

相机控制ROS服务

- `ros2 service list` 查看所有服务。
- 如果在配置文件没打开相应的传感器，不会有相应的service，（需求里面的topic 可配置）。
- 相关命令

- 获取相机外参数

```
ros2 topic echo --qos-durability=transient_local  
/camera/extrinsic/depth_to_color --qos-profile=services_default
```

- 获取相机参数

```
ros2 service call /camera/get_camera_info  
astra_camera_msgs/srv/GetCameraInfo '{}'
```

- 获取SDK版本

```
ros2 service call /camera/get_sdk_version  
astra_camera_msgs/srv/GetString '{}'
```

- 获取设备信息

```
ros2 service call /camera/get_device_info  
astra_camera_msgs/srv/GetDeviceInfo '{}'
```

- 设置/获取（自动）曝光

```

# 自动曝光开关，如果手动设置曝光，需要先关闭自动曝光
ros2 service call /camera/set_color_auto_exposure std_srvs/srv/SetBool
'{data: false}'
ros2 service call /camera/set_uvc_auto_exposure std_srvs/srv/SetBool
'{data: false}'
ros2 service call /camera/set_ir_auto_exposure std_srvs/srv/SetBool "
{data: false}"

# 设置曝光值
ros2 service call /camera/set_ir_exposure astra_camera_msgs/srv/SetInt32
"{data: 2000}"
ros2 service call /camera/set_color_exposure
astra_camera_msgs/srv/SetInt32 "{data: 2000}"
ros2 service call /camera/set_uvc_color_exposure
astra_camera_msgs/srv/SetInt32 "{data: 2000}"
# 注意深度没有曝光

```

- 设置/获取增益

```

# 获取增益
ros2 service call /camera/get_color_gain astra_camera_msgs/srv/GetInt32
'{}' # OpenNI camera
ros2 service call /camera/get_ir_gain astra_camera_msgs/srv/GetInt32
'{}' # OpenNI camera
ros2 service call /camera/get_uvc_gain astra_camera_msgs/srv/GetInt32 "
{}" # UVC camera
# 设置增益
ros2 service call /camera/set_color_gain astra_camera_msgs/srv/SetInt32
"{data: 200}"
ros2 service call /camera/set_ir_gain astra_camera_msgs/srv/SetInt32 "
{data: 200}"
ros2 service call /camera/set_uvc_color_gain
astra_camera_msgs/srv/SetInt32 "{data: 200}"
# 注意深度没有增益

```

- 设置/获取镜像

```

ros2 service call /camera/set_color_mirror std_srvs/srv/SetBool '{data:
true}'
ros2 service call /camera/set_ir_mirror std_srvs/srv/SetBool '{data:
true}'
ros2 service call /camera/set_depth_mirror std_srvs/srv/SetBool '{data:
true}'
ros2 service call /camera/set_uvc_color_mirror std_srvs/srv/SetBool
'{data: true}'

```

- 设置/获取(自动)白平衡

```
ros2 service call /camera/get_color_auto_white_balance
astra_camera_msgs/srv/GetInt32 '{}' # 返回 0 或 1
ros2 service call /camera/set_color_auto_white_balance
std_srvs/srv/SetBool '{data: false}'
```

- 打开/关闭激光

```
ros2 service call /camera/set_laser_enable std_srvs/srv/SetBool '{data:
true}' # 打开
ros2 service call /camera/set_laser_enable std_srvs/srv/SetBool '{data:
false}' # 关闭
```

- 打开/关闭风扇

```
ros2 service call /camera/set_fan_mode std_srvs/srv/SetBool '{data:
true}' # 打开
ros2 service call /camera/set_fan_mode std_srvs/srv/SetBool '{data:
false}' # 关闭
```

- 打开/关闭LDP

```
ros2 service call /camera/set_ldp_enable std_srvs/srv/SetBool '{data:
true}'
ros2 service call /camera/set_ldp_enable std_srvs/srv/SetBool '{data:
false}'
```

- 打开/关闭传感器

```
ros2 service call /camera/toggle_ir std_srvs/srv/SetBool "{data :
true}"
ros2 service call /camera/toggle_color std_srvs/srv/SetBool "{data :
true}"
ros2 service call /camera/toggle_depth std_srvs/srv/SetBool "{data :
true}"
ros2 service call /camera/toggle_uvc_camera std_srvs/srv/SetBool "{data
: true}"
```