

Mental Rescuing Daruma

Care for your mental health and calm you
down in stress and anxiety



Background Problems

Mental problems are becoming more and more common in today's world. They can be very harmful, but the ways to deal with them are very limited. Many people, especially those who don't have severe symptoms, often choose not to start a formal treatment but just endure the pain.

1.0 Million
Die from depression
each year

70%
Had depressive
thoughts at least
once in their lives

1.0 Billion
Are suffering from
mental illnesses



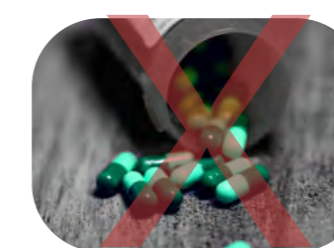
Costly/No Access



Hard Without Help

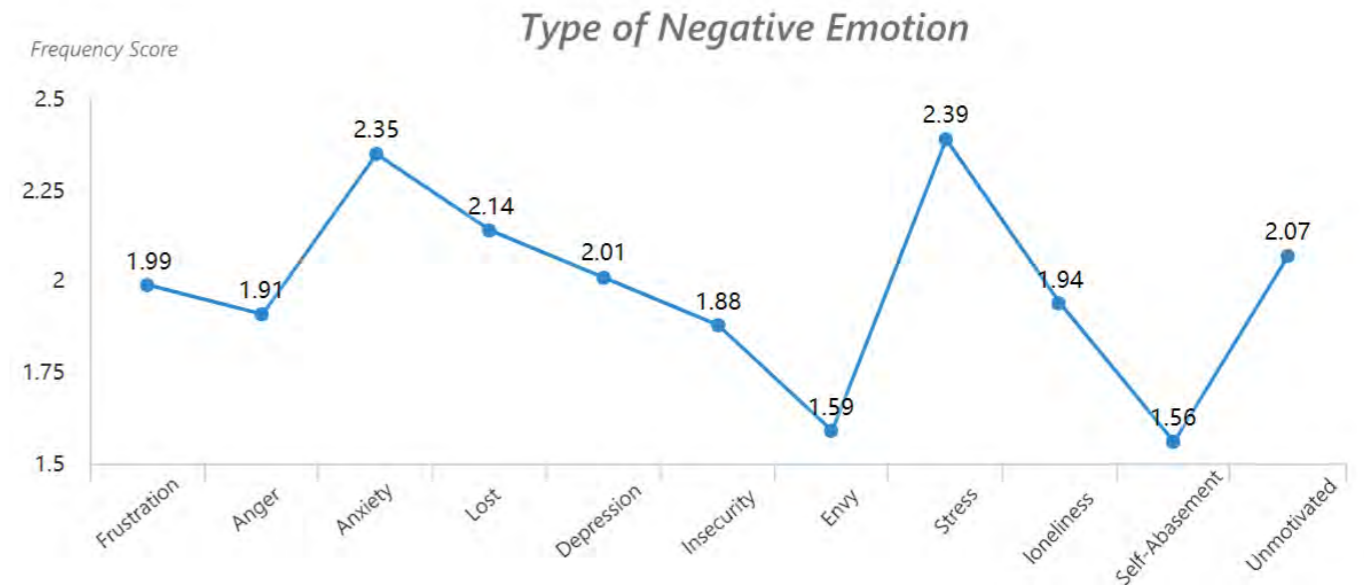
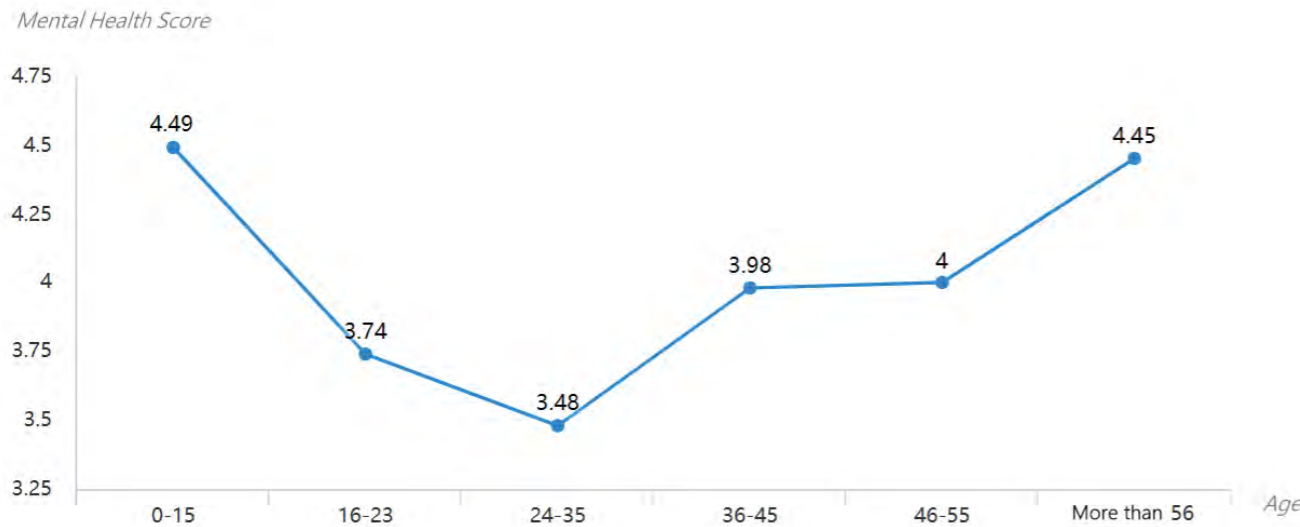


Side Effect

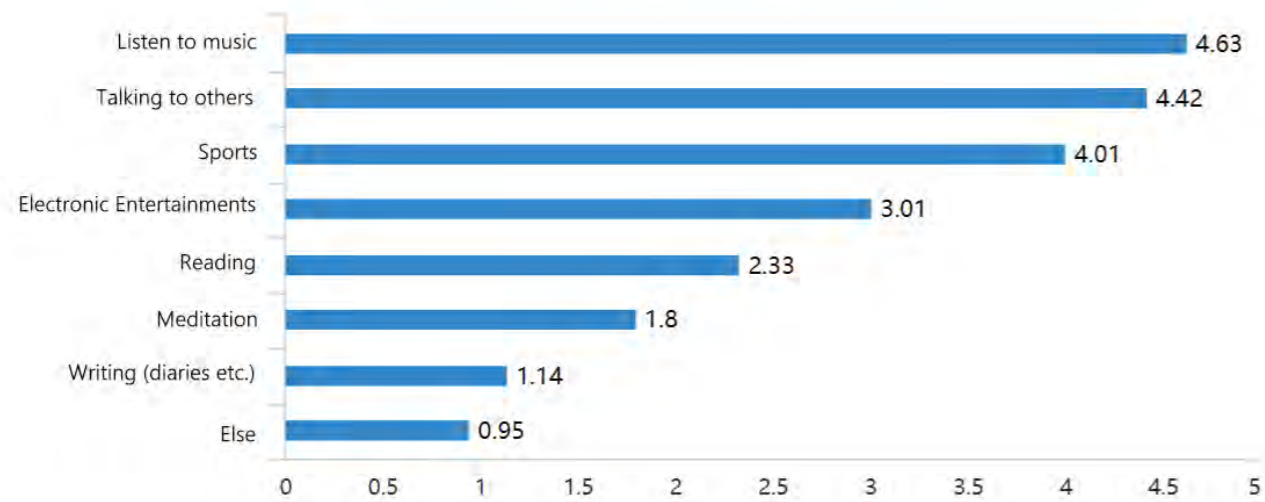


Primary Research

Method: Questionnaire (355 valid, 198 female and 157 male, basically distributed equally by age)



Effectiveness of the Self-Regulation Methods



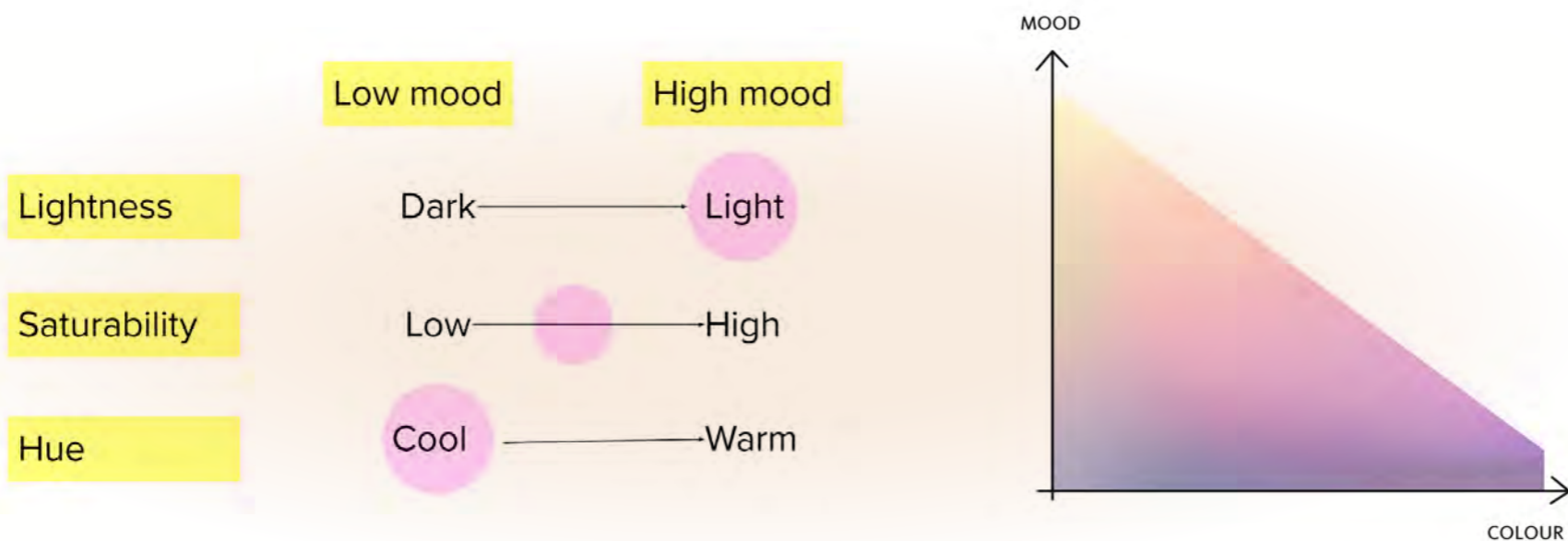
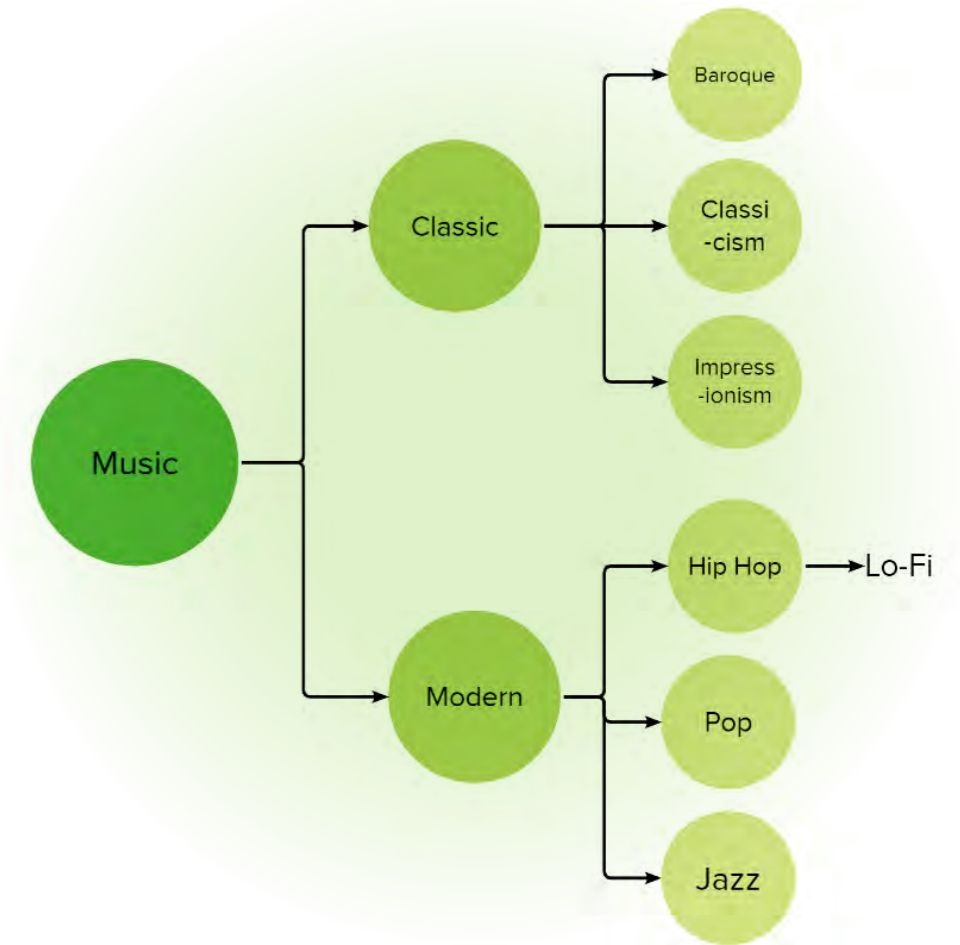
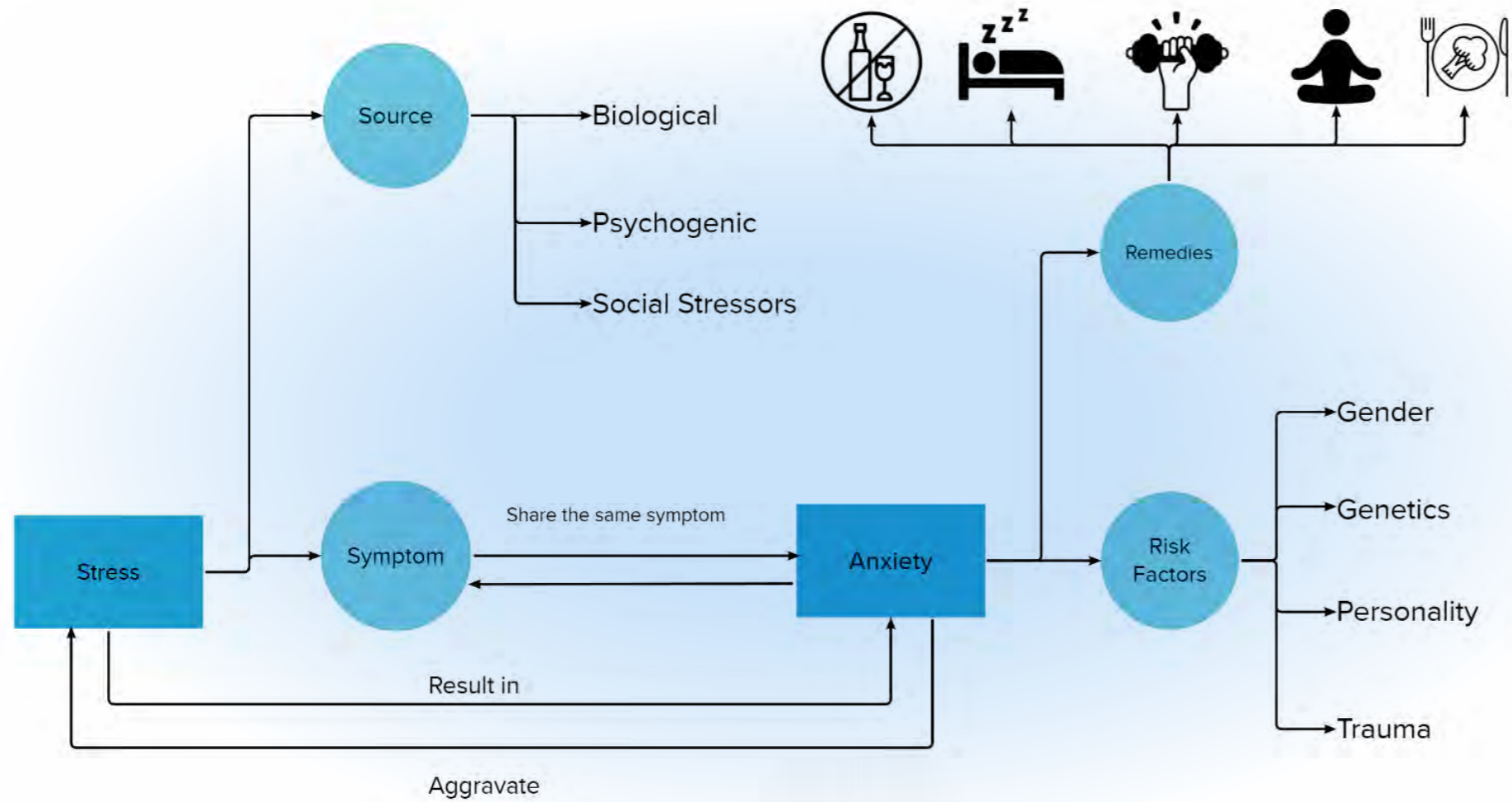
The Methods Most Chosen for Adjusting Mental State

Age/Management	Music	Talk	Sports	Reading	Meditation	Drinking	Online Entertainment
0-15	●	△					○
16-35	△	●					○
36-55	△	○	●				
56-	△	○	●				

●: First Choice
○: Second Choice
△: Third Choice

Young people between 16 and 35 are more likely to suffer from mental problems. Stress and anxiety are the problems that bother people the most. In total, most people like music and talking when they are in a bad mood, and young people also pick games as a way to lift mood.

Secondary Research

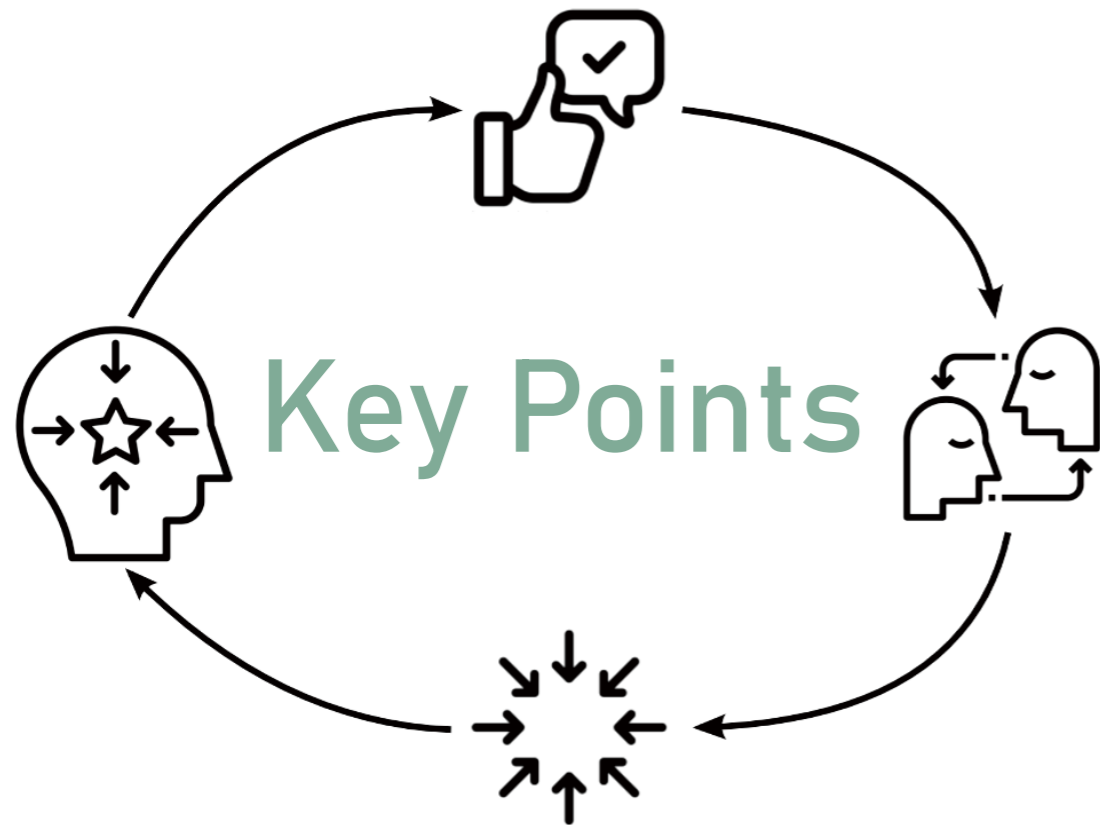


Problem Focus: Stress & Anxiety
Main Element: Music
Music Requirements: Calm, soothing
Colour Requirements: Gentle, distant

Lo-Fi Effects ● ● ●

Product Conception

- User: Young people with mild mental problems
- Aim: Helping people deal with stress and anxiety in their daily lives and stay good mental state
- Using environment: at home



Gamified
(physical, not online)



Participation
Companionship



Music elements
Ambient

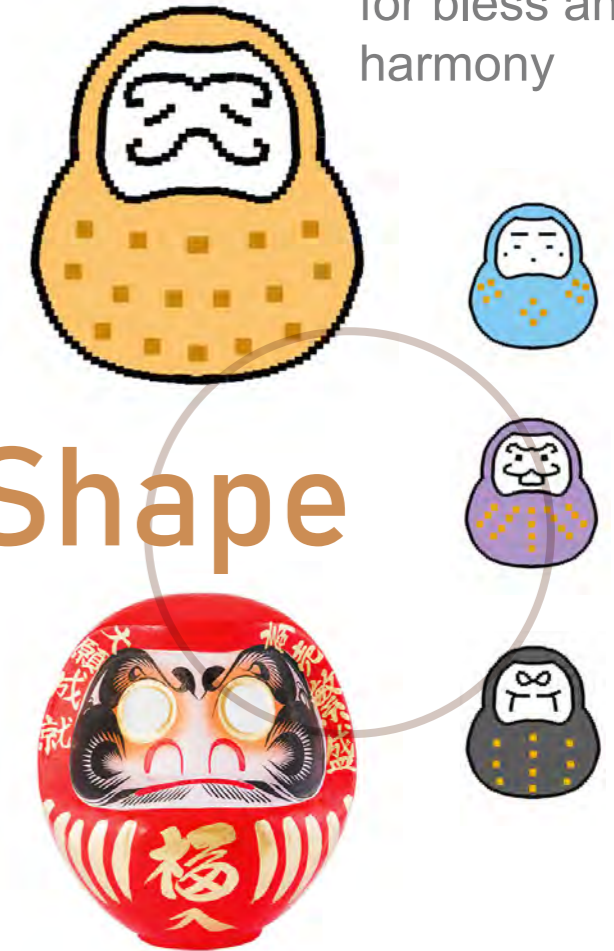
Pixel art is easy and healing
The user can participate in



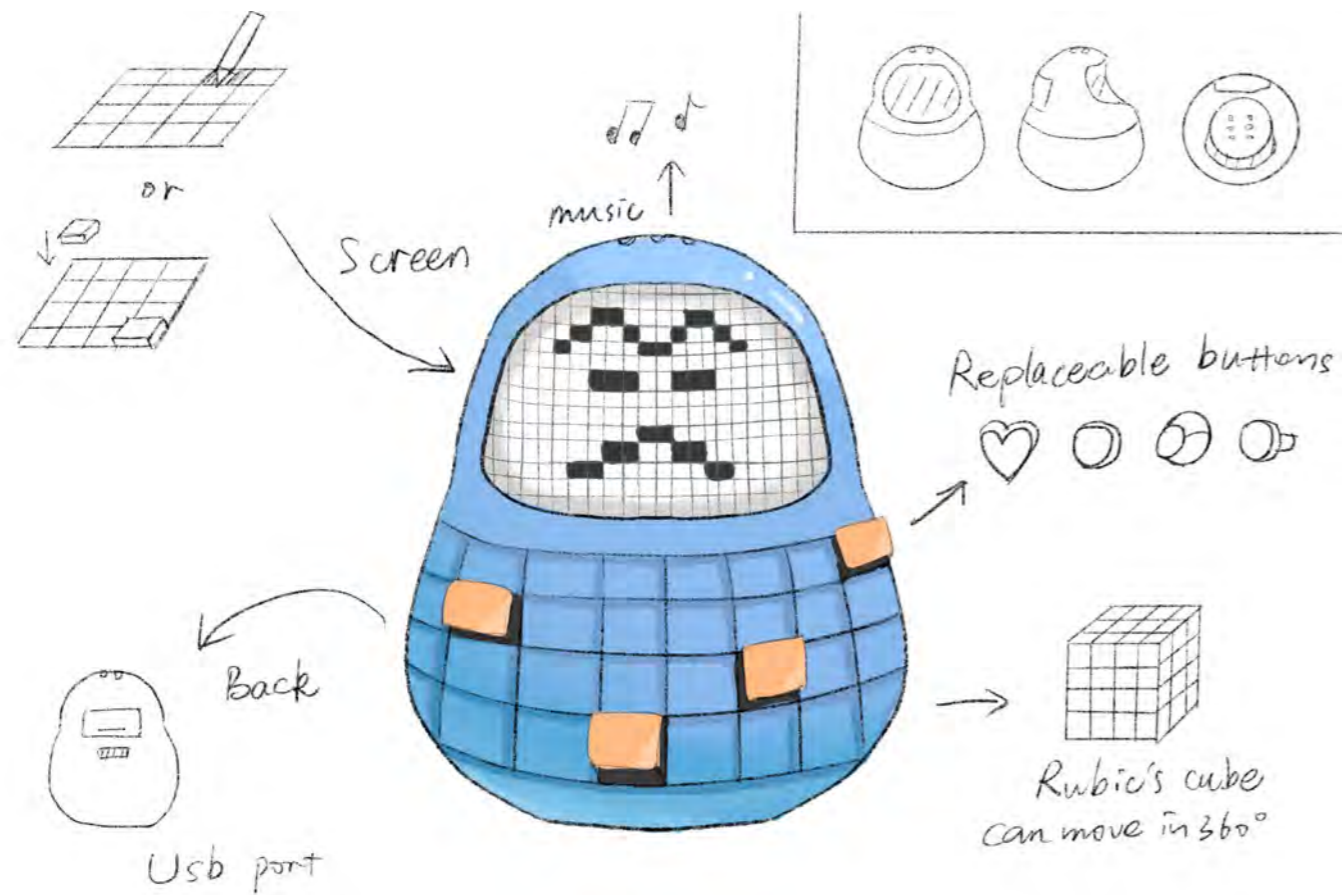
Art Style



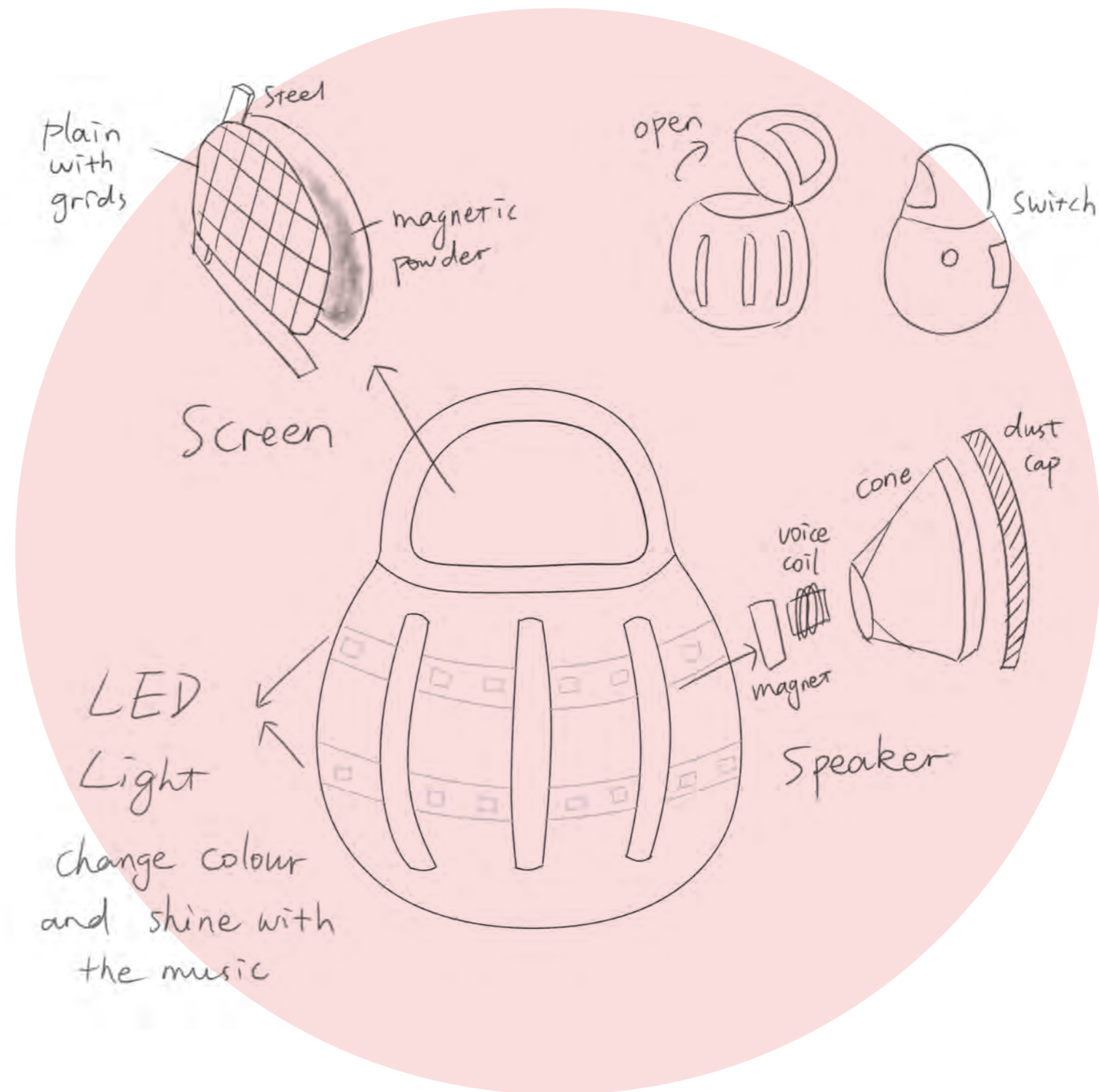
Daruma doll
is a toy stands
for bless and
harmony



Propositions



The initial proposition is making the product a toy that can play music. But it was too complex and lacking in unity, The second one below abandoned the game element on the lower half and made it hollow. Users can add water to it. The higher the water level is, the more Lo-Fi it sounds

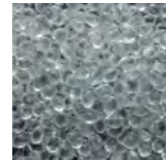


● Prototyping and Improvements ●

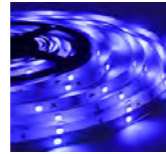
Prototyping



Material



Thermo-plastic Resin



LED Strip Lights



Magnetic Drawing Board

Replaced by a piece of paper for the size issue

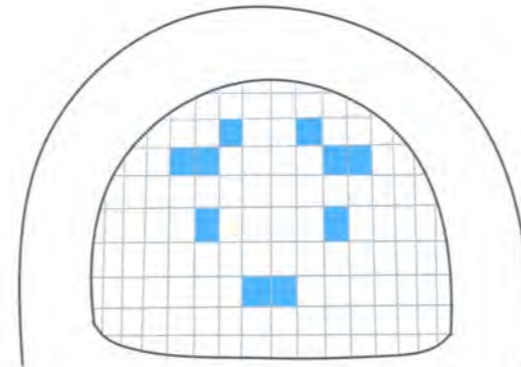
Improvements

It's complex to transmit and analyze the picture on the drawing board. Change it to input from the app.

For convenience, add more buttons on the product to control the functioning.

The adding water process was unnecessary. To be more straight, use progress bar to show mood.

Screen



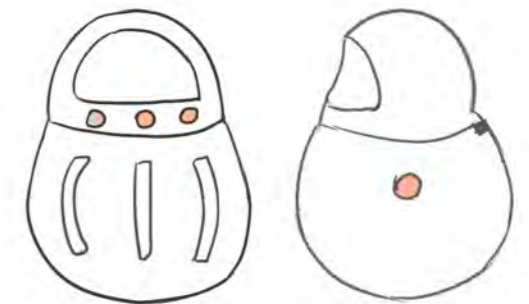
32-bit LED display
Input from smartphone app

Bottom



Filler on the bottom

Switches



Music

Power



1 Paint the face



2 Turn on the music



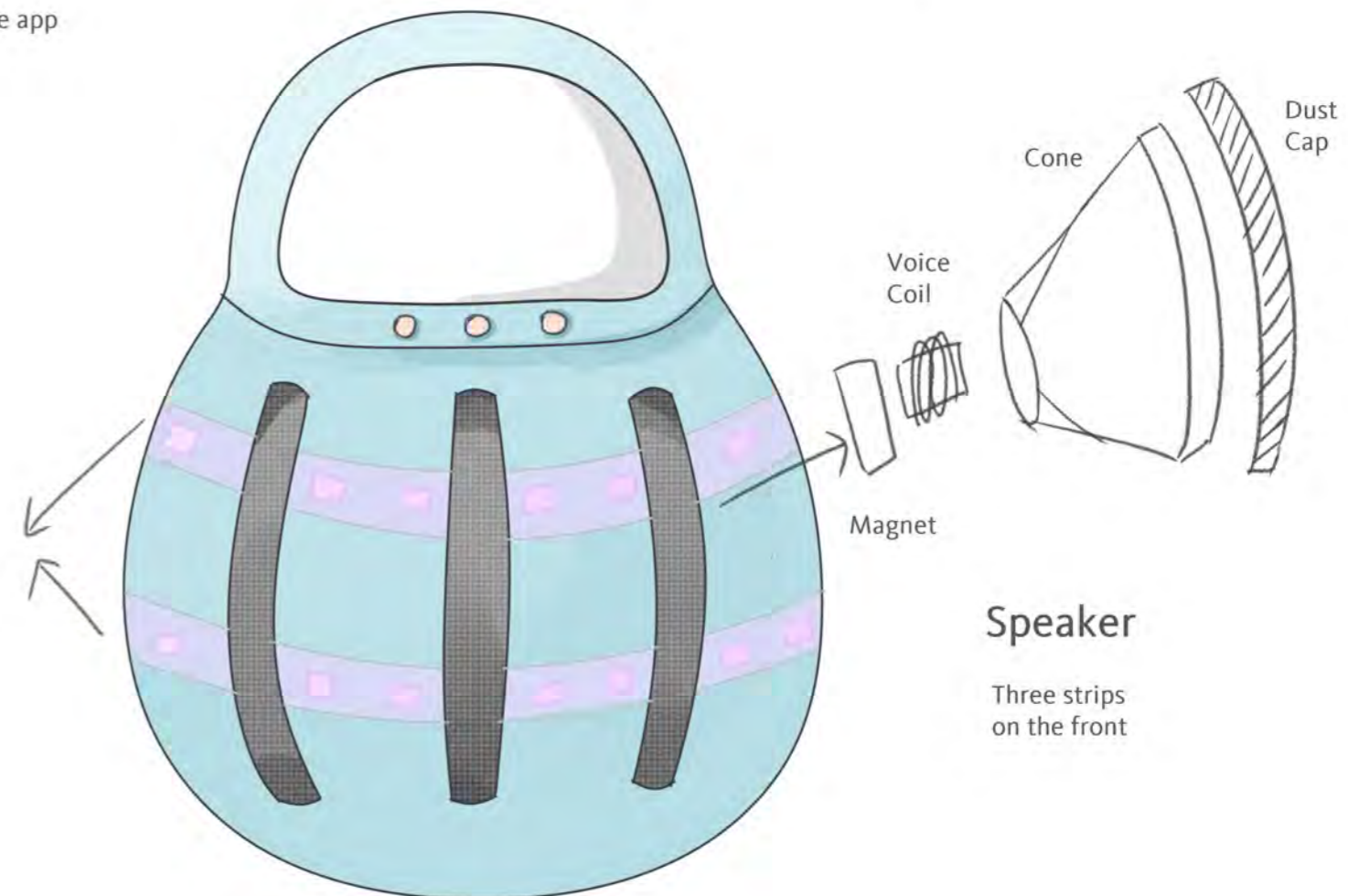
3 Add water into it



4 Push to play with it

LED Light Band

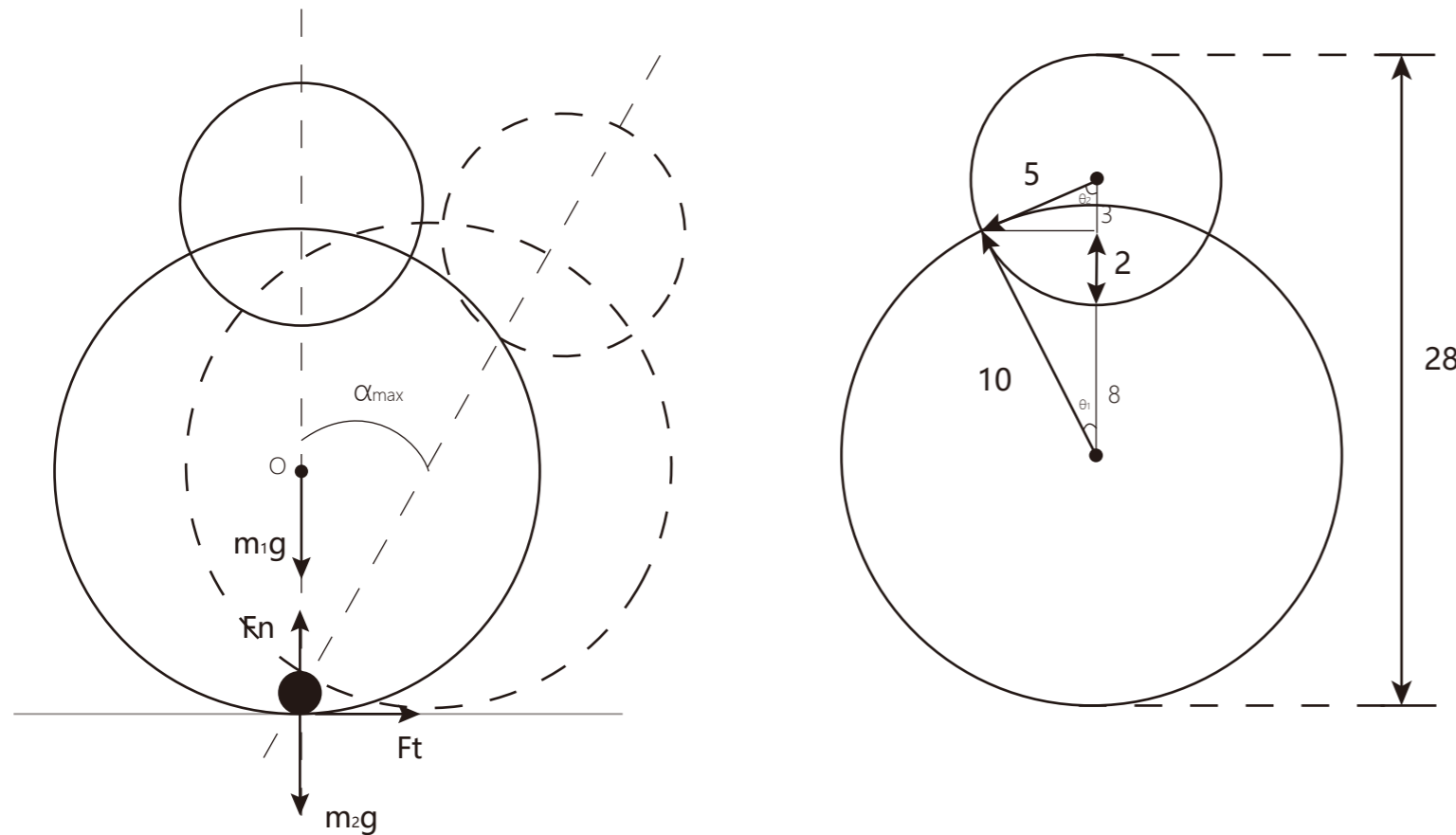
Shine and change colours with the music beat



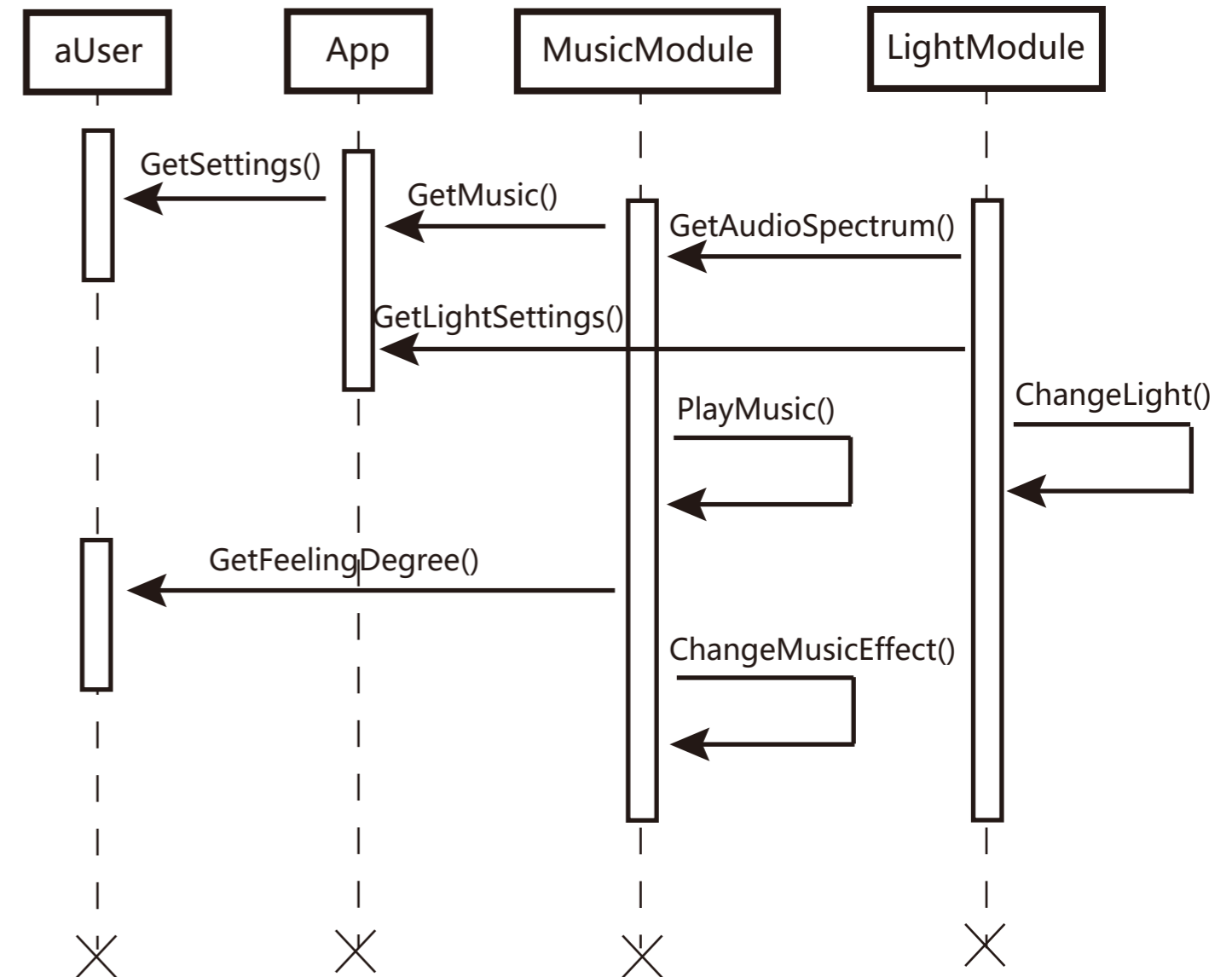
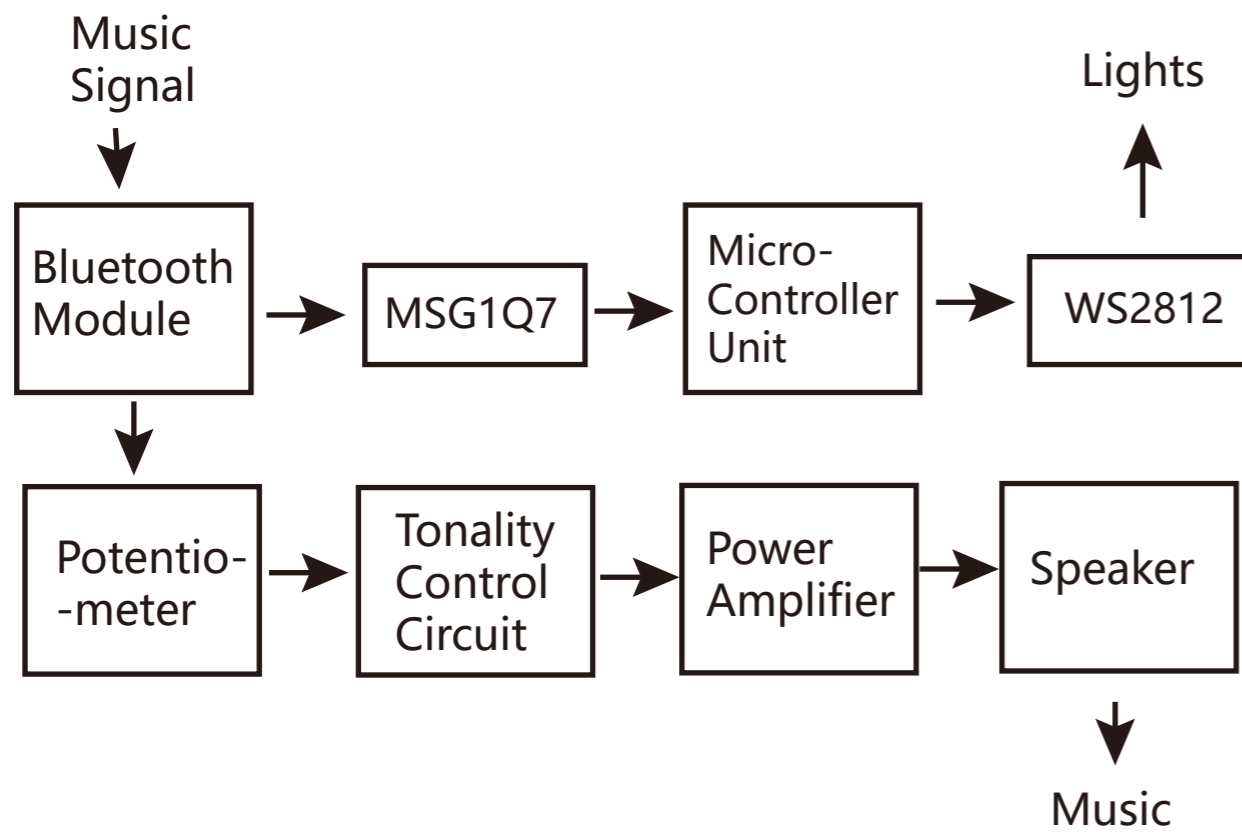
Speaker

Three strips on the front

● Technical Considerations ●



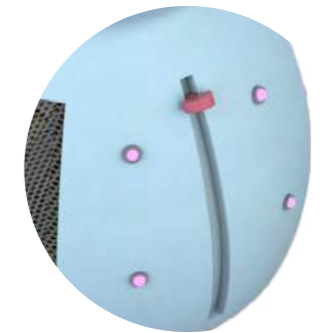
Weight: 890g(shell)+900g(components)+400g(filler)
Material: Cellulose Acetate
Max tilt angle: $\pm 60^\circ$
Connecting: Bluetooth 5.0
Control: Micro Controller Unit/ Chips
Operating: Smartphone app/ Buttons
Power: Rechargeable battery (Charging through USB port)
Working time: 5h
Charging time: 2h



● Final Embodiment ●



Screen & Buttons



Feeling Bar



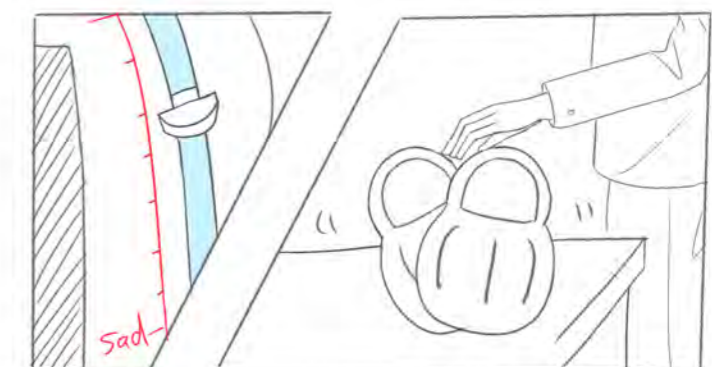
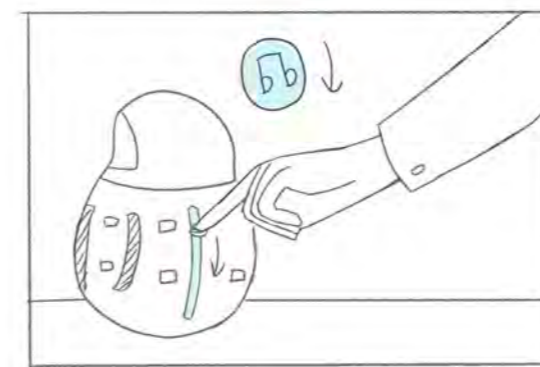
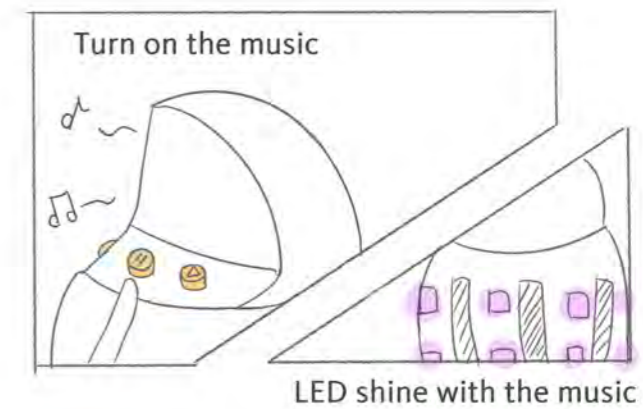
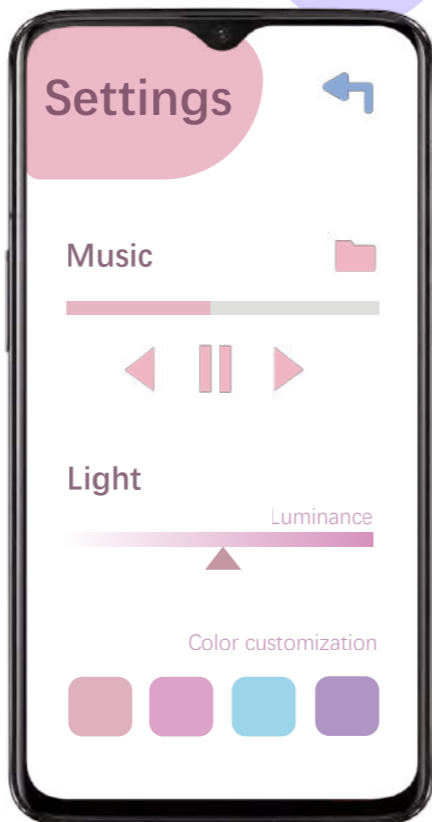
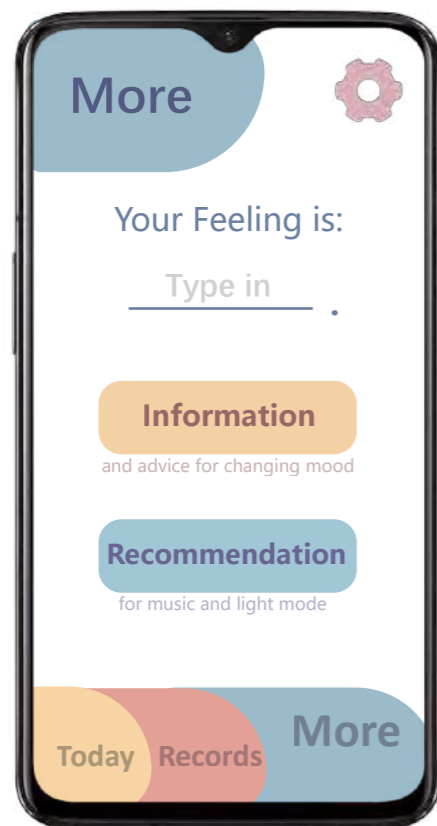
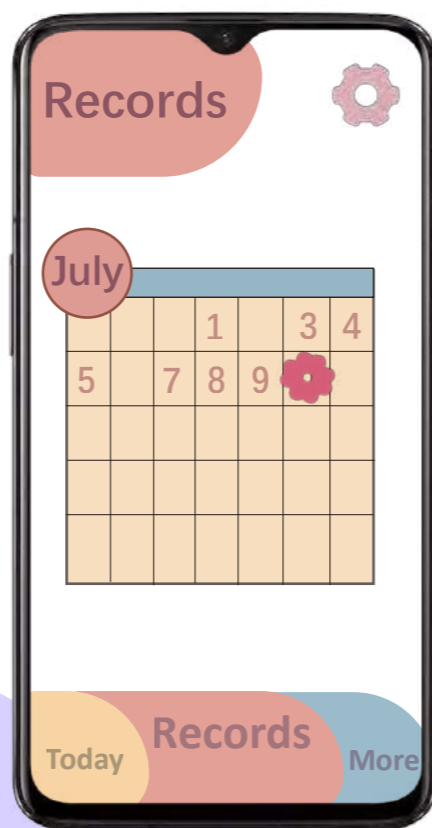
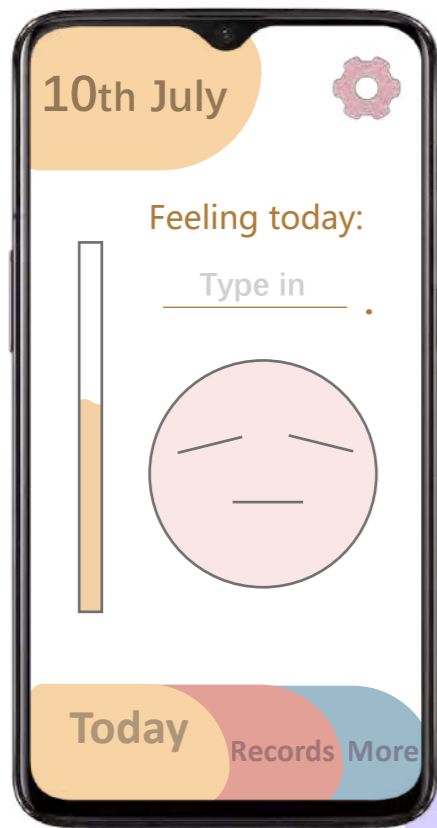
Lights & Speaker



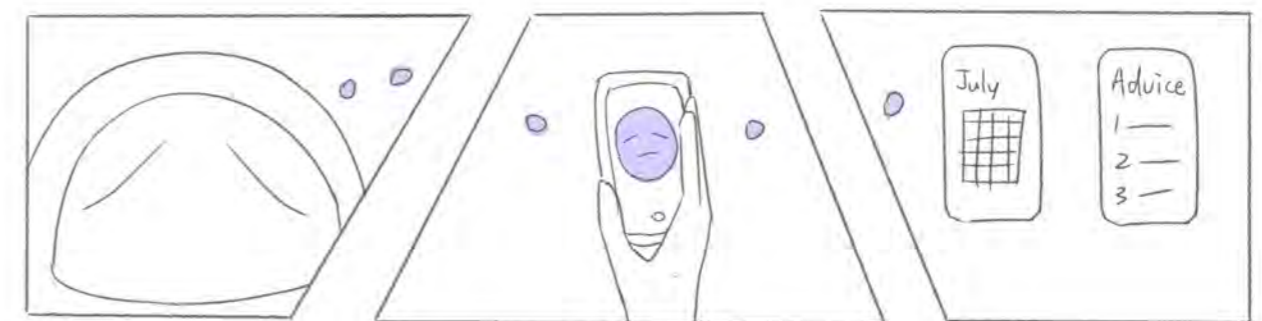
Different Light Mode



UI Design and User Scenario



The bar on the left side stands for the mood you are in
When you drag it down, the music will turn more Lo-Fi



Paint the face to express your feelings
The attached app will record your feelings
and give you advice to change mood.



Accompany you
and calm you down
through the bad time

