

Introduction to Rosserial

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WHY ROS?

GETTING STARTED

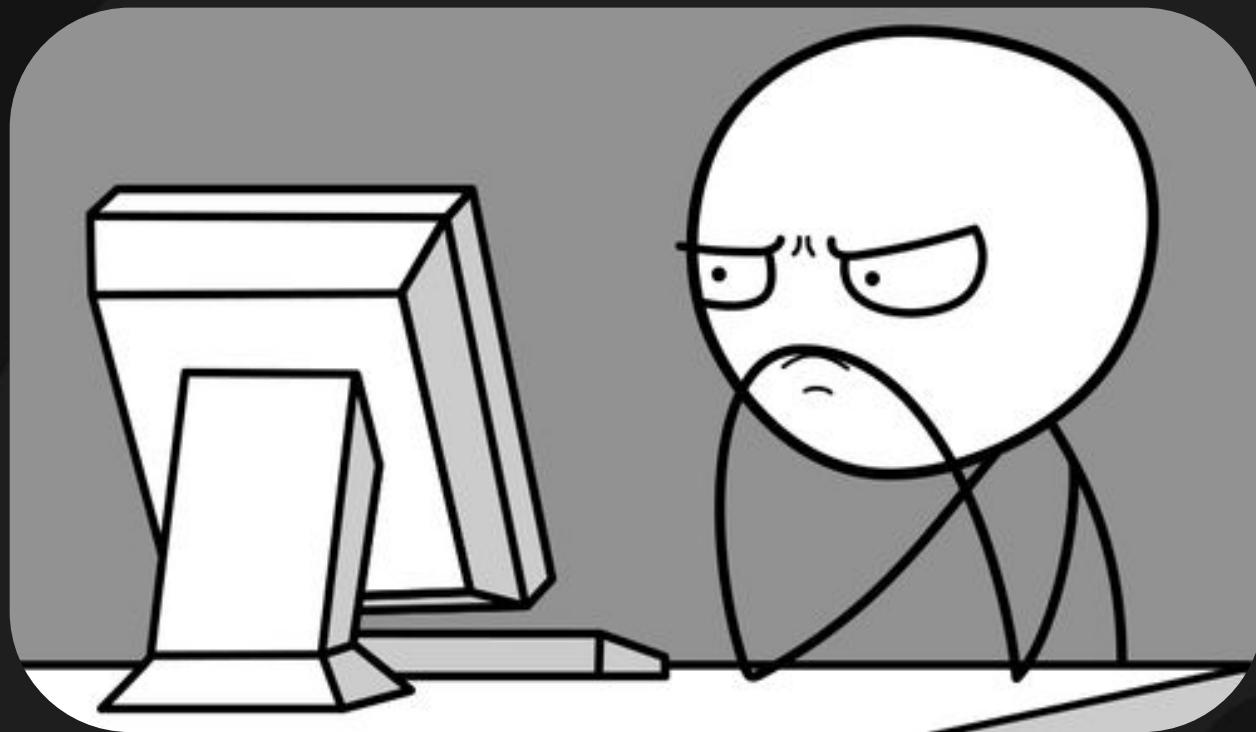
COMMUNITY

ECOSYSTEM

ROS - Robot Operating System

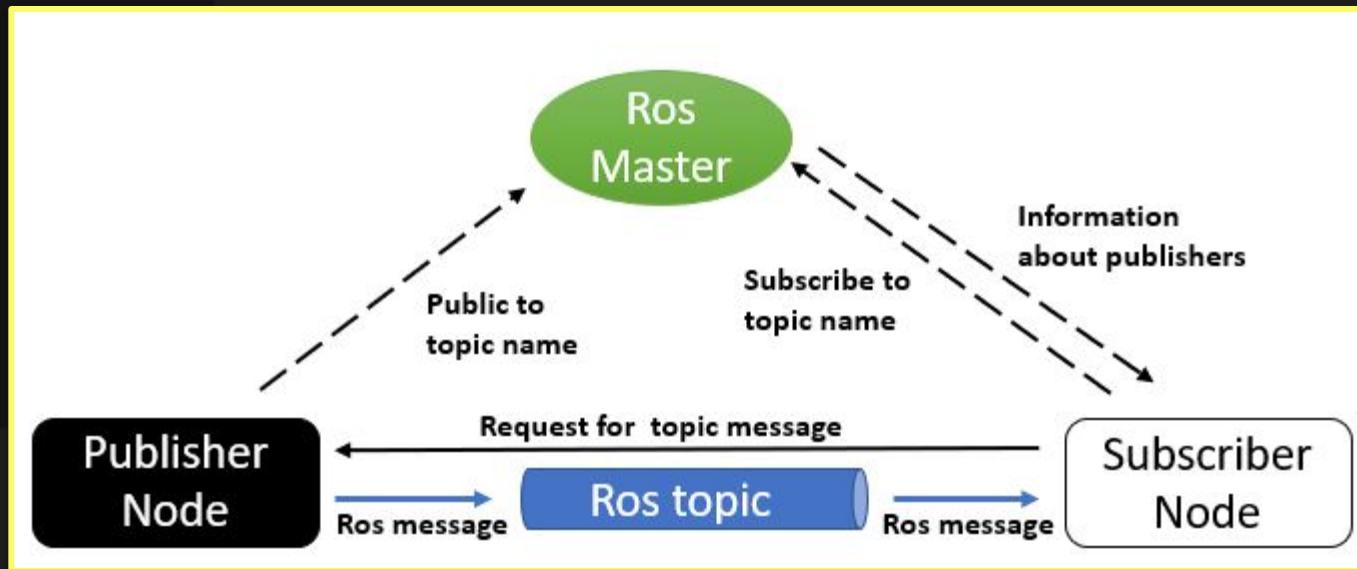
The Robot Operating System (ROS) is a set of software libraries and tools that help you build robot applications. From drivers to state-of-the-art algorithms, and with powerful developer tools, ROS has what you need for your next robotics project. And it's all open source.



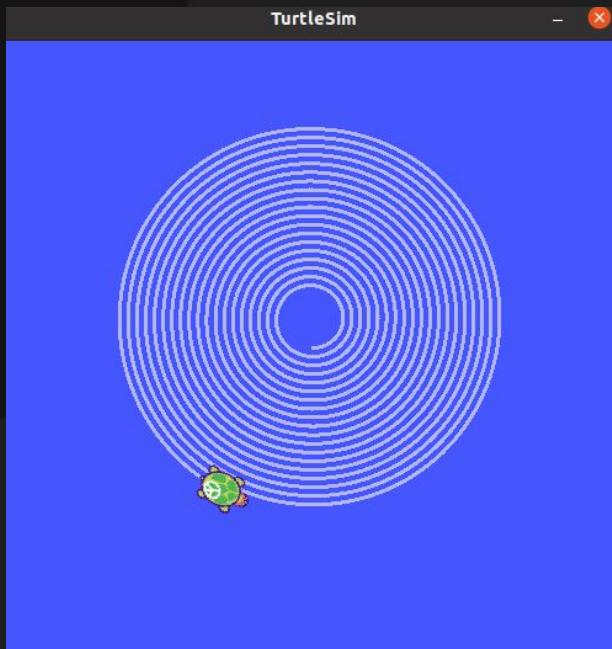


THE ELECTRONICS CLUB

How ROS Works



Turtlesim



```
roscore http://devanshu-Inspiro... devanshu@devanshu-Inspiron-5...  
rdevanshu@devanshu-Inspiron-5502:~$ rostopic list  
/rosout  
/rosout_agg  
/turtle1/cmd_vel  
/turtle1/color_sensor  
/turtle1/pose  
devanshu@devanshu-Inspiron-5502:~$ rosnode list  
/rosout  
/turtlesim
```

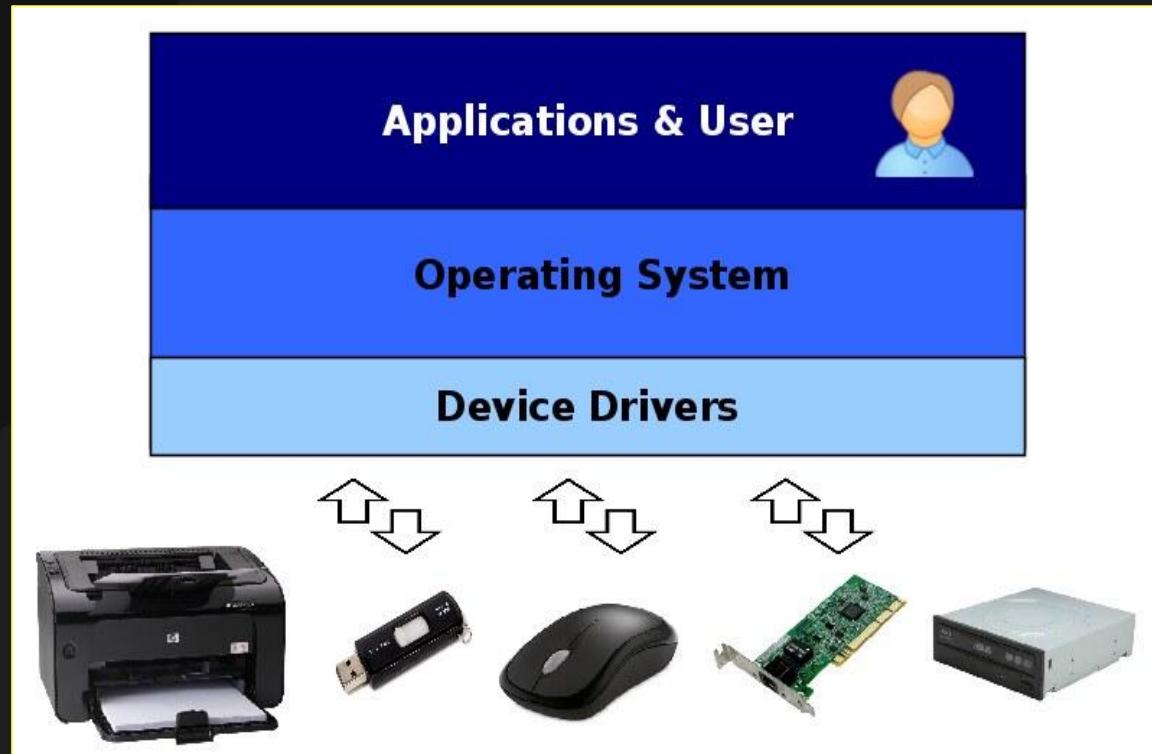


02

ROSSERIAL

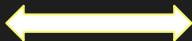
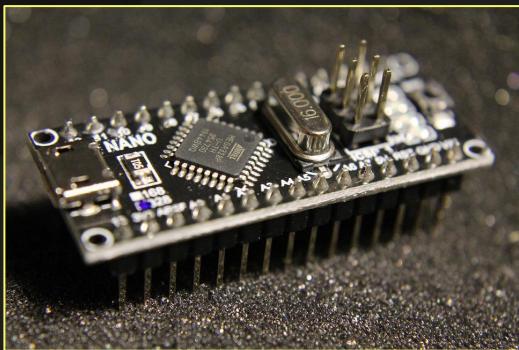


Drivers



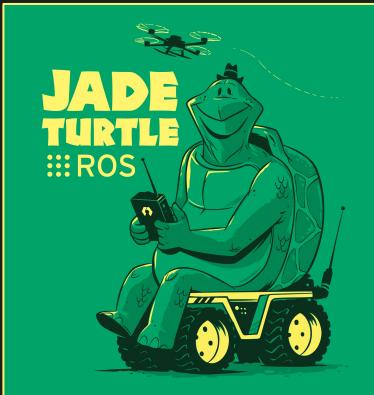
Why Rosserial

- Integration of Microcontrollers with ROS
- Adding new embedded hardware
- Communication between new hardware and ROS
- Without Rosserial: write the hardware drivers.

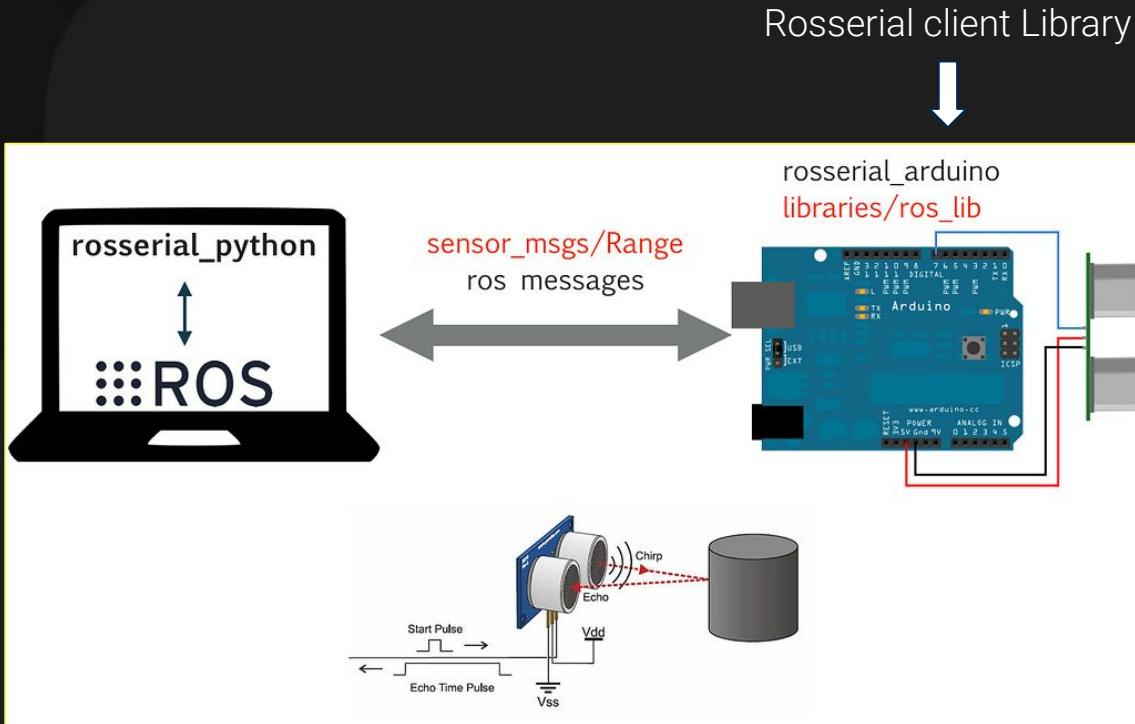


What is Rosserial

- New hardware can directly talk to ROS system.
- No need of custom drivers
- ROS wiki definition:
 - Rosserial is a protocol for wrapping standard ROS serialized messages and multiplexing multiple topics and services over a character device such as serial port.



Rosserial example



THANK YOU!

