

1. IKEA Catalog experiments:

(a) Everything I tried can be placed in a space, such as chairs, storage boxes, lamps, drawers chest, baskets, closets, tables etc.

(b) Some abnormal phenomenon:

(i) When placing a tall object, such as tall mirror, it will reach to the ceiling.

(ii) When placing a big object larger than table, even only 1/3 surface of this object on the table, it still on the table and won't fall down.

【Conclusions】 : The IKEA Catalog AR doesn't work very well on recognize the space and layout of furniture. Therefore, you can put anything on the table and result in a mess view.

2. Google Translate application experiments:

(a) Brightness level:

(i) on brightness level 0 (totally dark) and level 1, Google Translate App fail to identify anything.

(ii) after brightness level 2, Google Translate App can successfully identify objects, detect words, and translate it to the other language.

(b) Shined light angles:

When the brightness is enough and the text size is clear enough to be recognized by Google Translate App in the front position, change the light angles won't affect the result.

(c) Text size & Distance:

When cellphone is away from the title more than 20inch, the text size is too small to distinguished by Google Translate App.

(d) Font types:

I try different font types of printed words, and Google Translate App still can clearly identify all the words.

However, Google Translate App sometimes fail to identify hand writing words.

(f) language translations types:

I've tried Chinese, Japanese, Korean and English, and all these languages works well.

【Conclusion】 Google Translate App is a robust AR tool. Right now, it still results in wrong meaning of translation, and the sentences are not good enough. But it will translate in more correct meaning, and more beautiful sentences with Machine Learning Technology.