

HOW TO CHANGE KINECT CAMERA ANGLE USING ROS KINECT AUXILLIARY NODE

Before you start, here is how you change the angle for the Kinect Camera. It is important to use the motor and not physically move the camera angle up and down.

Also, the only Kinect XBOX Model this works on is Model #1414. The reason why only this model works is that Microsoft software is proprietary and the authors for the ROS node do not want to violate copyright laws.

When the camera is located on Baxter's head, I found that a downward tilt angle of -15 degrees worked the best.

Also, consider using a solid color background to make the user's skeleton stand out better for the skeleton tracker program. I hung a dark blue curtain using hooks from the ceiling just behind where the user would stand.

There is a ROS tutorial to tell you how to control the XBOX 360 using the motor. Here is the website:

http://wiki.ros.org/kinect_aux

To start the kinect auxiliary node first make sure you have a roscore running. If you do not, then you can start roscore by opening a terminal and typing in roscore. Once you have done this, minimize the terminal.

```
roscore
```

Open a second terminal and type in the following command:

```
roslaunch kinect_aux kinect_aux_node
```

Open a third terminal and type in the following command to set the angle.

```
rostopic pub /tilt_angle std_msgs/Float64 -- -15
```

You can double check that the angle you want is correct by looking at the rostopic /cur_tilt_angle

```
rostopic echo /cur_tilt_angle
```

Once you are done, changing the camera angle to what you need, close the terminals.