The number of the visually impaired in China is the largest in the world.

About 18% of the world’s population are visually impaired.

13 million people with low vision.

1 out of every 100 people can’t see.
Challenge Statement
“Assist Visually Impaired in Their Everyday Life”
Need-Finding Library
Need-Finding
Special School
Need-Finding

Typical users
• The access to the world is limited
• Lack of image information
上帝给了人类一双眼睛
God gave man a pair of eyes
Touch to “See”
A new approach

How to make the touchable image easier to recognize?

Shape

Line/dot

Size
In addition to contour information, how to sense grey scale through touchable images?

Thickenes of line

Density of dot

Deep

Shallow
How to **transform** a normal picture to a touchable image?
Please Choose Image:

```
C:\Users\YangHang\Desktop\blind\Program\test image34.jpg
```

Choose

Test Image:

[Image of a yellow bicycle]

Matching Template Image:

[Image of a black bicycle outline]
3 Hardware

THE TOUCHABLE INK
A special ink that transforms any home printers into braille printers.

Map of Italy
- Milan
- Rome
- Naples
- Sardinia
Application scenarios

EDUCATION
image in textbook
map atlas
photography

PICTUREBOOK
comic strip
cartoon
science book

BARRIERFREE
public places
restaurant menus
supermarket goods
Our Vision

Cultivate ability for the visually impaired to perceive the world by touching images

Help the visually impaired communicate with all people through images without any barrier
感受图片的方式只有看吗？
没有别的方式吗？

Do we understand the pictures only through the eyes?
Is there any other way?
Team

Instructor: Weiping Li

Teach assistant: Yongquan HU

Chengyuan Bian    Hang Yang    Yanruo Yang    Xiangyang Qin