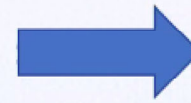
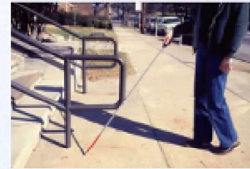


An iPhone Application with Nearest Obstacle Detection for the Visually Impaired

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Motivation

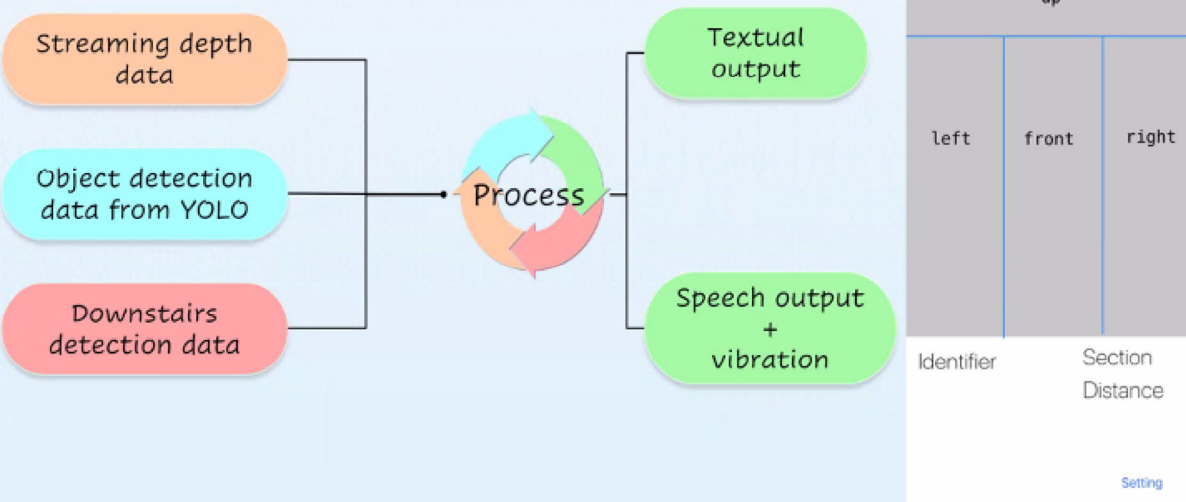
- According to Hong Kong Blind Union, 174,800 people with visual impairment (2.4%), 7,800 people are totally blind
- A white cane cannot perfectly ensure safety



Obstacle Detector

- Free and independent app
- Cannot totally replace a white cane, but can provide much assistance
- Much larger detection range than a white cane

Methodology



Results

Default speech output:
“the direction of the object”
+
“the distance from object”
e.g. “left 3.7 meters”

