Magic Wand Application

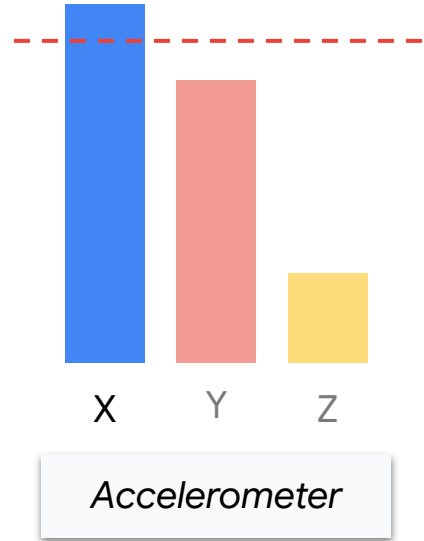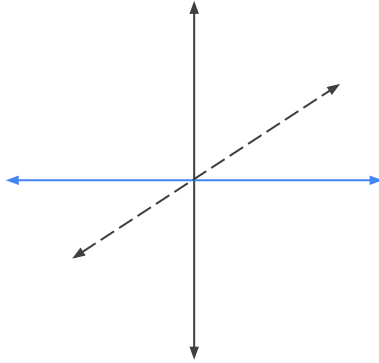# Simple Magic Wand

Accelerometer

Simple Magic Wand

Accelerometer
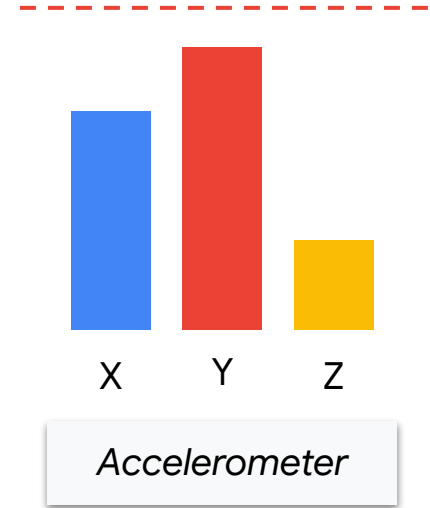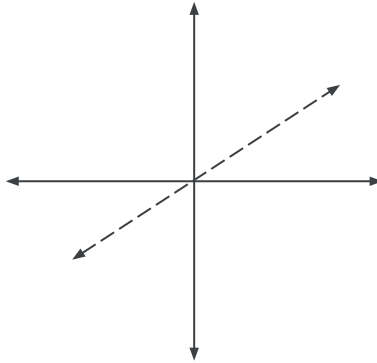
Advanced Magic Wand
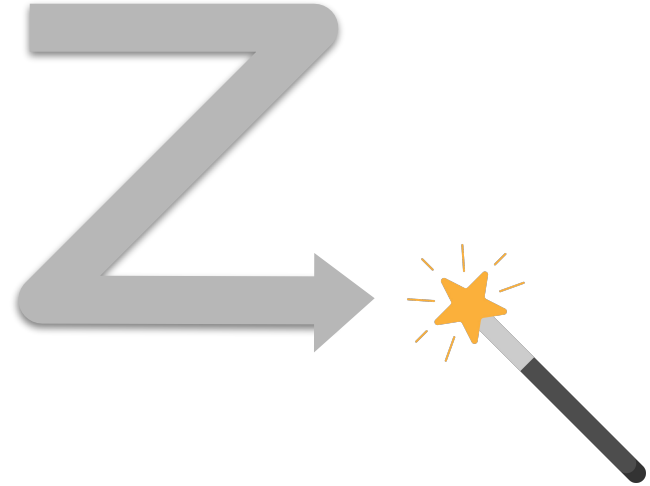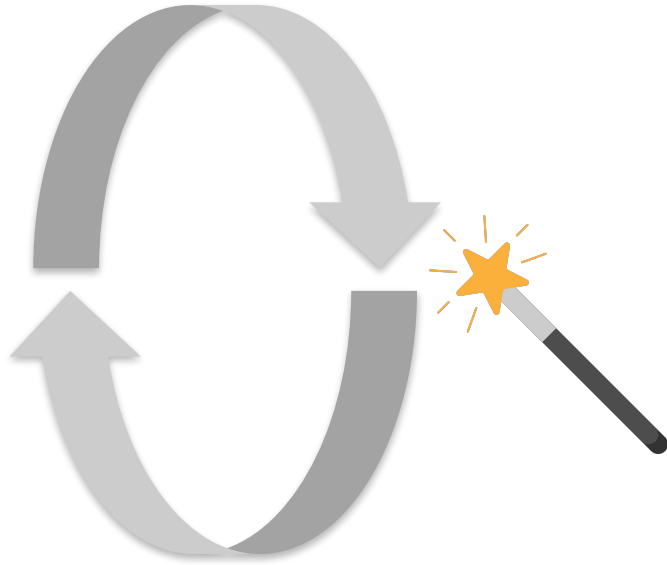
Threshold **Sequence**
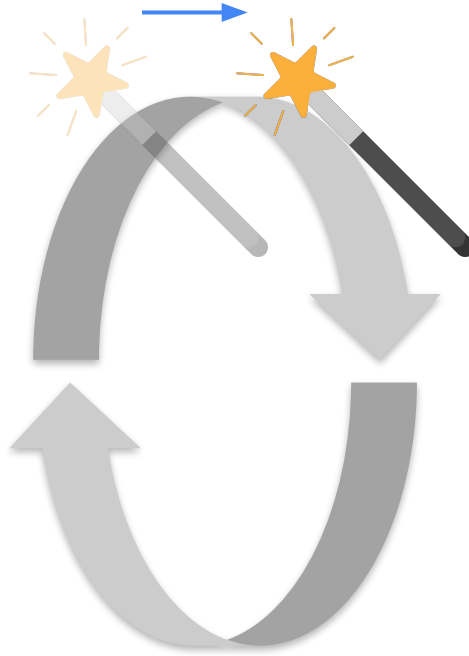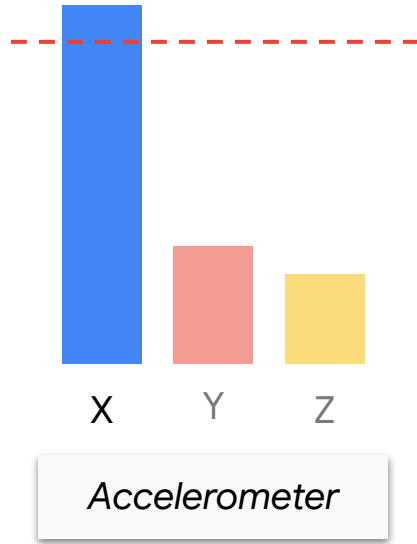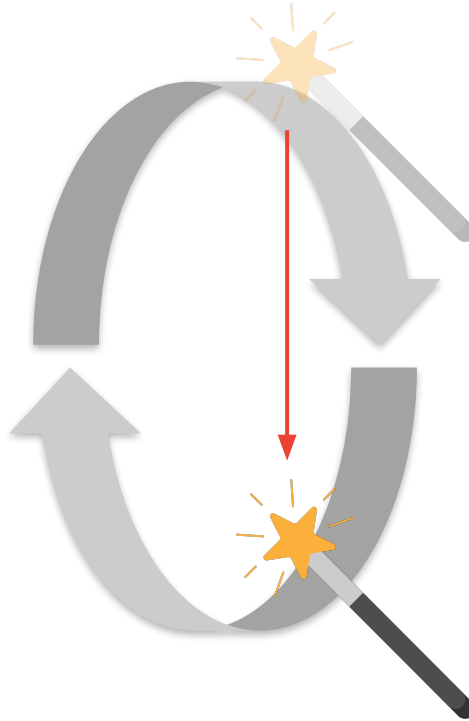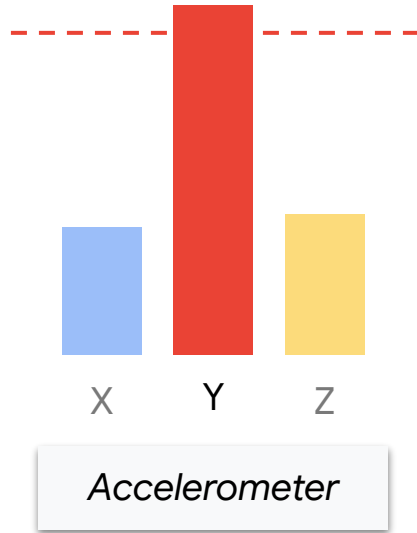

Sequence
X

Threshold **Sequence**
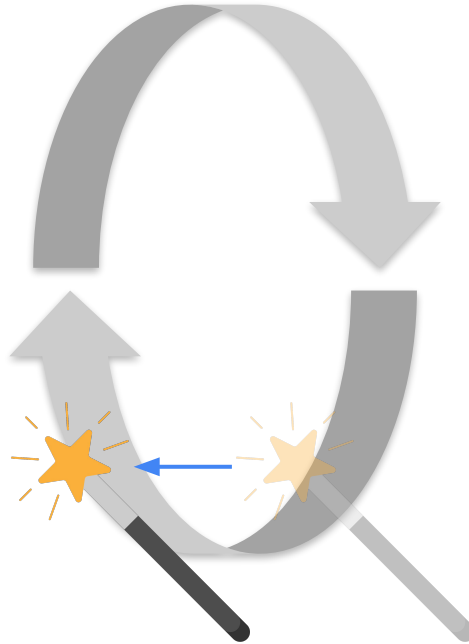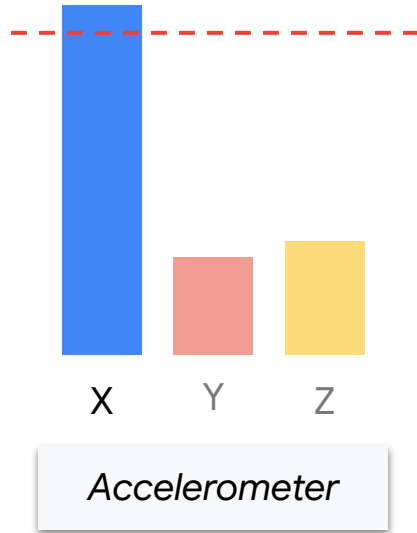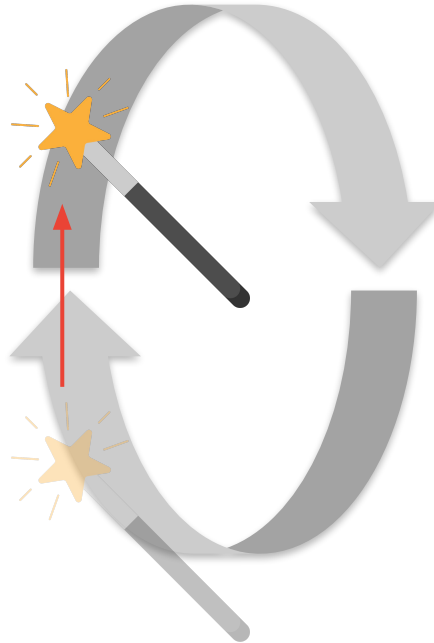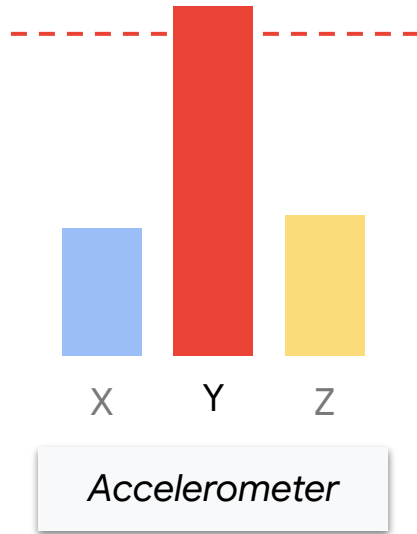

Sequence
X
Y

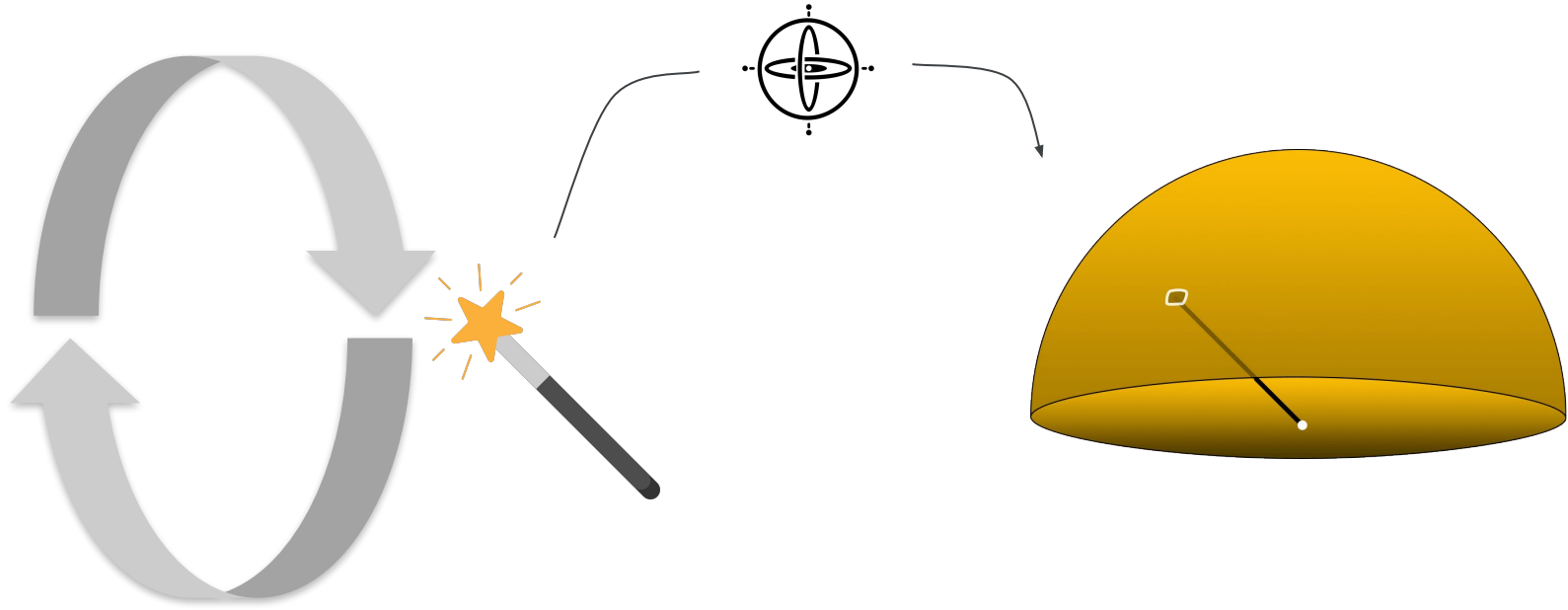# Threshold **Sequence**

Sequence
X
Y
X

Threshold **Sequence**

Sequence
X
Y
X
Y

Variation **Issues**
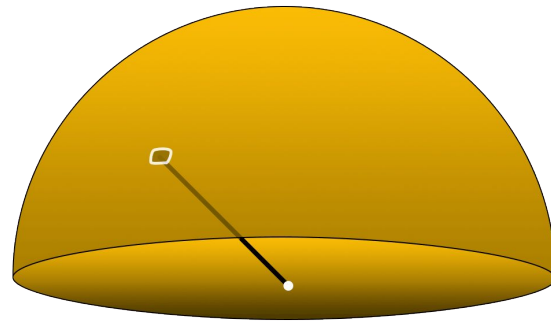
Sequence
X
Y
X
Y

→
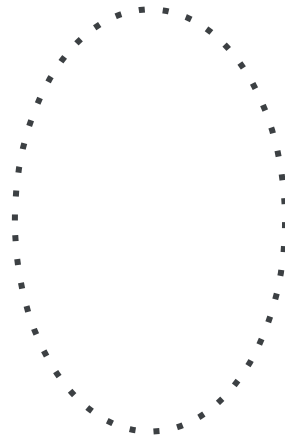
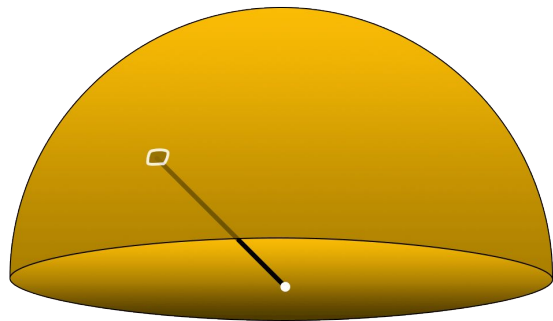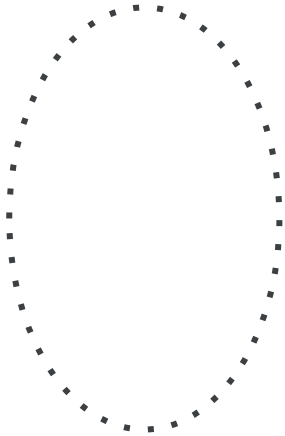| Sequence |
|:---:|
| XY (?) |
| Y |
| X |
| XY (?) |

Angular Position

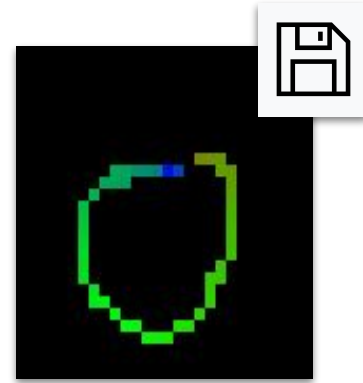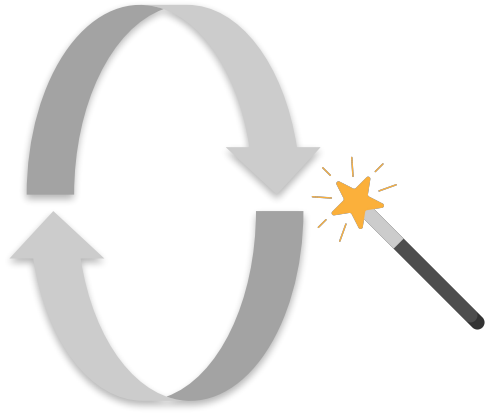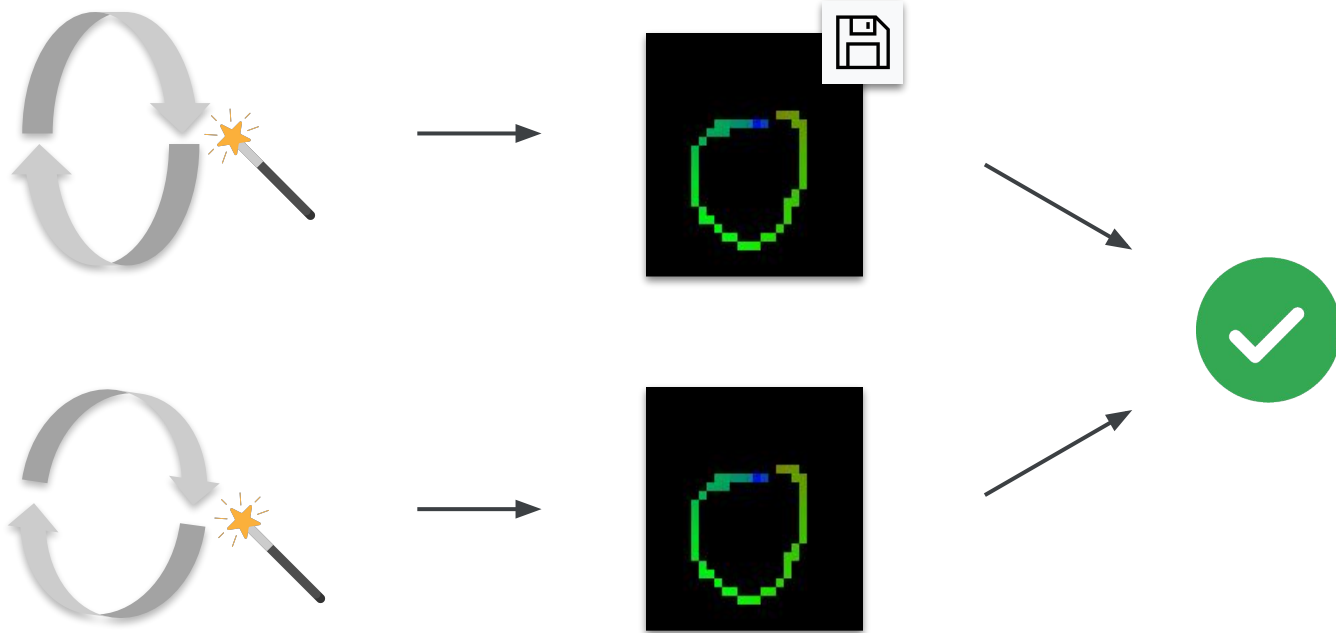# Hard to **visualize**, hard to **classify**

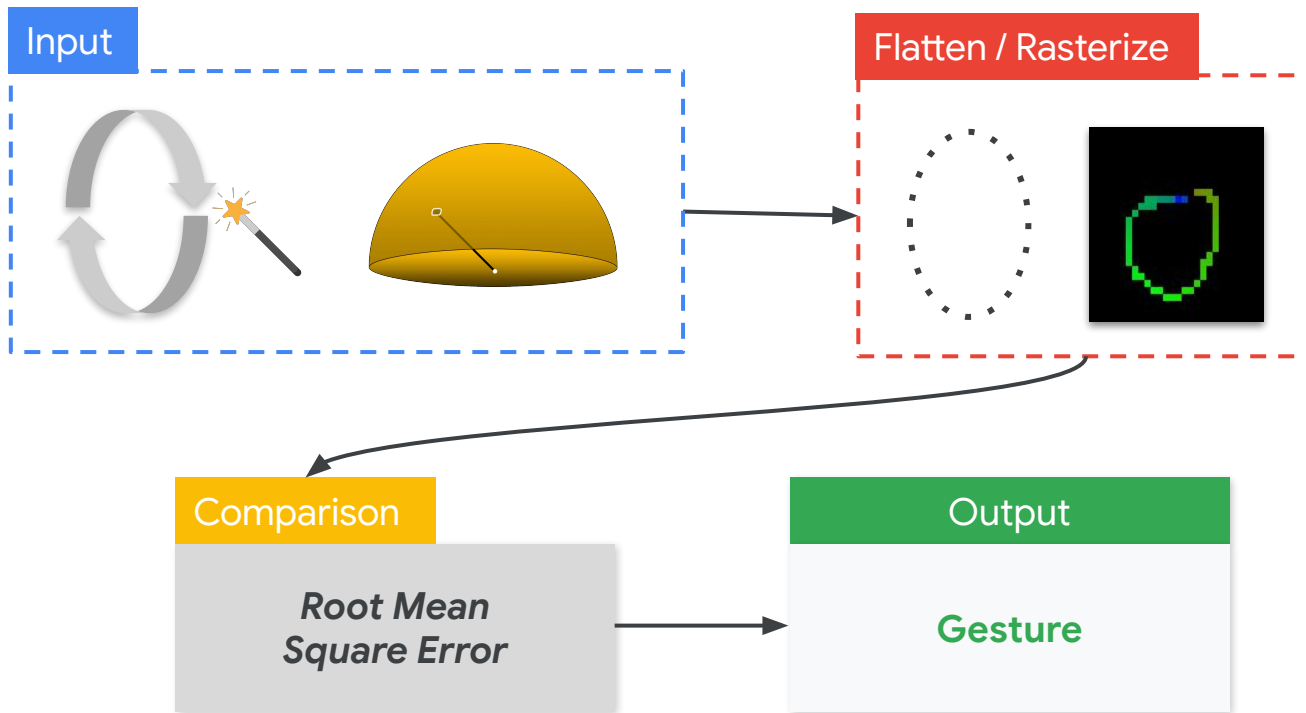# First: **Flatten**

Then: **Rasterize**
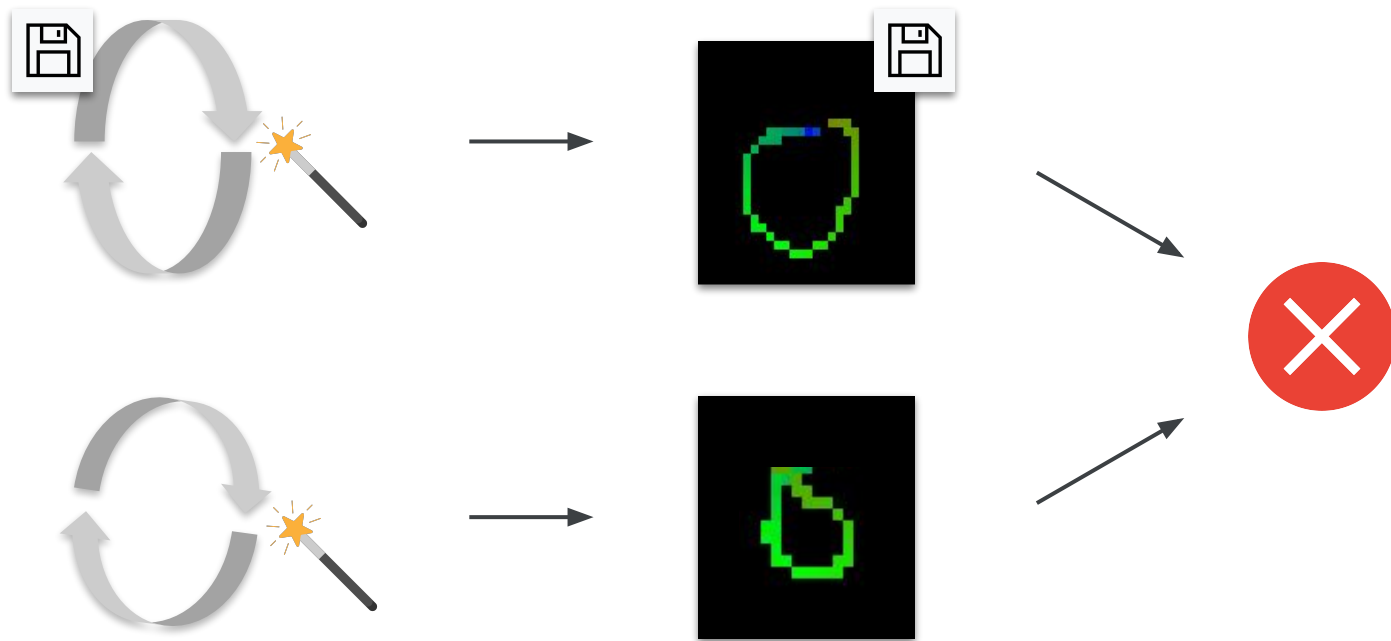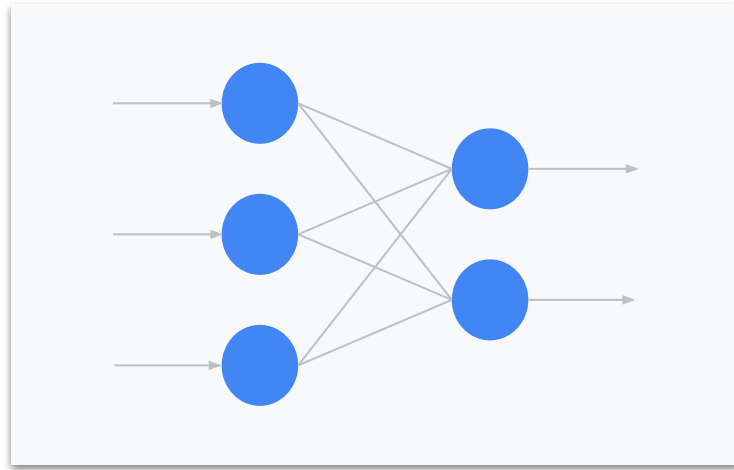
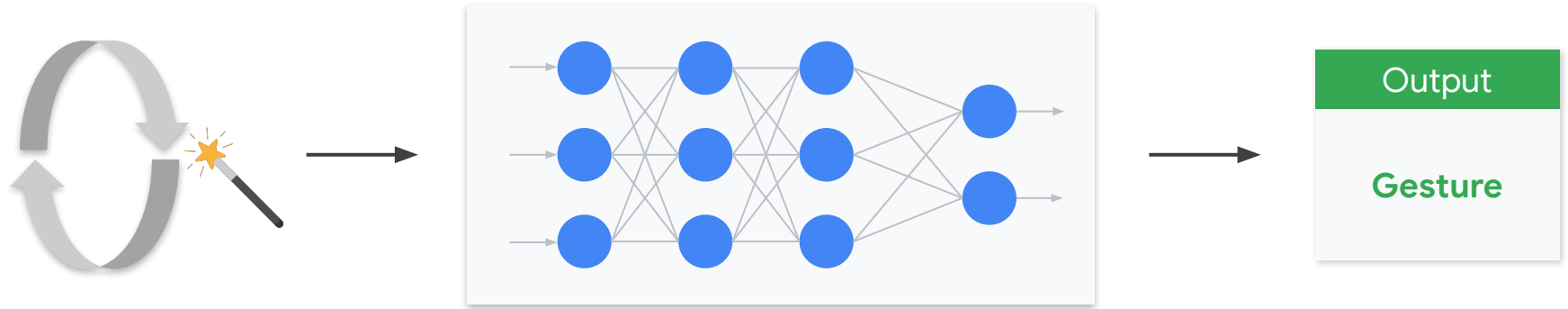# Save: *Reference* Gestures

Comparing Gestures

Stages

Input

Flatten / Rasterize

Comparison
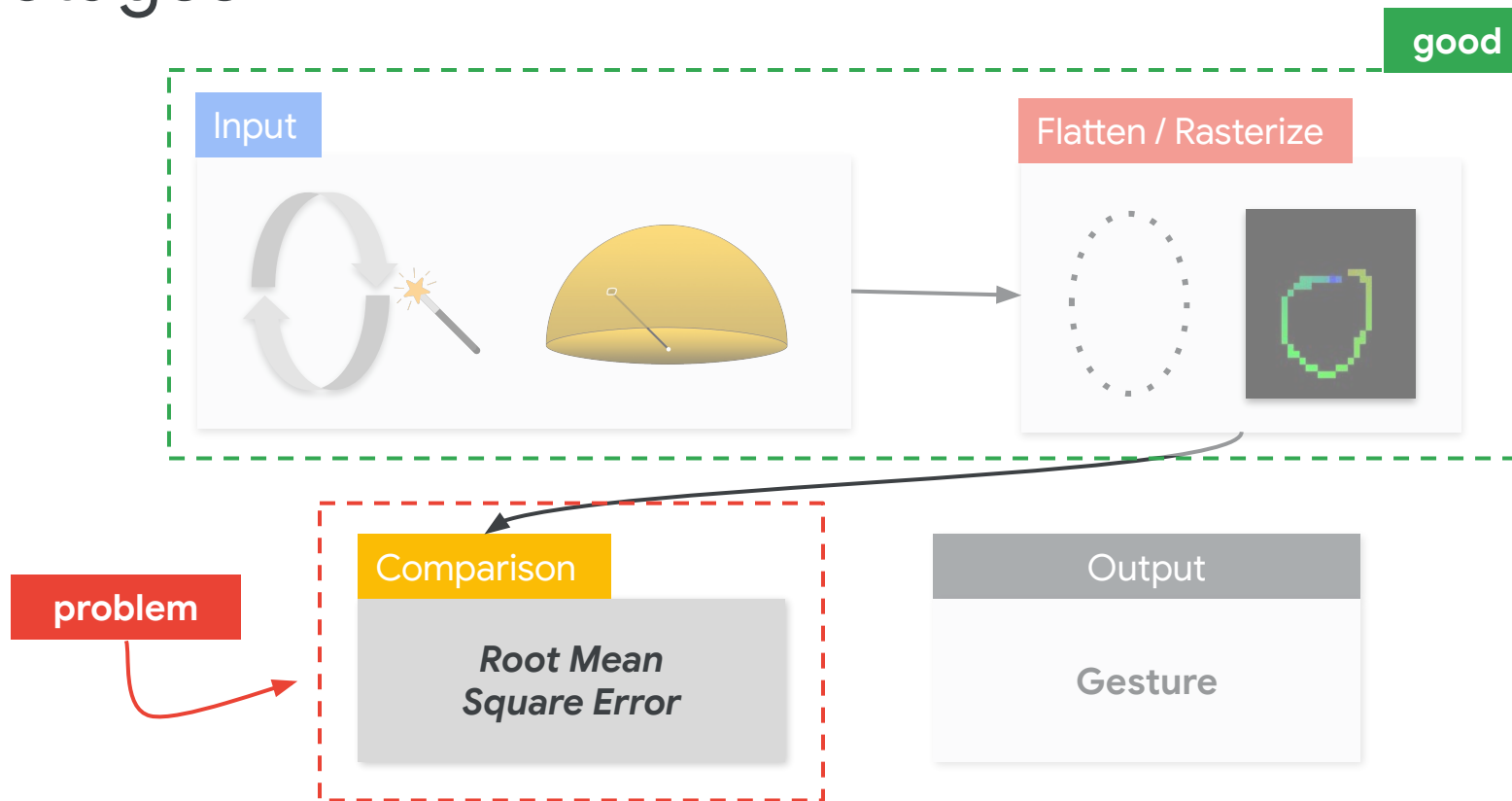
Root Mean Square Error

Output

Gesture

Comparing Gestures

ML Approach

End-To-End Machine Learning

Stages

good

Input

Flatten / Rasterize

problem

Comparison

Root Mean Square Error

Output

Gesture

Stages