

Documentation for tools

activate environment: `conda activate ${environment}`

`${environment}` = 'ros' for ROS, 'alphapose' for AlphaPose

▼ Tool: OpenPose

location: `~/Downloads/pose_estimation/openpose`

how to run: `cd ~/Downloads/pose_estimation/openpose`

`./build/examples/openpose/openpose.bin [—video
./examples/media/video.avi] [—face] [—hand] [—camera 0] [—
model_folder ~/Downloads/pose_estimation/openpose/models] [—json]
[—output_file output_directory]`

▼ Tool: Microsoft Azure Kinect

location: `/usr/include` (headers), `/usr/lib` (libraries), `~/Downloads/kinect-tools/Azure-Kinect-Sensor-SDK` (SDK source files, branch: `release/1.1.x`), `/usr/bin` (default `k4aviewer/body tracker`)

how to run: (1) connect Kinects to the machine via USB

(2) `k4aviewer` (or `~/Downloads/kinect-tools/Azure-Kinect-Sensor-SDK/build/bin/k4aviewer`) (sensor SDK: IR, RGB cameras, Audio) or `k4abt_simple_3d_viewer` (body tracking)

→ install `libk4a1.2 libk4a1.2-dev` on Azure-Kinect-Sensor-SDK (using `ninja`), then install Azure Kinect ROS Driver into `catkin_ws/src/` and then `catkin_make` (on melodic)

→ issue with `libk4a1.2` and `libk4abt0.9` (automatically installs `libk4a1.3`)
[<https://github.com/microsoft/Azure-Kinect-Sensor-SDK/issues/857>]

— `roslaunch azure_kinect_ros_driver driver.launch` → `rqt_image_view`
[https://github.com/microsoft/Azure_Kinect_ROS_Driver/issues/63]

▼ Tool: ROS Melodic

location: ~/catkin_ws (catkin workspace environment)

▼ Tool: ZED

location: /usr/local/zed/tools/ZED\ Explorer (Explorer),
/usr/local/zed/tools/ZED\ Depth\ Viewer (Depth Viewer), examples → cmake
in build folder → make → run binary file

▼ Tool: AlphaPose

location: /Downloads/pose_estimation/AlphaPose

how to run: (demo) python \${file} --indir \${img_directory} - --outdir
\${output_directory} [--video \${video_path}] [--save_video] [--webcam 0] [--
vis] [--save_img] [--list \${list_of_images}]

<https://github.com/MVIG-SJTU/AlphaPose/tree/pytorch>