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#!/usr/bin/env python
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#A Turtlebot script that displays the image feeds
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import rospy
from geometry_msgs.msg import Twist
from sensor_msgs.msg import Image
import cv2
from cv_bridge import CvBridge
```

```
class DisplayData():
    def __init__(self):
        # initiliaze
        rospy.init_node('DisplayData', anonymous=False)
        cv2.namedWindow("Image Window")
        cv2.namedWindow("Depth Window")
        # What function to call when you ctrl + c
        rospy.on_shutdown(self.shutdown)
        self.bridge = CvBridge()
        rospy.Subscriber("/camera/rgb/image_color/", Image, self.rgbCallback)
        rospy.Subscriber("/camera/depth/image/", Image, self.depthCallback)
        #rospy.spin() tells the program to not exit until you press ctrl + c. If this wasn't
there... it'd subscribe to /laptop_charge/ then immediatly exit (therefore stop "listening" to the
thread).
        rospy.spin();
```

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def rgbCallback(self, data):
    rospy.loginfo("flagCallbackRGB")
    #Convert to openCV image type
    cv_image = self.bridge.imgmsg_to_cv2(data, 'bgr8')
    cv2.imshow("Image Window", cv_image)
    cv2.waitKey(1)
```

```
def depthCallback(self, data):
    rospy.loginfo('flagCallbackDepth')
    cv_image = self.bridge.imgmsg_to_cv2(data)
    dst = cv_image
    cv_image = cv2.normalize(cv_image, dst, 0, 1, cv2.NORM_MINMAX)
    cv2.imshow("Depth Window", cv_image)
    cv2.waitKey(1)
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def shutdown(self):
    # stop turtlebot
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    rospy.loginfo("Stop TurtleBot")
    rospy.loginfo("Stopping code -- Connnor")
    # a default Twist has linear.x of 0 and angular.z of 0. So it'll stop TurtleBot
    #self.cmd_vel.publish(Twist())
    # sleep just makes sure TurtleBot receives the stop command prior to shutting
down the script
    rospy.sleep(1)

if __name__ == '__main__':
    try:
        DisplayData()
    except:
        rospy.loginfo("DisplayData node terminated.")
```