AR vision (USB)

1. AR vision (USB)

AR (Augmented Reality) vision is a technology that superimposes virtual information on the real world.

The AR system has three outstanding features: ① Information integration between the real world and the virtual world; ② Real-time interactivity; ③ Adding and positioning virtual objects in a three-dimensional space.

By using cameras, sensors and computer vision algorithms, the AR vision system can capture and analyze the real environment in real time, superimpose computer-generated images, text or other virtual content on the real scene seen by the user, thereby enhancing the user's perception and interactive experience.

2. Effect preview

Click the preview screen and press `f` to switch the virtual three-dimensional object model.

```
cd ~/yahboom_ws   source install/setup.bash   ros2 run camera simple_ar_usb
```

jetson@yahboom: ~/yahboom_ws

```
jetson@yahboom:~$ cd ~/yahboom_ws
jetson@yahboom:~/yahboom_ws$ source install/setup.bash
jetson@yahboom:~/yahboom_ws$ ros2 run camera simple_ar_usb
import done
cv_edition:  4.10.0
start
[ WARN:0@1.429] global cap_gstreamer.cpp:1777 open OpenCV | GStreamer warning: C
annot query video position: status=0, value=-1, duration=-1
[ WARN:0@1.430] global cap_gstreamer.cpp:2152 setProperty OpenCV | GStreamer war
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[ WARN:0@1.430] global cap_gstreamer.cpp:2152 setPropert
ning: GStreamer: unhandled property
Gtk-Message: 19:07:28.379: Failed to load module "canber
```

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Bench

jetson@yahboom: ~/yahboom_ws

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Stickman

jetson@yahboom: ~/yahboom_ws

```
jetson@yahboom:~$ cd ~/yahboom_ws
jetson@yahboom:~/yahboom_ws$ source install/setup.bash
jetson@yahboom:~/yahboom_ws$ ros2 run camera simple_ar_usb
import done
cv_edition:  4.10.0
start
[ WARN:0@1.421] global cap_gstreamer.cpp:1777 open OpenCV | GStreamer warning: C
annot query video position: status=0, value=-1, duration=-1
[ WARN:0@1.421] global cap_gstreamer.cpp:2152 setProperty OpenCV | GStreamer war
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[ WARN:0@1.421] global cap_gstreamer.cpp:2152 setPropert
ning: GStreamer: unhandled property
Gtk-Message: 19:12:54.012: Failed to load module "canberr
```

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