Writing Tests

ROS has a framework for running tests, called rostest.

Setting Stuff Up

The pieces needed for a test is:

1. the node to test (also known as UUT or Unit Under Test)
2. a file with tests (also known as the test or testbench)
3. a .test file that launches the UUT and testbench

Example CMakeLists.txt entry:

```cmake
add_rostest_gtest(test_serial_subscriber
    serial_subscriber.test
    test_serial_subscriber.cpp)
add_dependencies(test_serial_subscriber serial_subscriber_example)
target_link_libraries(test_serial_subscriber serial test_tools
    ${catkin_LIBRARIES} ${GTEST_LIBRARIES})
```

Compiling and Running

To compile all tests:

```bash
rsmake tests
```

To run all tests:

```bash
rsmake run_tests
```

To run a single test:

```bash
rotest robosub <test>
```