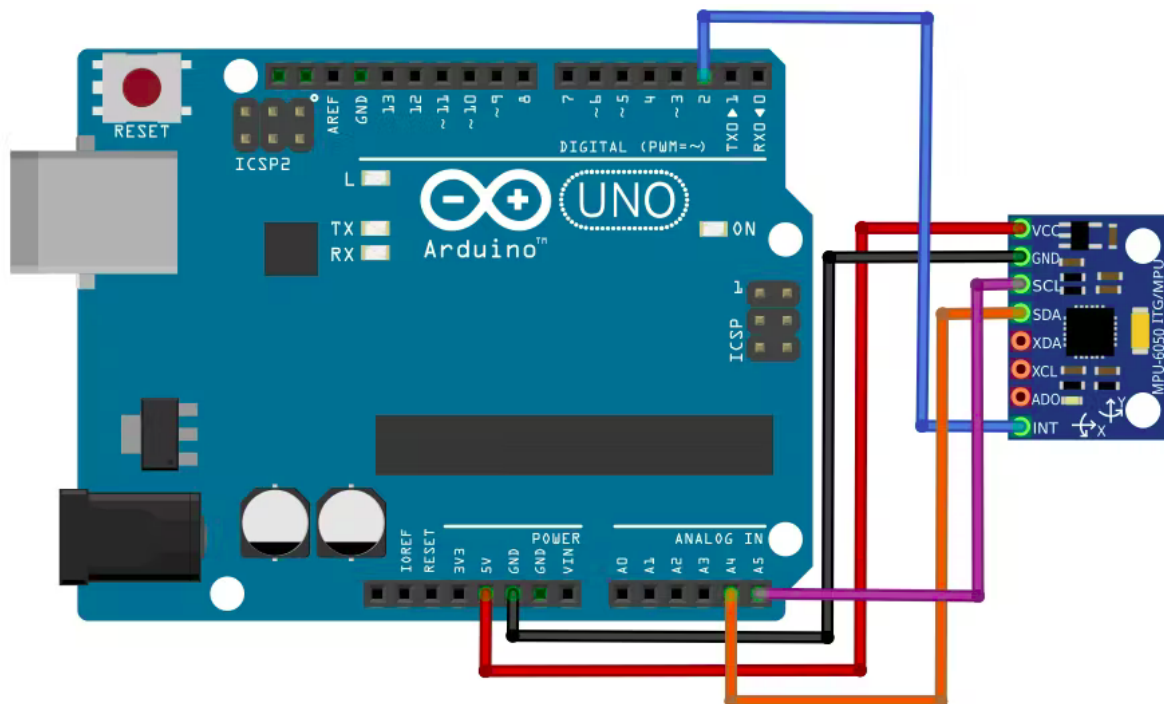


Wire connection



Package installed for Arduino

<https://github.com/jrowberg/i2cdevlib>

Error for Arduino code

I2Cdev was not found correctly, the downloaded file is invalid.

Solve by: extract the i2cdev-master folder, copy the 12cdev and MPU6050 folders to Arduino/libraries in your Arduino path

Error

Connection failed?

Solved by:

Make the VCC on 3.3 instead of 5V and make sure of another connections

Apply in ROS

[fsteinhardt/mpu6050_serial_to_imu \(github.com\)](https://github.com/fsteinhardt/mpu6050_serial_to_imu)

sudo apt-get install ros-noetic-rosserial

sudo apt-get install ros-noetic-rviz

sudo apt-get install ros-noetic-rviz-imu-plugin

sudo apt-get install ros-noetic-nodelet

sudo apt-get install ros-noetic-dynamic-reconfigure

Baudrate in Arduino file and cpp file must be the same

Port in launch file must be changed (line 4) and in node.cpp file

```
demo.launch
~/catkin_ws/src/mpu6050_serial_to_imu/launch
Save

1 <launch>
2
3 <node pkg="mpu6050_serial_to_imu" type="mpu6050_serial_to_imu_node" name="mpu6050_serial_to_imu_node" required="true">
4   <param name="port" value="/dev/ttyACM0"/>
5   <param name="baudrate" value="115200" value="imu_baud"/>
```

Make sure node file is executable file

Make Sure you have ros-lib in your Arduino IDE

```
1 cd ~catkin_ws/src/  
2 git clone https://github.com/fsteinhardt/mpu6050_serial_to_imu  
3 git clone https://github.com/ccny-ros-pkg/imu_tools  
4  
5 sudo apt-get install ros-indigo-serial  
6  
7 cd ~catkin_ws/  
8 catkin_make --pkg mpu6050_serial_to_imu imu_tools  
9 source ~/.bashrc
```

Run the following command to convert the value of the mpu6050 to a ROS /imu message, and see the change in the orientation of the mpu6050 through rviz.

```
1 roslaunch mpu6050_serial_to_imu demo.launch
```

rostopic echo /imu/data