# Rosserial for STM32F401RE

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# Rosserial setup

- sudo apt-get install ros-indigo-rosserial-arduino
- sudo apt-get install ros-indigo-rosserial


- cd <ws>/src
- git clone https://github.com/ros-drivers/rosserial.git
- cd <ws>
- catkin_make

# Rosserial setup

Download

- https://github.com/adamgreen/gcc4mbed/zipball/master

- Run the install script appropriate for your platform:

  Linux: linux_install

- cd ~/gcc4mbed

- make

# Rosserial setup

- rosrun rosserial_mbed make_libraries.py ~/ros/lib


- export  GCC4MBED_DIR=/gcc4mbed

- export ROS_LIB_DIR=~/ros/lib/ros_lib

# Communication STM32F4R401RE Using ROS

## Helloworld

- cd ~/catkin_ws/src/rosserial/rosserial_mbed/src/examples/HelloWorld

- make

  Copy **rosserial_mbed_HelloWorld.bin** in NUCLEO_F401RE folder INTO your device

- roslaunch rosserial_server serial.launch

- rostopic list

- rostopic echo /chatter

# Communication STM32F4R401RE Using ROS

## button_example

- cd ~/catkin_ws/src/rosserial/rosserial_mbed/src/examples/button_example

- make

    Copy **rosserial_mbed_button_example.bin** in NUCLEO_F401RE folder INTO your device

- roslaunch rosserial_server serial.launch

- rostopic list

- rostopic echo /pushed