**Connecting MATLAB and ROS**

Linux terminal:

$ export ROS\_IP= <ROS core machine IP>

$ export ROS\_MASTER\_URI=http://<ROS core machine IP>:11311

$ <start a roscore, publisher>

To make the above change permanent, put the above two export commands in the “.bashrc” file, as follows,

$ cd ~

$ gedit .bashrc

At the end of the file “.bashrc”, add the two export statements. (the IP addresses can change so if it doesn’t work the next time check if the IP address is correct)

export ROS\_IP=192.168.198.128

export ROS\_MASTER\_URI=http://192.168.198.128:11311

Restart Linux terminal

In MATLAB use following script:

clc, clearvars

%% Setting the environment

setenv('ROS\_MASTER\_URI','http://192.168.198.128:11311')

setenv('ROS\_IP','192.168.198.1')

%% Make ROS MATLAB connection

rosinit

%% Check if the ROS topics are there

Rostopic list

%% Subscriber for phone application for sensors

phone1 = rossubscriber('/phone1/imu', 'sensor\_msgs/imu')

receive(phone1,3)

%% Publisher for publishing data to ROS

pub = rospublisher('timestamp','std\_msgs/Int64');

%% while loop for receiving the data and publishing it

while 1

data = phone1.LatestMessage;

msg = rosmessage(pub);

msg.Data = data.Header.Stamp.Sec;

send(pub,msg)

pause(0.5)

end

Source: <https://nl.mathworks.com/matlabcentral/answers/119559-why-is-the-ros-subscriber-callback-in-matlab-not-triggered-when-messages-are-published-from-an-exter>