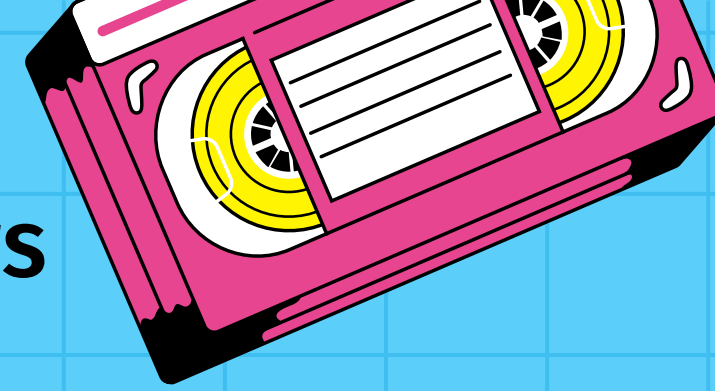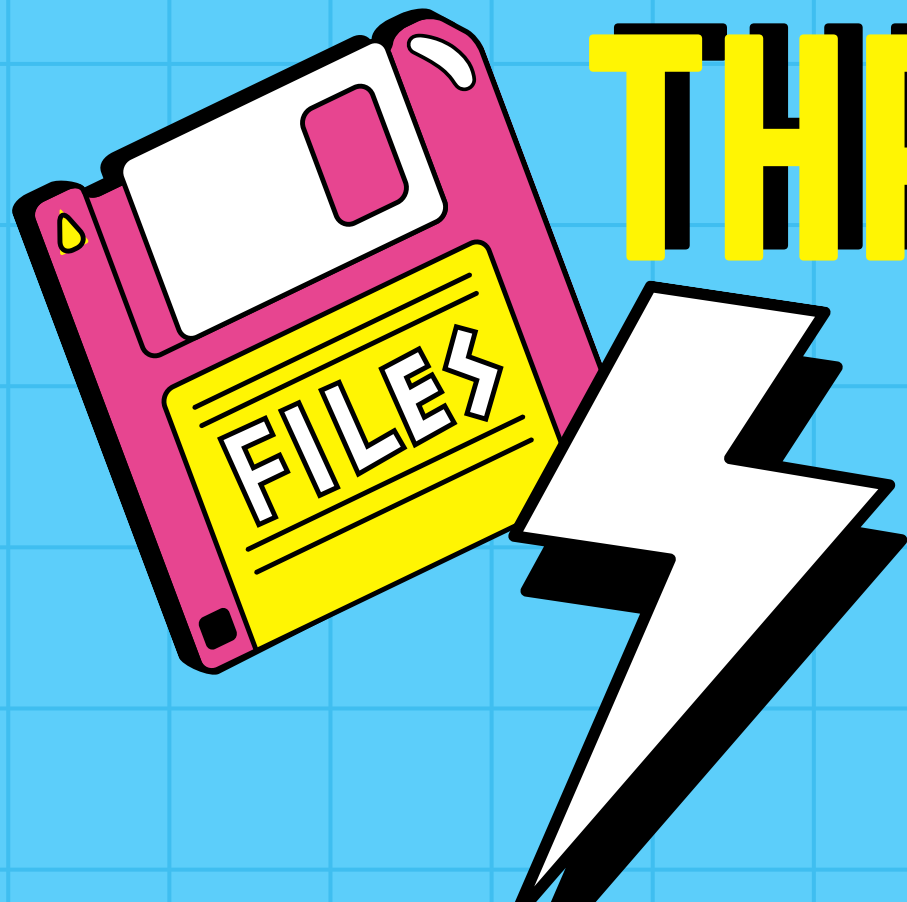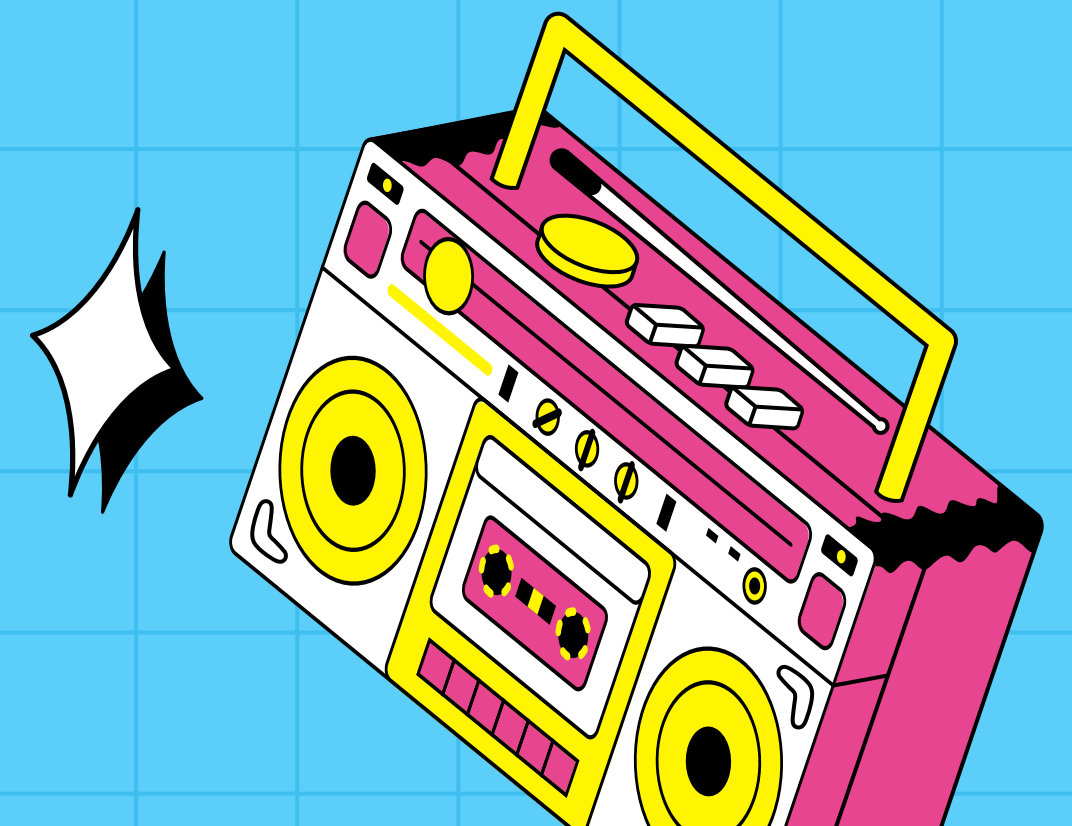IM-UH 2117 PERFORMING ROBOTS

# EIGHT LESSONS LEARNED ABOUT NON-VERBAL INTERACTIONS THROUGH ROBOT THEATER

#MUDI AND YUPU

THEME

Meaning = movement + form + context

- Have a goal: convey intentionality
- There is no mind without body
- Mirror neurons: physicality and motion
- Outward Emotional Communication Trumps Inward Experience
- Social role: the gulf between props and character
- Good actors outweigh bad actors: attribution
- Acknowledgement/learning: looping in audience feedback
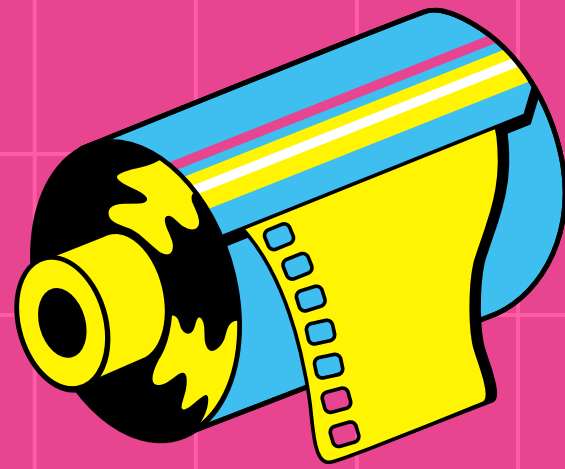- Humor will make people like your robot better

Selecting
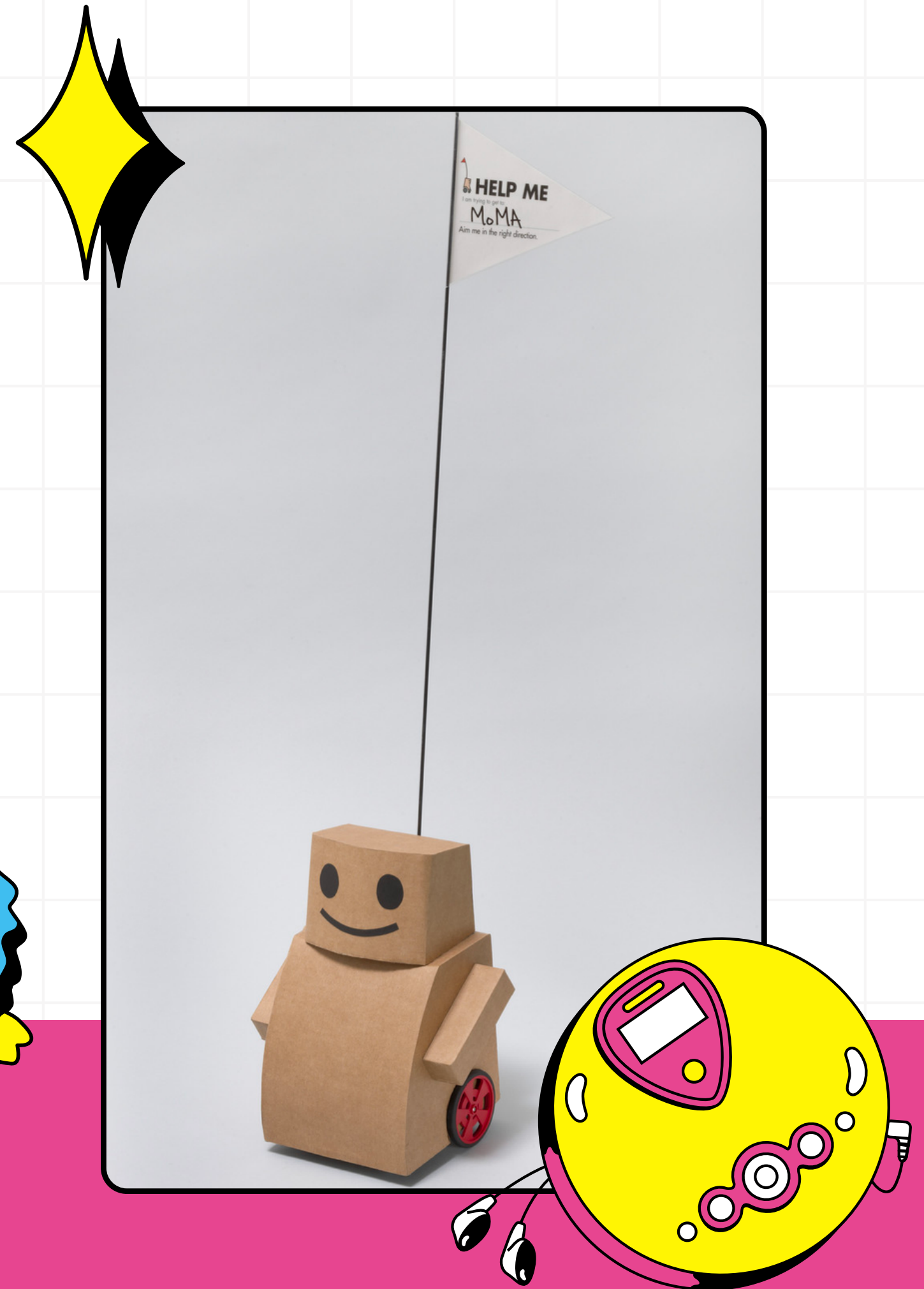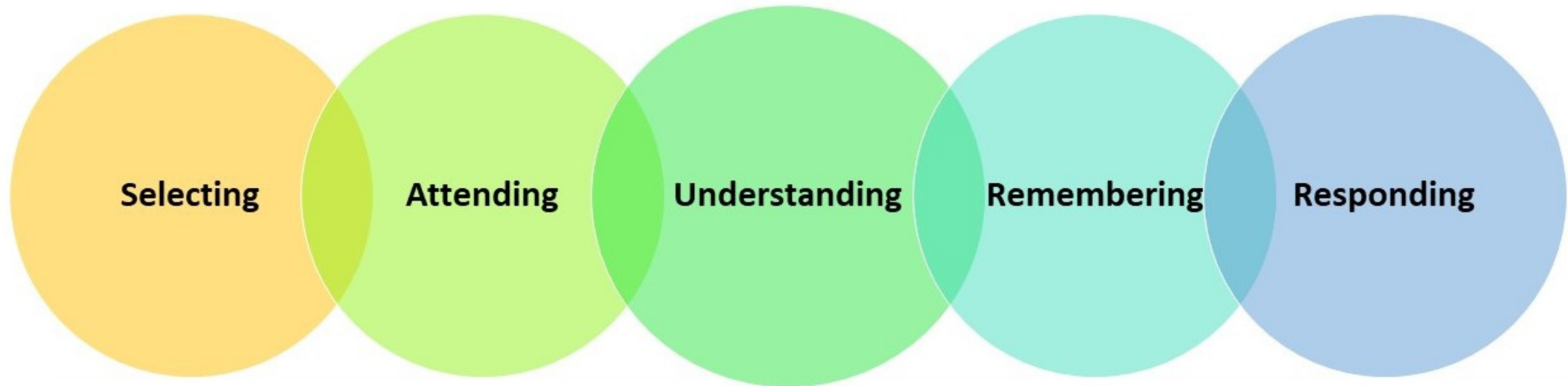
Sorting through various sounds and deciding what sounds to pay attention to.

Attending

To focus on a particular sound or message. We are more likely to attend to messages that are about us. Humour, new ideas, real or concrete things.

Understanding

Assigning meaning to messages. Assigning a familiar pattern based on knowledge, experience, senses, etc

Remembering

Ability to recall information. Tend to remember what is important to us
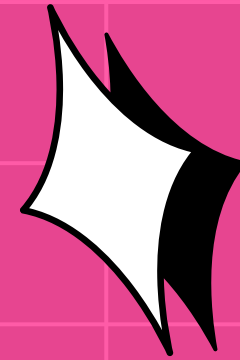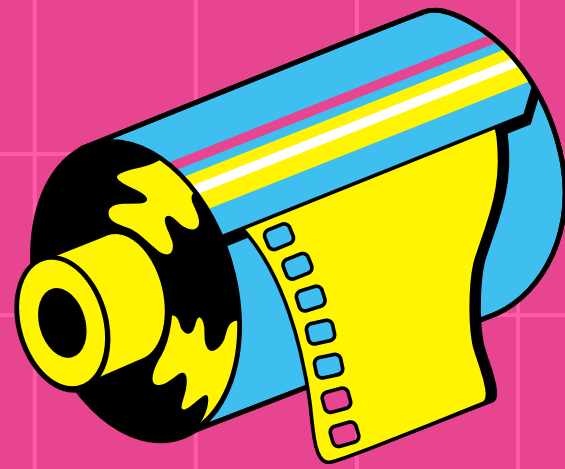
Responding

Verbal and non-verbal process to confirm understanding.
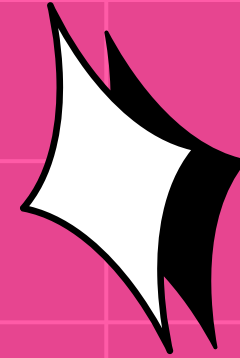
Have a goal: convey intentionality

Do you think if there is a similar movement profile mechanism in human beings that help other human beings to read our intention? Or is it just a simplified process that helps us to detect the robot's intention?
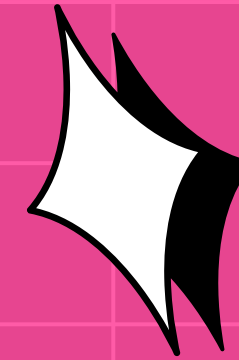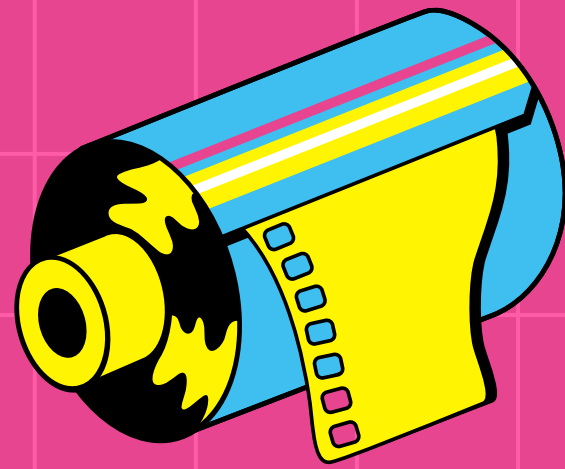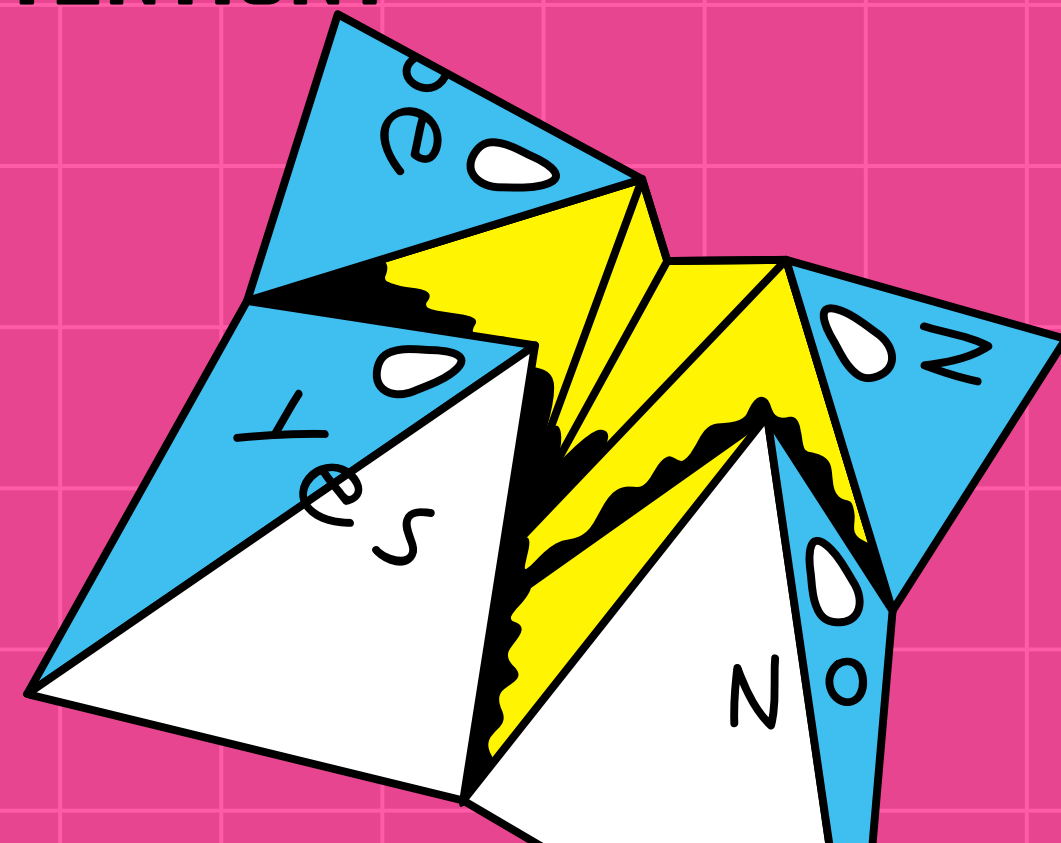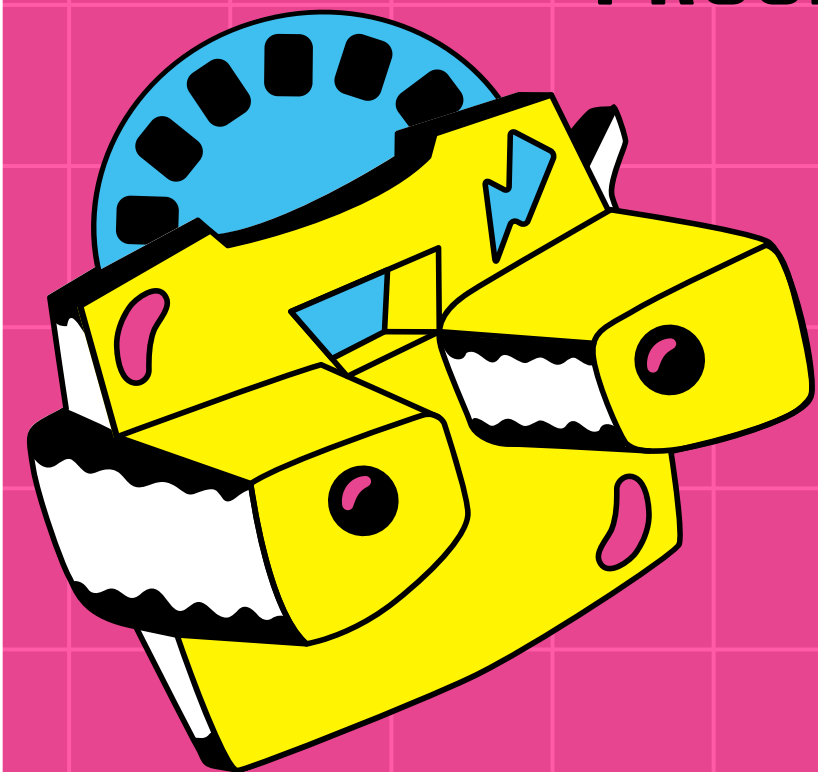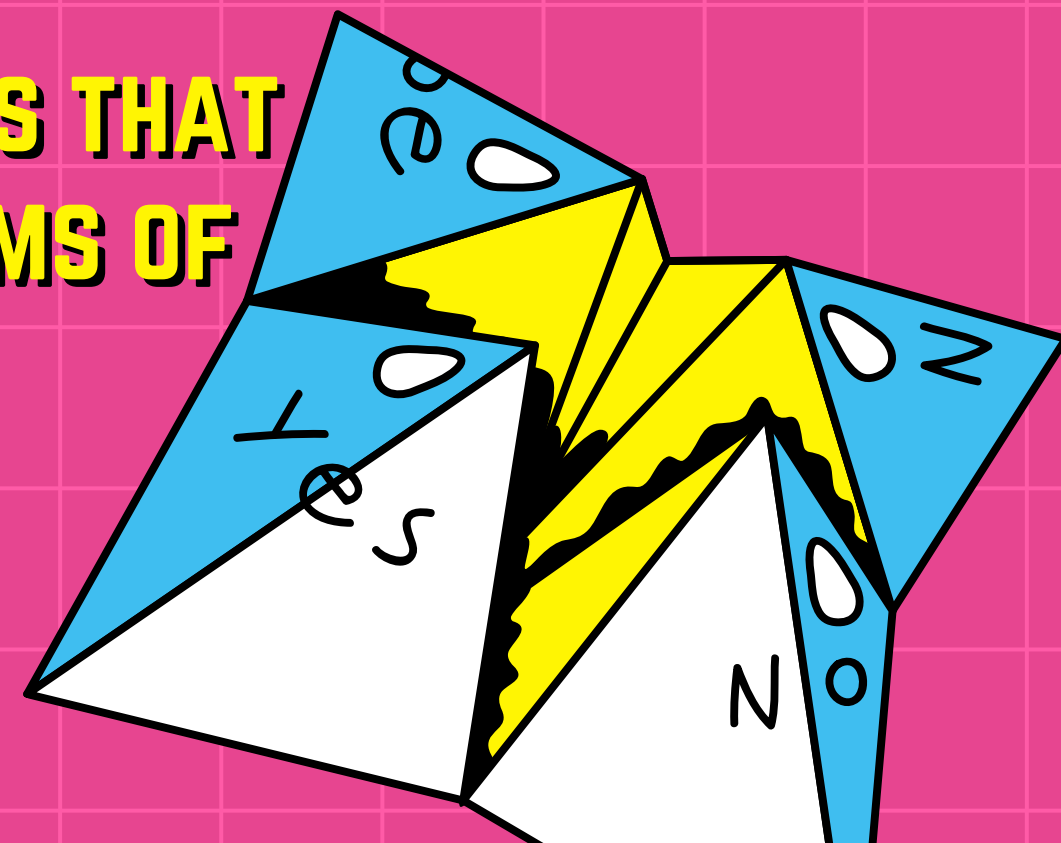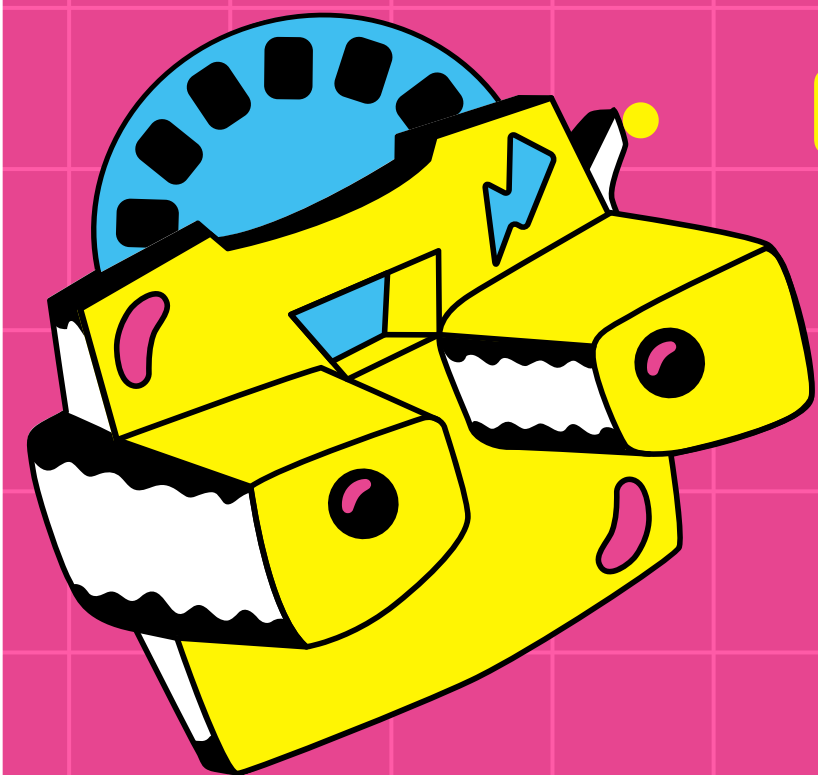
There is no mind without body

**It is said that there's an affect associated with every functioning of the body.**

- **What about disabled human beings? Do they also induce less expressions as a robot not fully leveraging its physicality?**
- **Or there is something else in human beings that compensates for incomplete body in terms of communication and expression?**
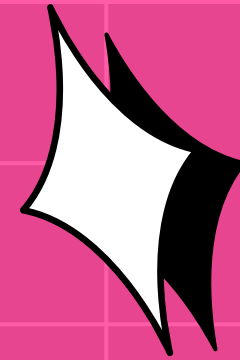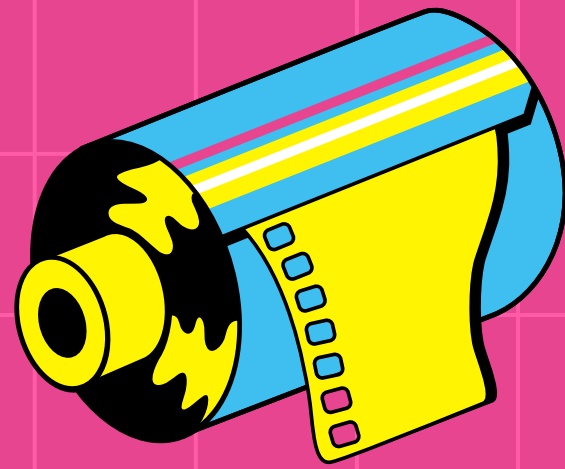
As the physicality is crucial to the expression of emotions, it is also found that people tend to project the motions seen onto ourselves. In other words, to see is to do. How do people simulate actions done by humans and robots differently?
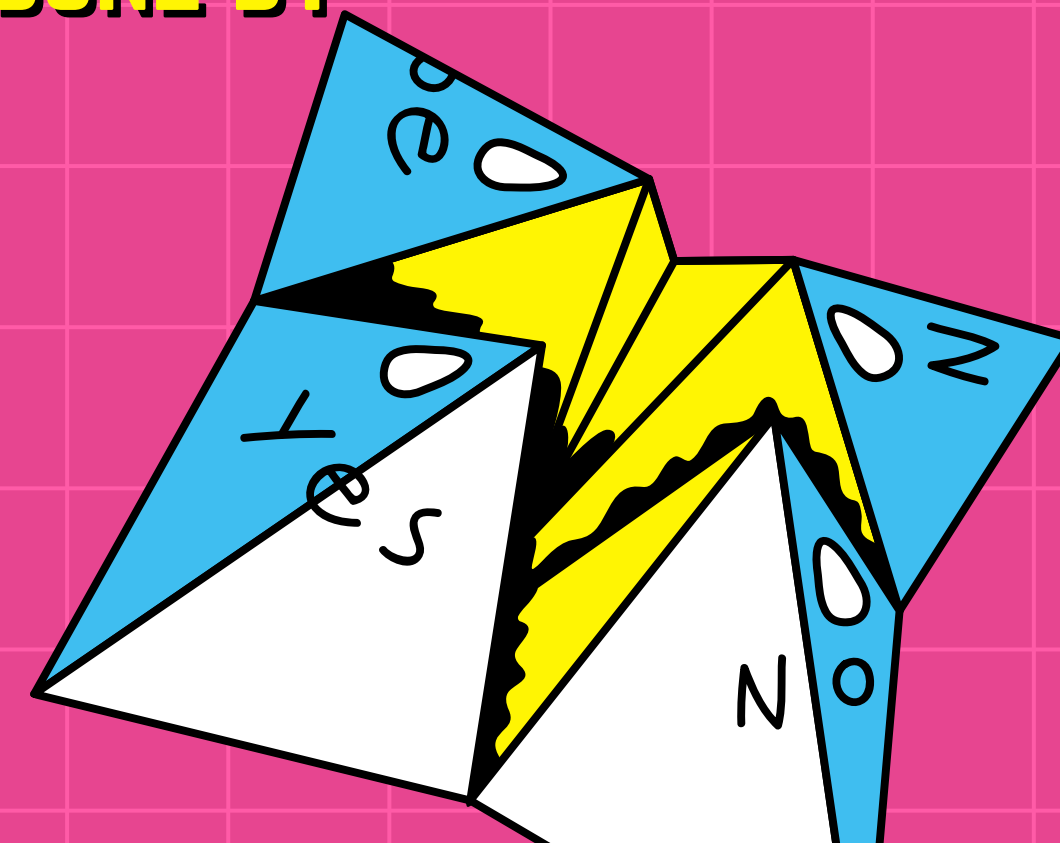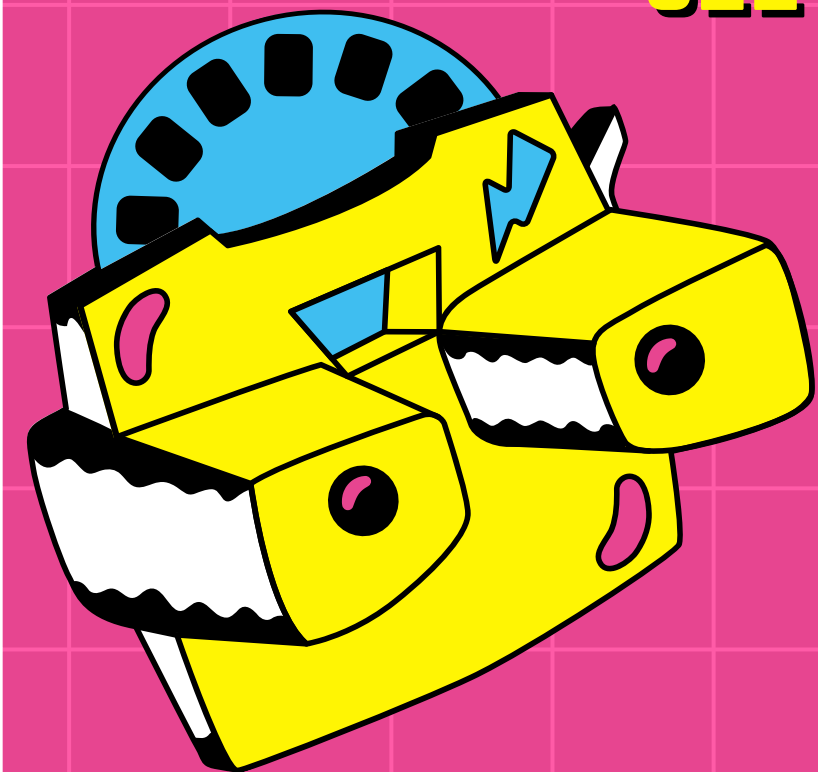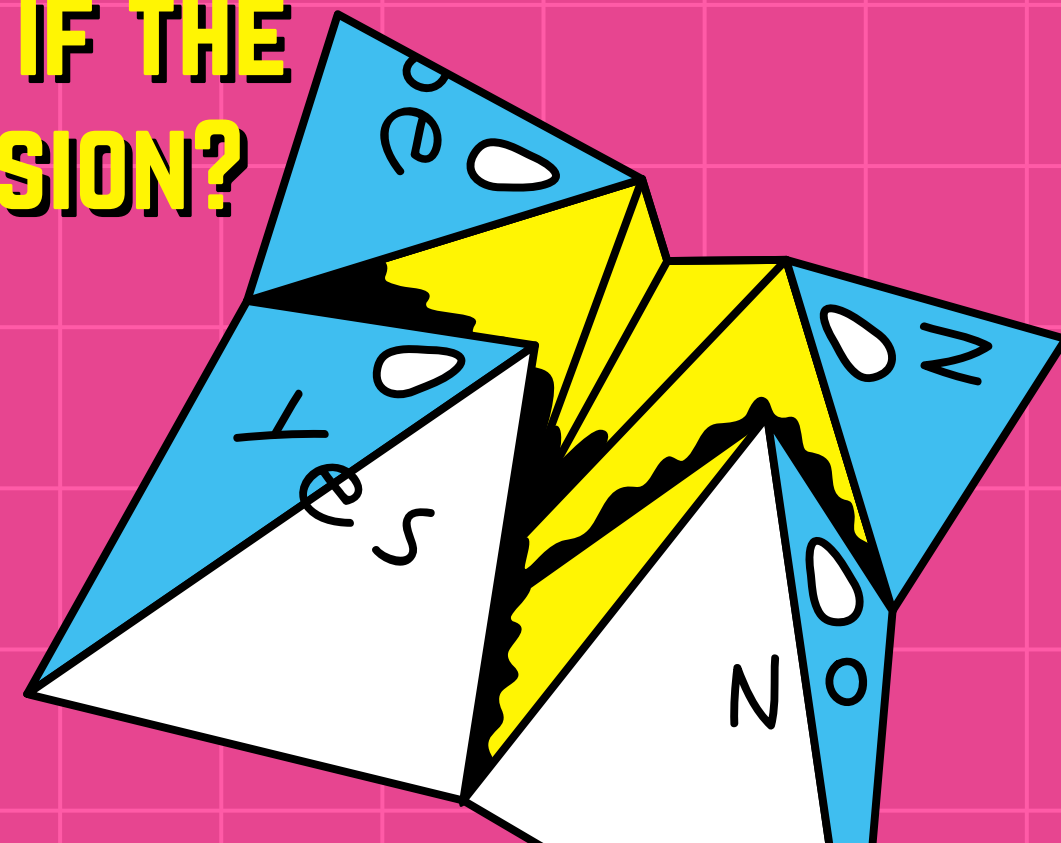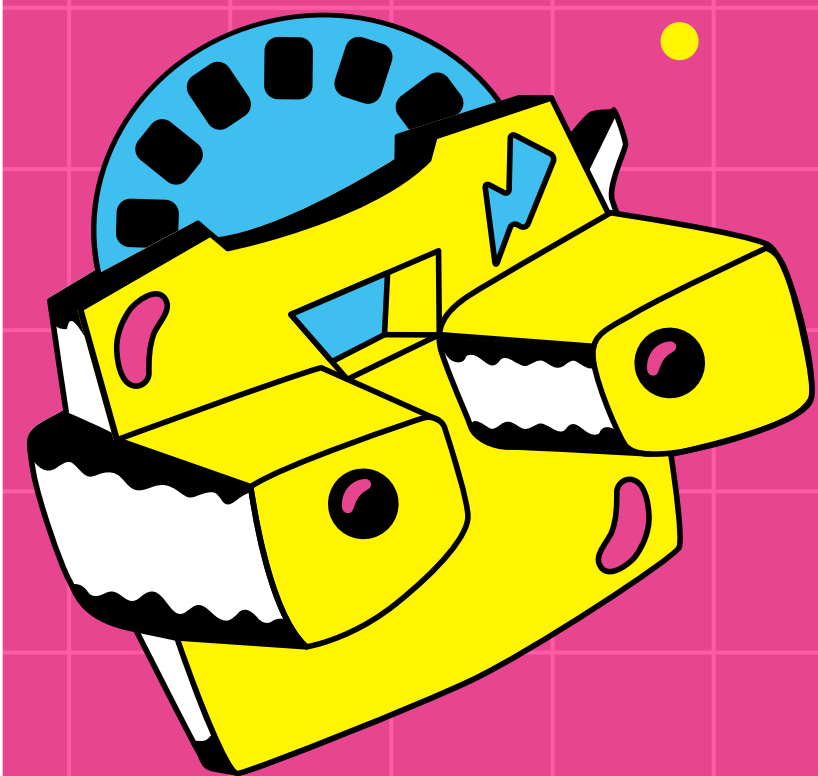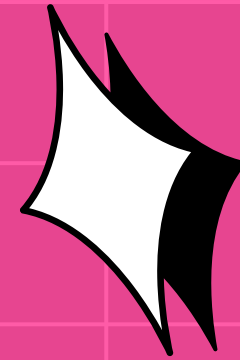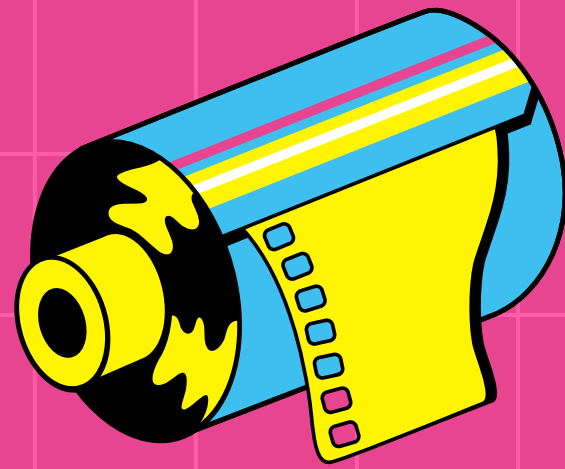
Outward Emotional Communication Trumps Inward Experience

- **With the example of Tweenbot, Do people interact with robots because they feel how robots feel?"**
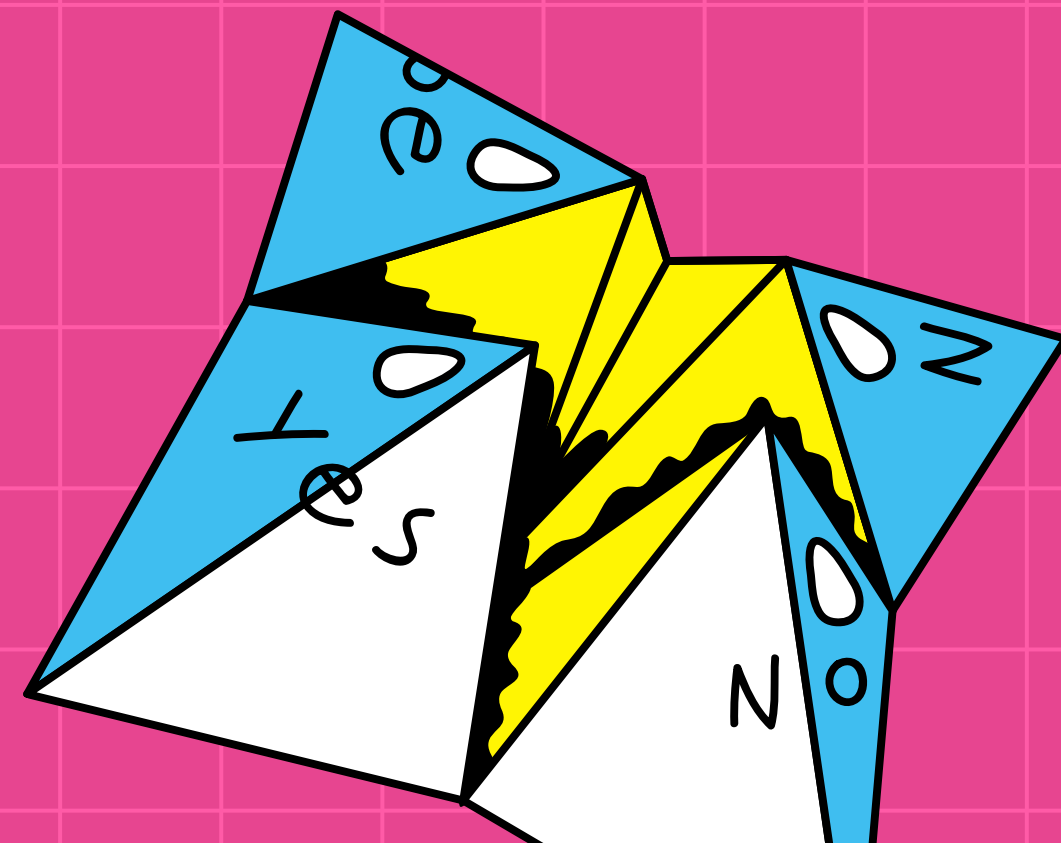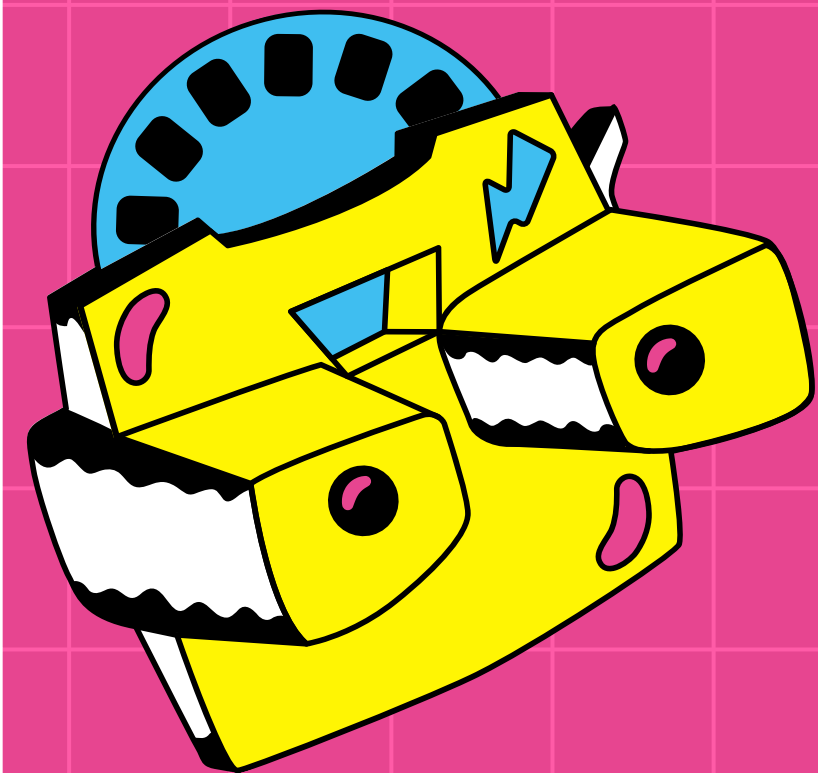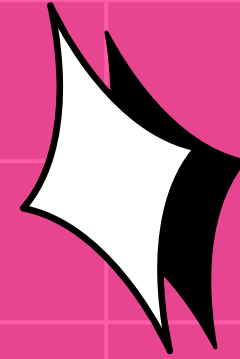- **Why would people feel emotions even if the robot itself has not internal expression?**
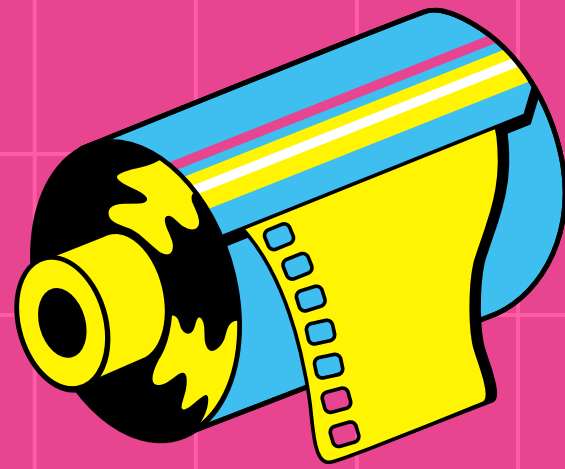
Social role: the gulf between props and character

What is effect if a human is treated as an object while robots completely take the place of agents on stage? Will people be scared, surprised, excited, sad or...?
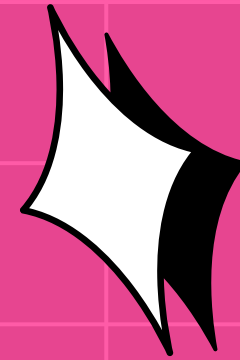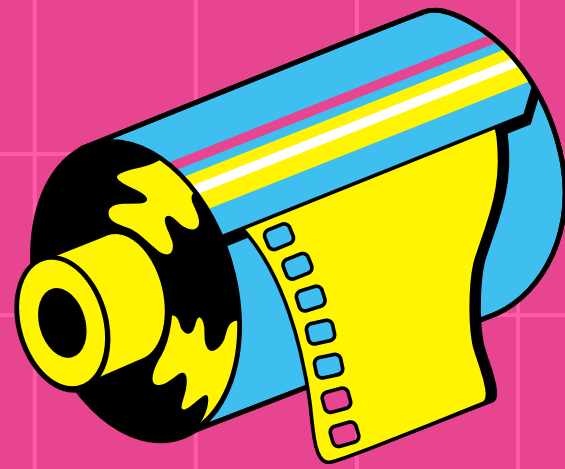
Good actors outweigh bad actors: attribution

IS THERE A DIFFFERENCE BETWEEN HOW AN AUDIENCE FEEL ABOUT HUMAN PERFORMERS VS ROBOT PERFORMERS WHEN WATCHING THEIR ABILITY IN PERFORMING ?
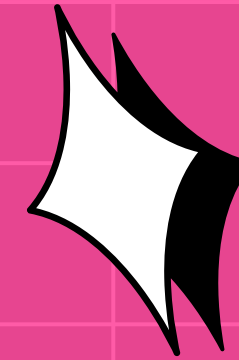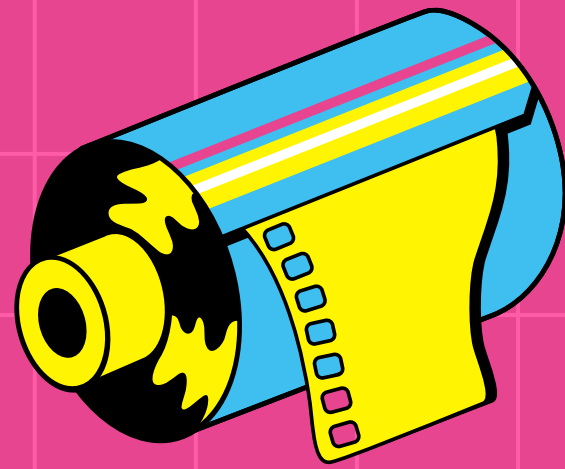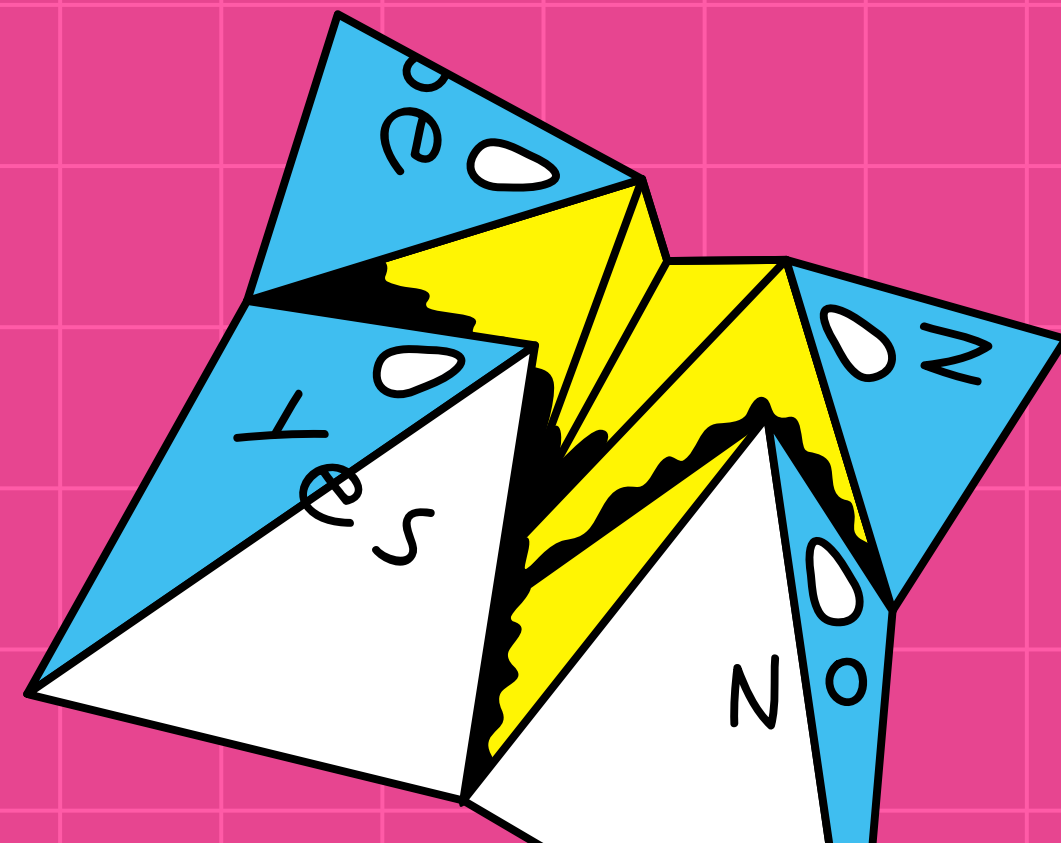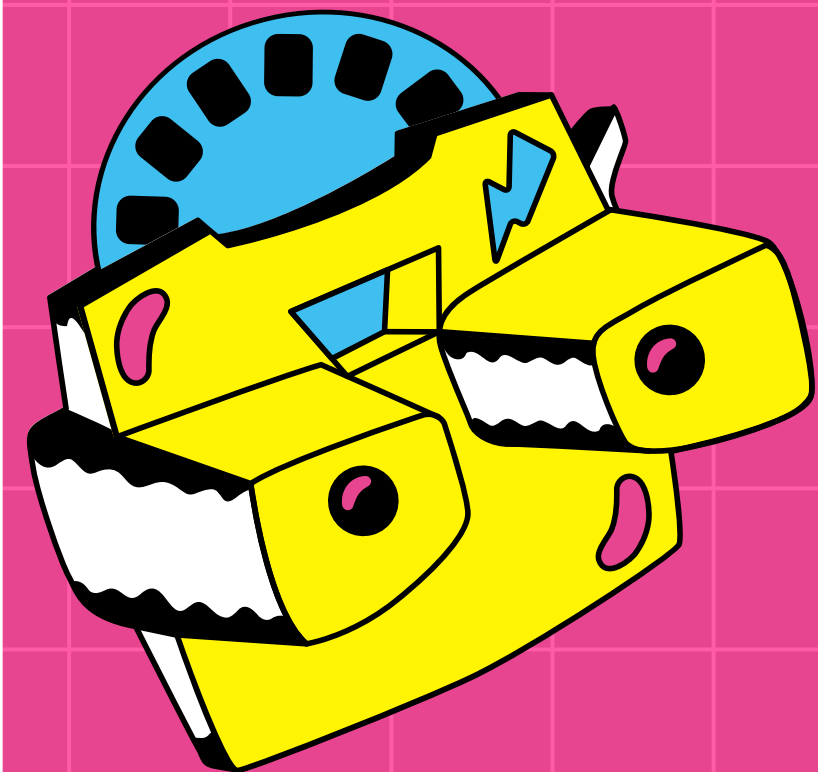
What about human actors? Will human actors react to the audience's feedback faster or slower than robots since the human brain's mechanism is much more complicated than the robots' algorithms? In this sense, is it possible that robots can better improvise than human beings?
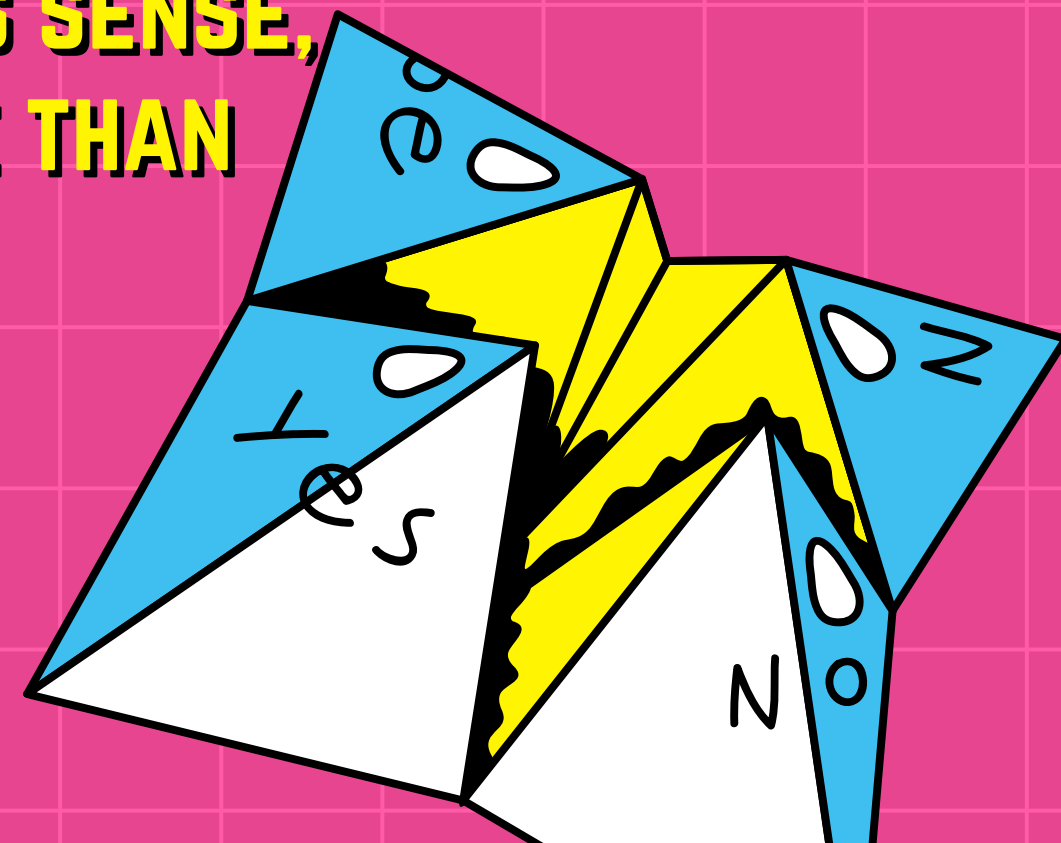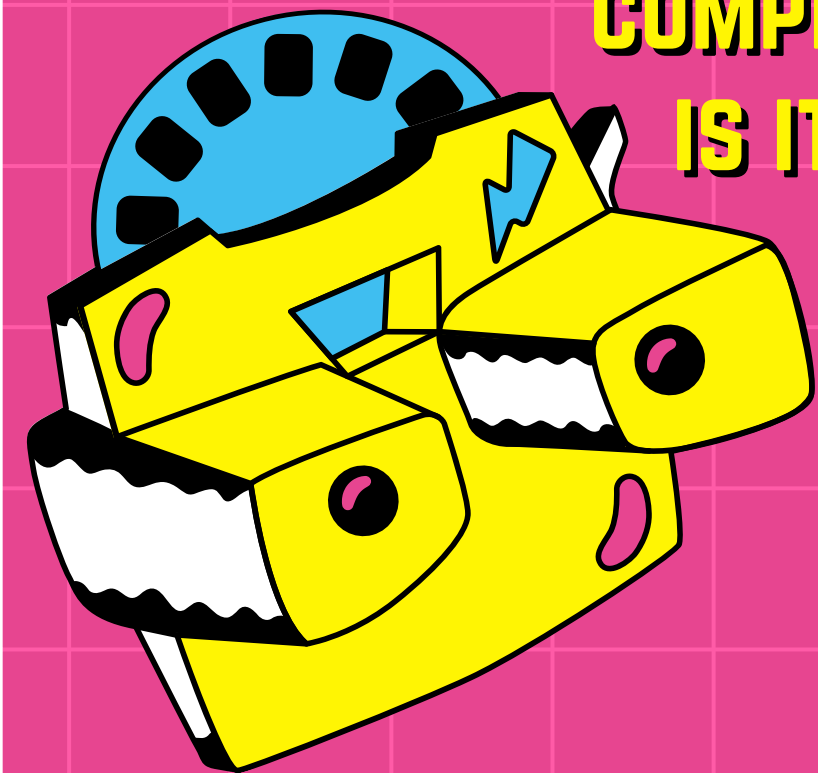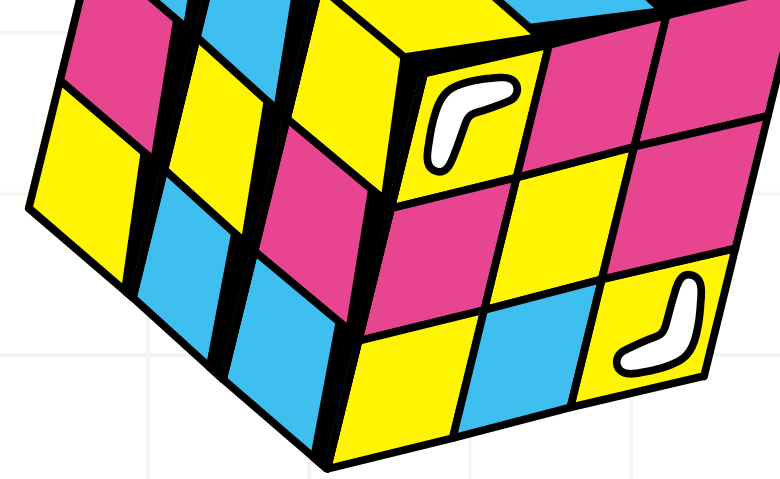
Humor will make people like your robot better

It is said that a sense of humor, such as self-depricating joke, can make people like the robot better. What do you think is the limit here? In other words, how much such sense of humor do you think is appropriate?
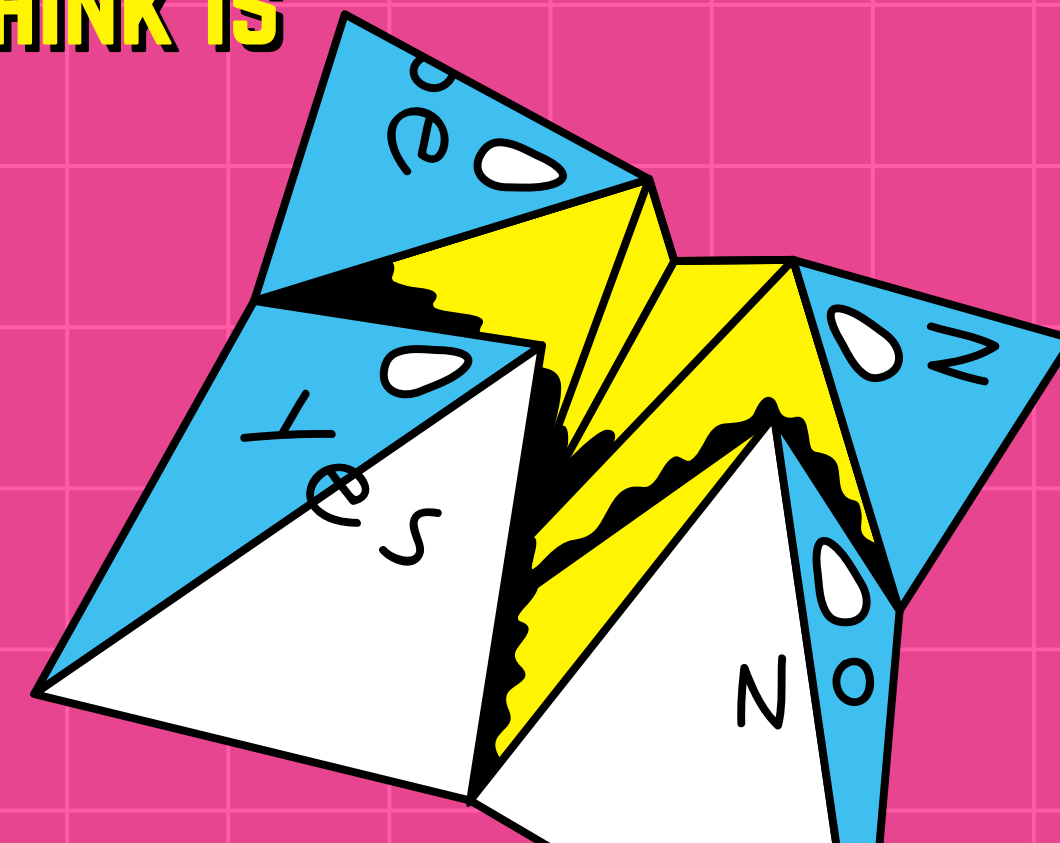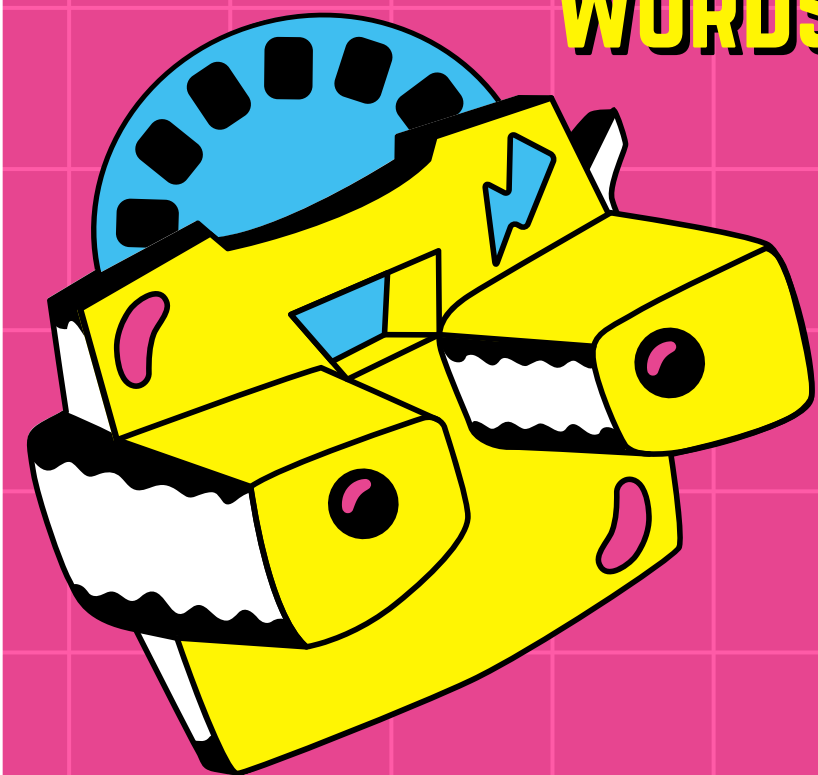
Thank you for listening!

May we all live long enough, or be reincarnated, to see all the cool tech in the future.