

# Reading the Laser Scanner: rostopic echo scan

header:

seq: 4614

stamp:

secs: 1447

nsecs: 770000000

frame\_id: /camera\_depth\_frame

angle\_min: -0.521567881107

angle\_max: 0.524276316166

angle\_increment: 0.00163668883033

time\_increment: 0.0

scan\_time: 0.0329999998212

range\_min: 0.449999988079

range\_max: 10.0

ranges: [nan, nan, nan, nan, nan, nan, nan,  
nan, nan, nan, nan, nan, nan, n  
an, nan, nan, nan, nan, nan, nan, nan,  
nan, nan, nan, nan, nan, nan, nan, n  
an, nan, nan, nan, nan, nan, nan, nan,  
nan, nan, nan, nan, nan, nan, nan, n  
an, nan, nan, nan, nan, nan, nan, nan,  
nan, nan, nan, nan, nan, nan,

**Angle\_min = -0.52 rad. = -30 deg.**

**Angle\_max = +0.52 rad. = +30 deg**

**Angle\_increment = 0.0016366 rad.**

**Angle\_increment = .093 deg.**

**Scan array is filled from min\_angle to max\_angle (scan is filled right to left).**

**msg.ranges[0] = rightmost scan**

**msg.ranges[len(msg.ranges) -1] = leftmost**

# Reading the Laser Scanner: range\_ahead.py

```
#!/usr/bin/env python
import rospy
from sensor_msgs.msg import LaserScan
# BEGIN MEASUREMENT
def scan_callback(msg):
    range_center = msg.ranges[len(msg.ranges)/2]
    range_left = msg.ranges[len(msg.ranges)-1]
    range_right = msg.ranges[0]
    print "range ahead: left - %0.1f" %range_left, " center- %0.1f" %range_center,
        " right - %0.1f" %range_right
#END MEASUREMENT

rospy.init_node('range_ahead')
scan_sub = rospy.Subscriber('scan', LaserScan, scan_callback)
rospy.spin()
```