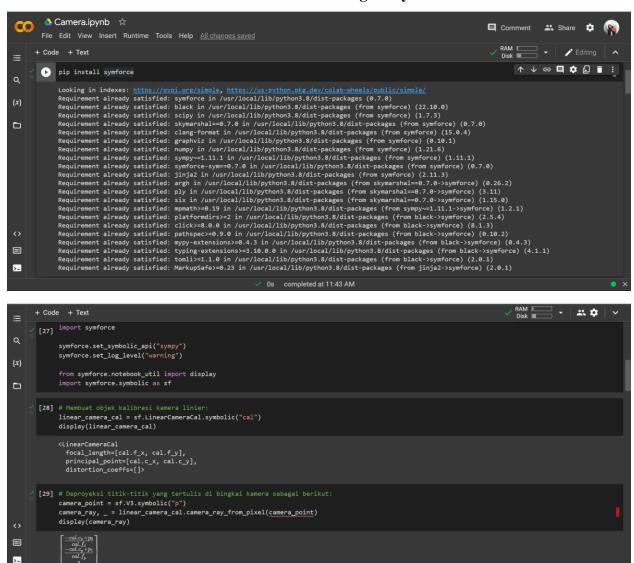
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NIM : 1103194186 Kelas : TK-43-GAB

## **UTS Robotics and Intelligent Systems**



```
RAM Disk
         + Code + Text
        [30] camera_point_reprojected, _ = linear_camera_cal.pixel_from_camera_point(
                        camera_ray,
                   display(camera_point_reprojected)
                   \begin{bmatrix} p_0 \\ p_1 \end{bmatrix}
calibration=sf.LinearCameraCal(
                              focal_length=(440, 400),
principal_point=(320, 240),
                         ),
image_size=(640, 480),
                  display(linear_camera)
                  <Camera
CameraCal=<LinearCameraCal
focal_length=[440, 400],
principal_point=[320, 240],
distortion_coeffs=[]>
image_size=[640, 480]>
▤
>_
         + Code + Text
                                                                                                                                                                                                                                        # #
          [32] point_in_FOV = sf.V3(0, 0, 1)
                  point_outside_FOV = sf.V3(100, 0, 1)
for point in (point_in_FOV, point_outside_FOV):
    pixel, is_valid = linear_camera.pixel_from_camera_point(point)
                               "point={} -> pixel={}, is_valid={}".format(
    point.to_storage(),
                                     pixel.to_storage(),
                                     is_valid,
                  point=[0, 0, 1] -> pixel=[320, 240], is_valid=1
point=[100, 0, 1] -> pixel=[44320, 240], is_valid=0
                  # Membuat kamera dengan pose tertentu:
linear_posed_camera = sf.PosedCamera(
    pose=sf.Pose3(
           0
# Memutar kamera 180 derajat pada sumbu y
R=sf.Rot3.from_yaw_pitch_roll(0, sf.pi, 0),
                         calibration=linear_camera.calibration,
image_size=(640, 480),
                   display(linear_posed_camera)
                     Pose=<Pose3 R=<Rot3 <Q xyzw=[0, 1, 0, 0]>>, t=(0, 0, 0)>
Camera=<PosedCamera
                      CameraCal=<LinearCameraCal
                     Cameracal=cameracal=
focal_length=[440, 400],
principal_point=[320, 240],
distortion_coeffs=[]>
image_size=[640, 480]>>
{X}
         [34] # Memberikan pose yang dapat digunakan untuk mengubah titik antara bingkai global dan bingkai gambar:
global_point = sf.V3(0, 0, -1)
global_point.to_storage(),
  (linear_posed_camera.pose * global_point).to_storage(),
                  pixel, is_valid = linear_posed_camera.pixel_from_global_point(global_point)
                         "global_point={} -> pixel={}, is_valid={}".format(
global_point.to_storage(), pixel.to_storage(), is_valid
                  point in global coordinates=[0, 0, -1] (in camera coordinates=[0, 0, 1]) global_point=[0, 0, -1] -> pixel=[320, 240], is_valid=1
```

