The Wizard

Team members: XU Ruopeng
Tanaka Yuka
WANG Yuke
Saito tatsuhiko

Ideation

empty → full !

dead → alive!
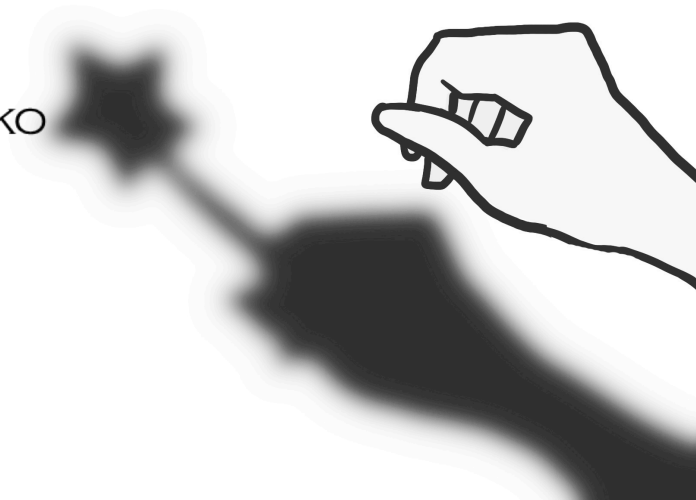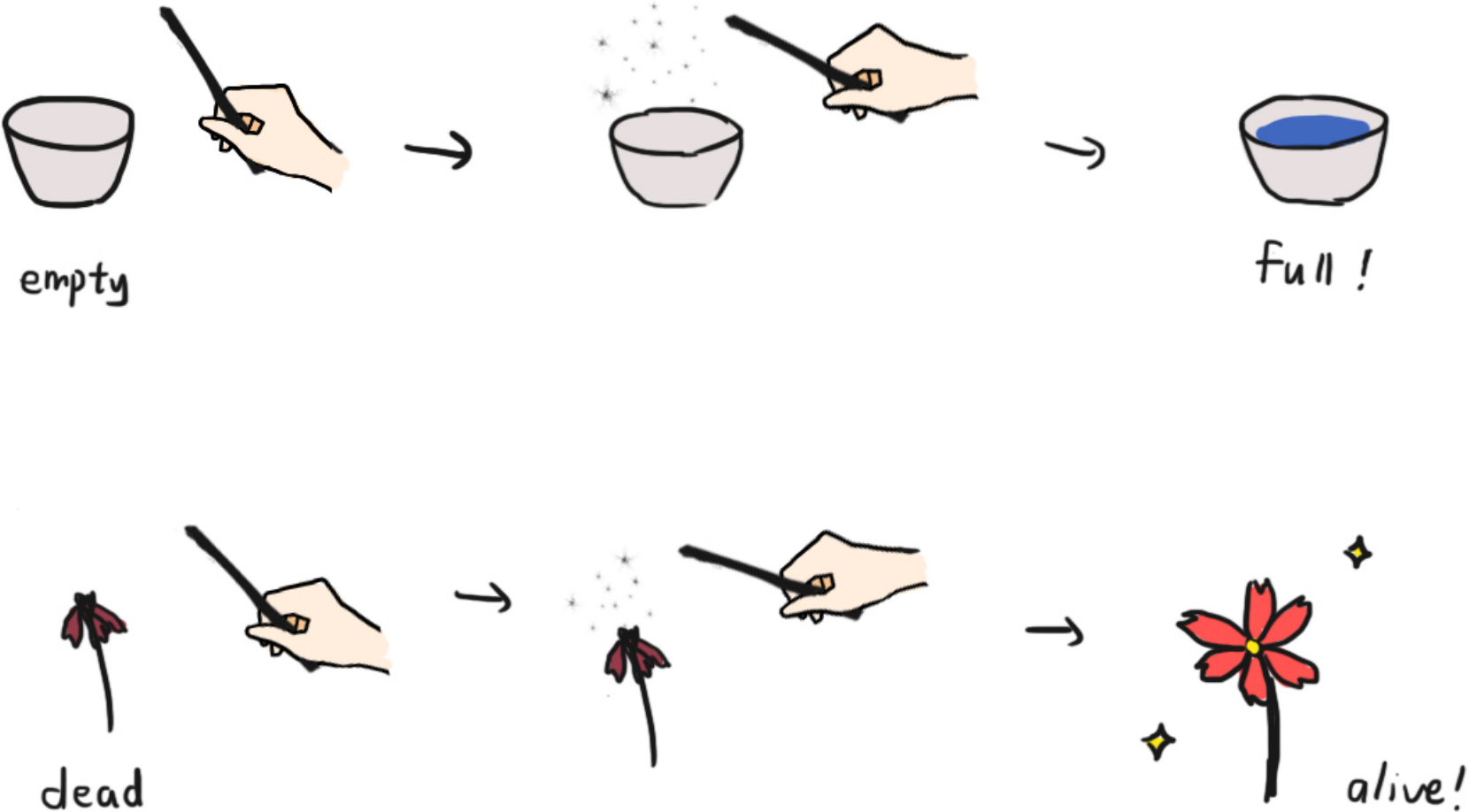
Simplified workflow

```
┌─────────────────────────┐
│  Find specific markers  │◄──────────────┐
└─────────────────────────┘               │
            │                              │
            ▼                              │
┌─────────────────────────┐    ┌──────────────────────┐
│   Calculate distance    │    │  Marker tracking and │
└─────────────────────────┘    │   pose estimation    │
            │                  └──────────────────────┘
            ▼                              ▲
┌─────────────────────────┐               │
│   Compare distance to   │               │
│     previous frame      │               │
└─────────────────────────┘               │
            │                              │
            ▼                              │
┌─────────────────────────┐    ┌──────────────────────┐
│   Decide object state   │    │      Next frame      │
└─────────────────────────┘    └──────────────────────┘
            │                              ▲
            ▼                              │
┌─────────────────────────┐               │
│   Display wand and      │───────────────┘
│       objects           │
└─────────────────────────┘
```
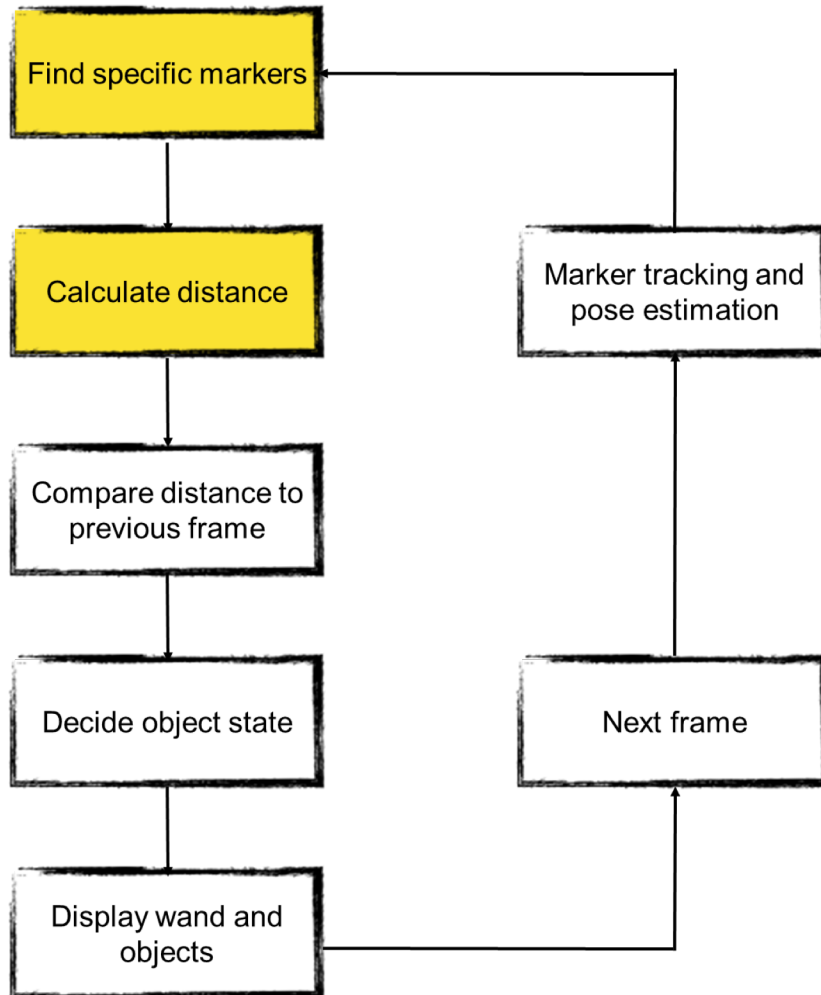
Find specific markers:
- 0x21EE for wand
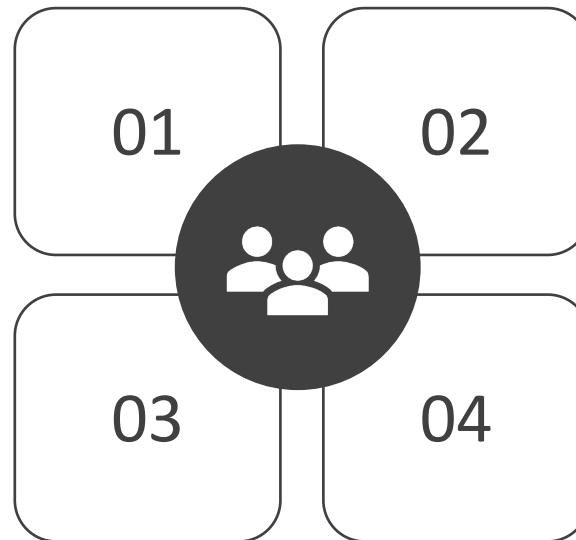- 0x14B7 for cup
- 0x1d59 for flower

Calculate distance
- Offset = from wand center to marker center
- Center_distance = from marker_1 center to marker_2 center
- Distance = Center_distance + Offset

The Wizard

Tanaka Yuka
In charge of coding for detecting the distance between markers

XU Ruopeng
In charge of making the magic wand and pose estimation
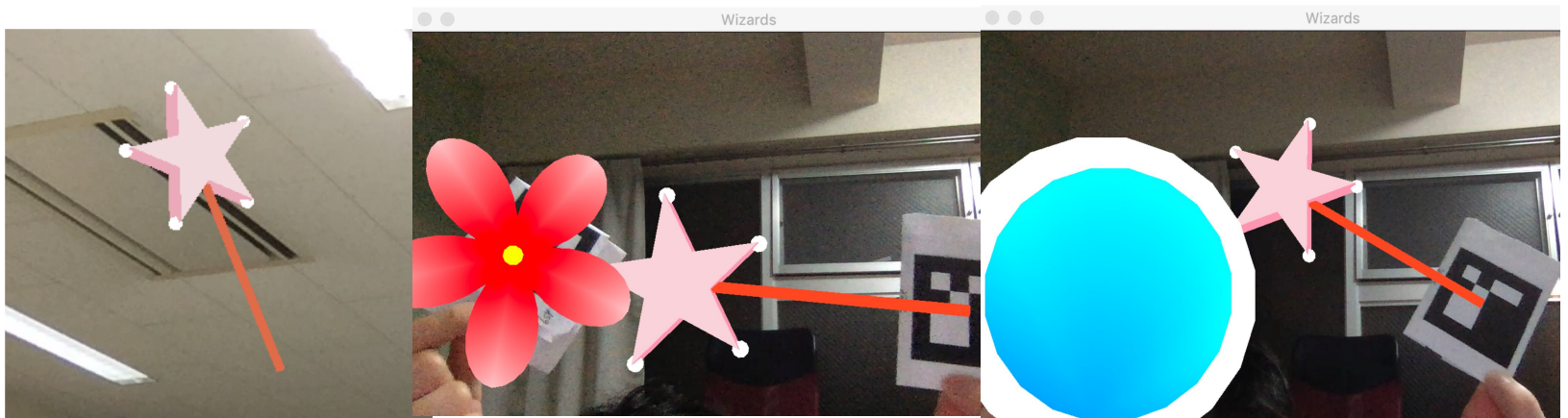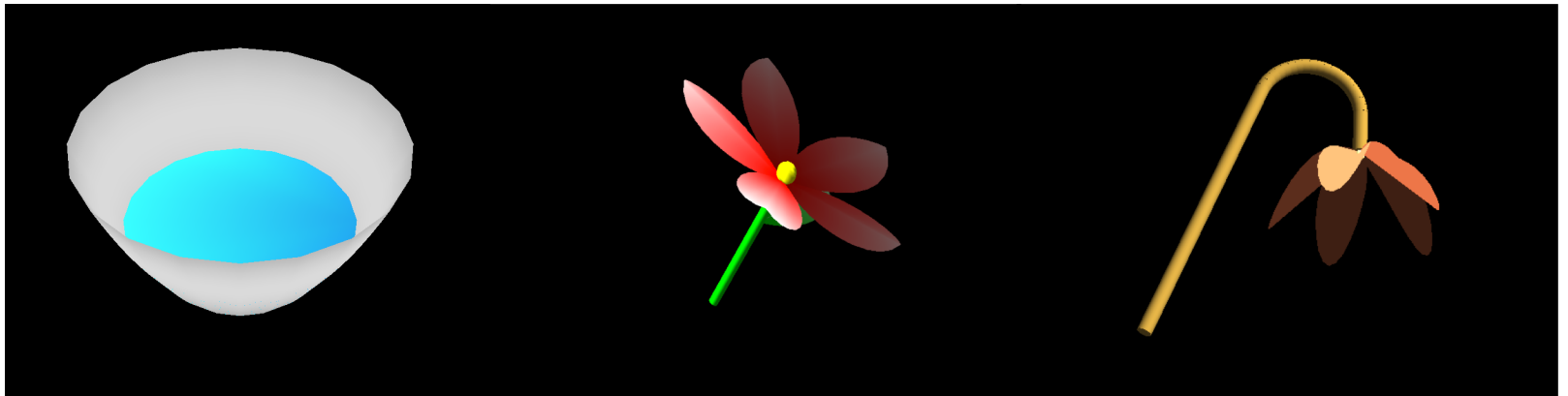
01

02

03

04

Saito tatsuhiko
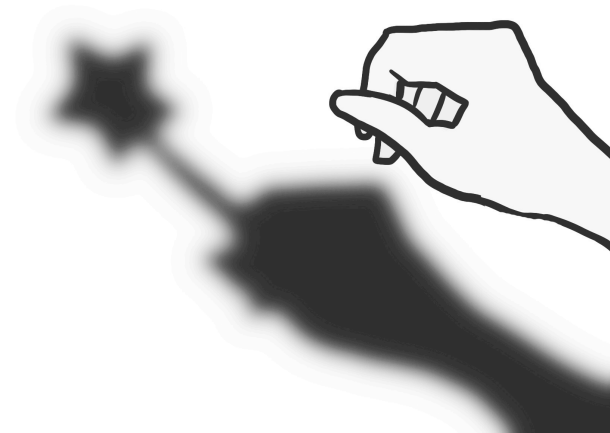In charge of making the dead and alive flower models

WANG Yuke
In charge of making models of the cup/water and slides for presentation

Demo time

Thanks for listening !