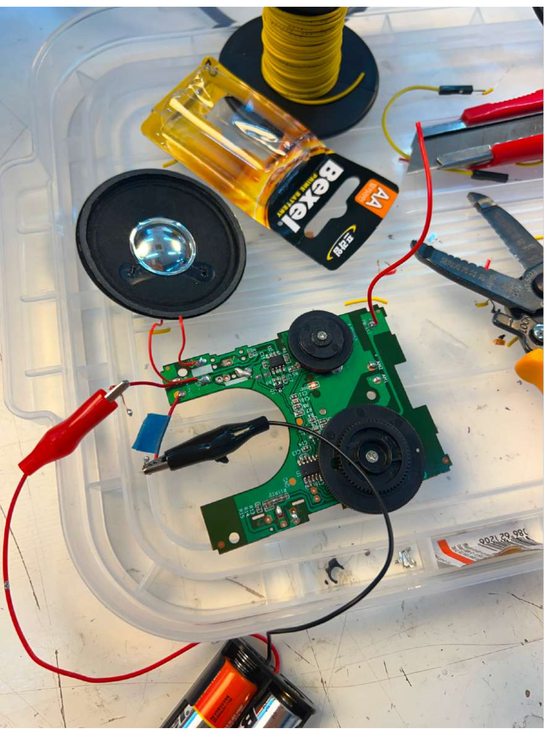


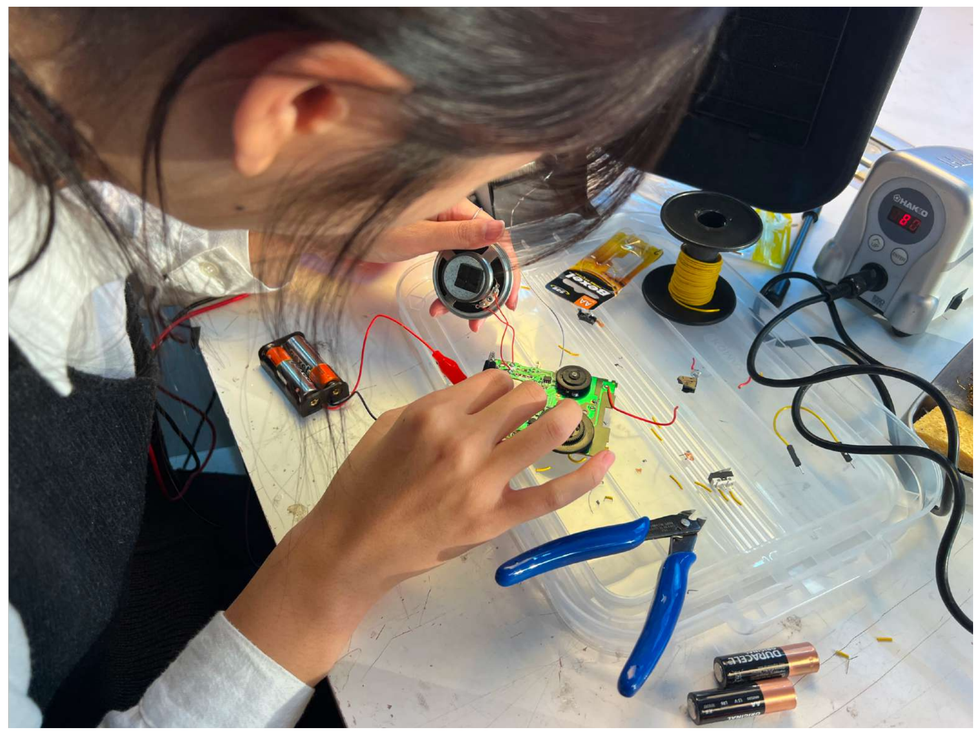
Design Process

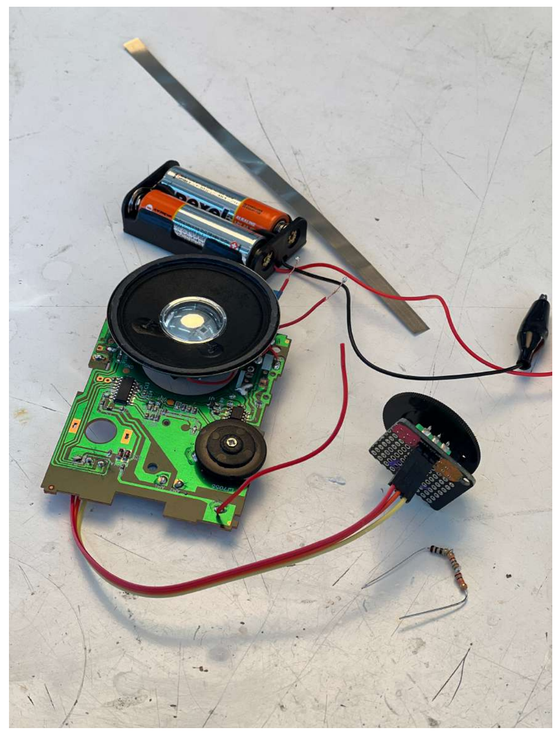


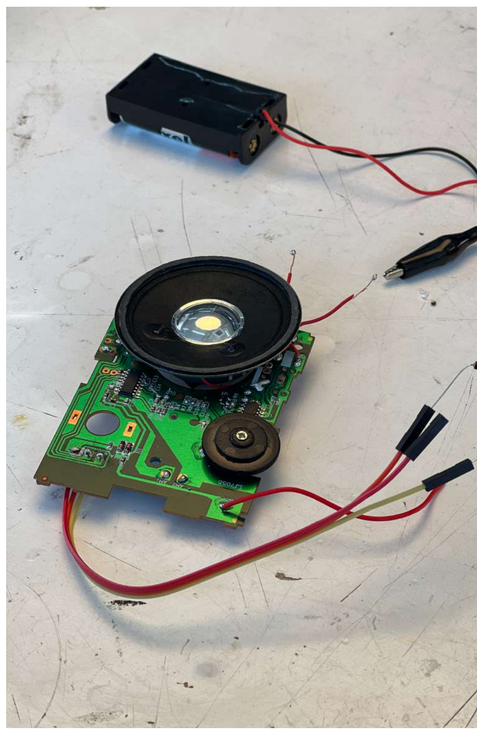
This product was created by modifying a pre-existing radio device.

Unnecessary components were removed, and the circuit was modified.



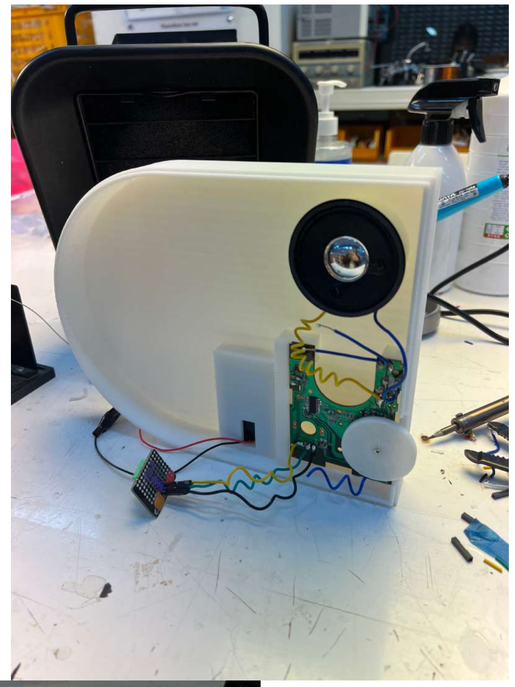


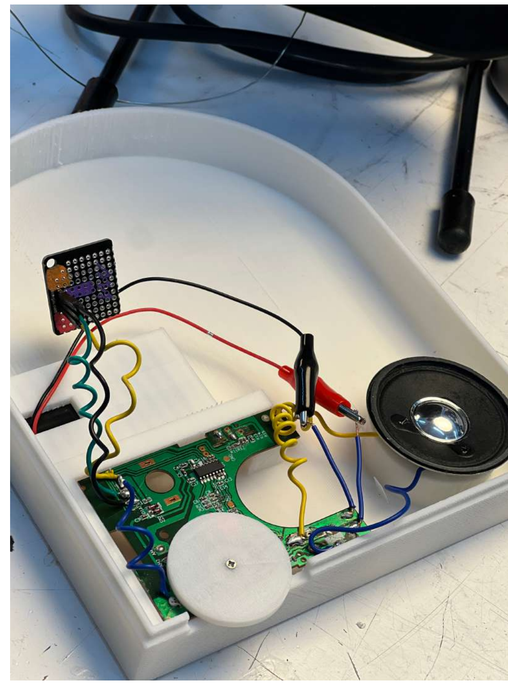


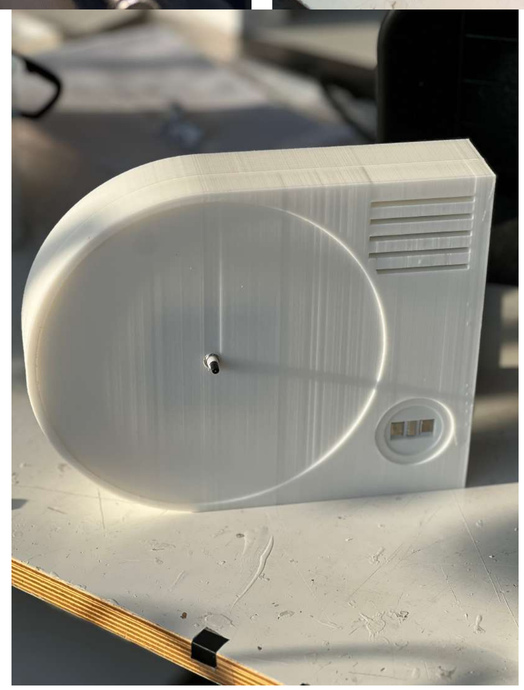


The casing of the product is designed in an assembly form rather than a built-in type and made using 3D printing.

The front of the casing is designed to accommodate clock movements and iron paper that allows the attachment of channel chips.





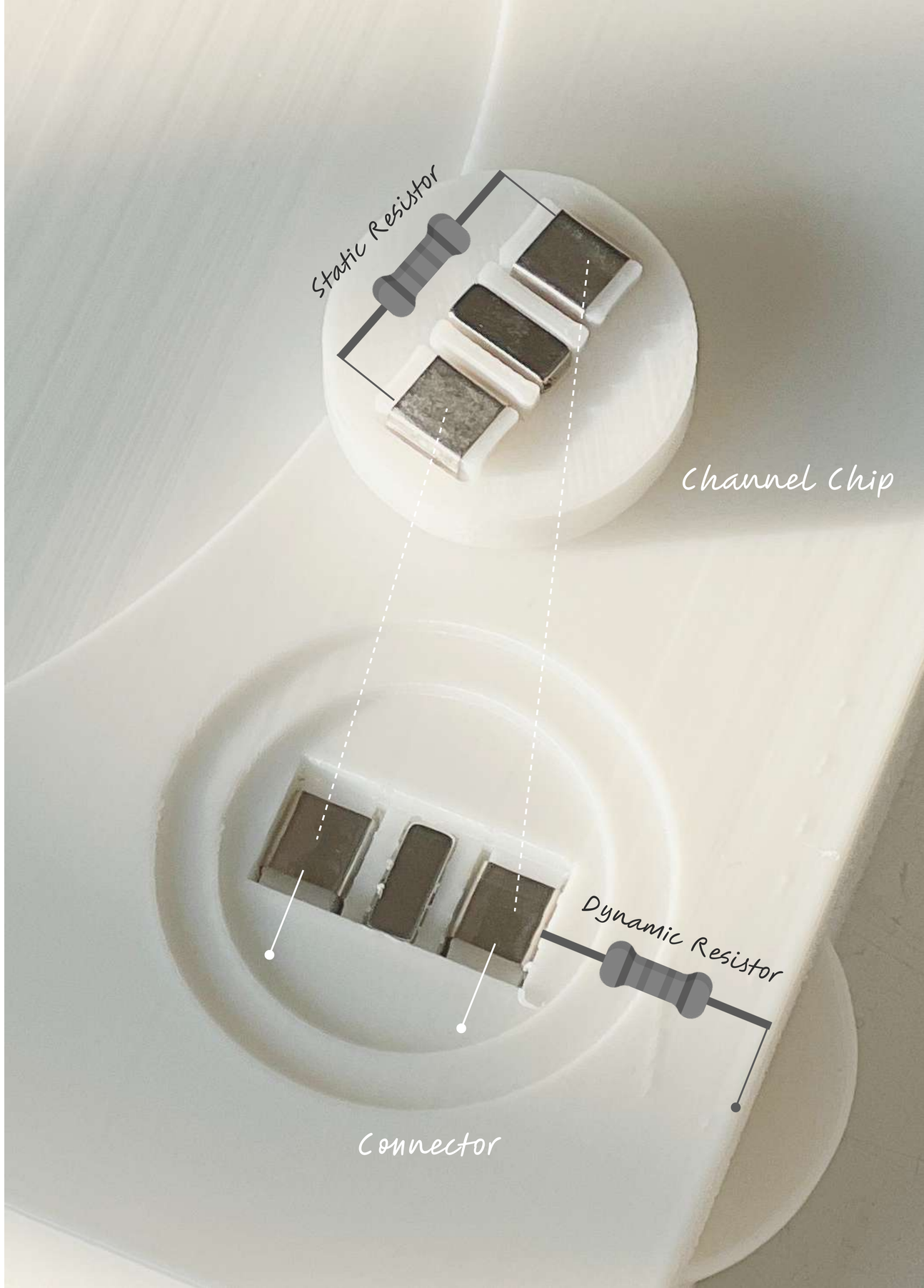


How the **Radio Works?**

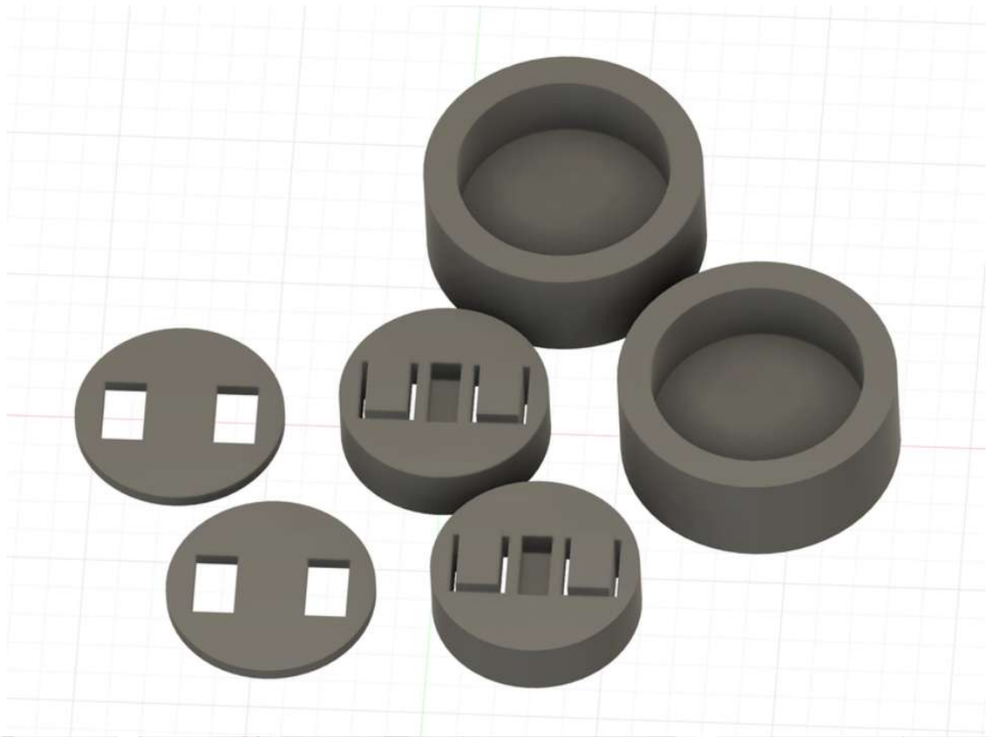
The design strategy of this project is to **reproduce a principle of potentiometer** by changing the value of the static resistor inserted into the channel chip.

The PCB board of the existing radio is designed to adjust the frequency through a potentiometer dial. While maintaining this condition, the resistor values of different channel chips are used to adjust the frequency.

A resistor of 46.1KΩ is inserted into the main body, and the frequency is calculated based on the ratio of the static resistor value inside the channel chip and the resistor inserted into the main body.



Each channel chip is equipped with a unique static resistance attached through an aluminum strip to allow connection to the circuit of the main body. Magnets are embedded to enable one-touch attachment to the clock face of the product and the chip connector.



Final Product

Click here to see a demo
https://youtube.com/shorts/tFIXwzTkcRc