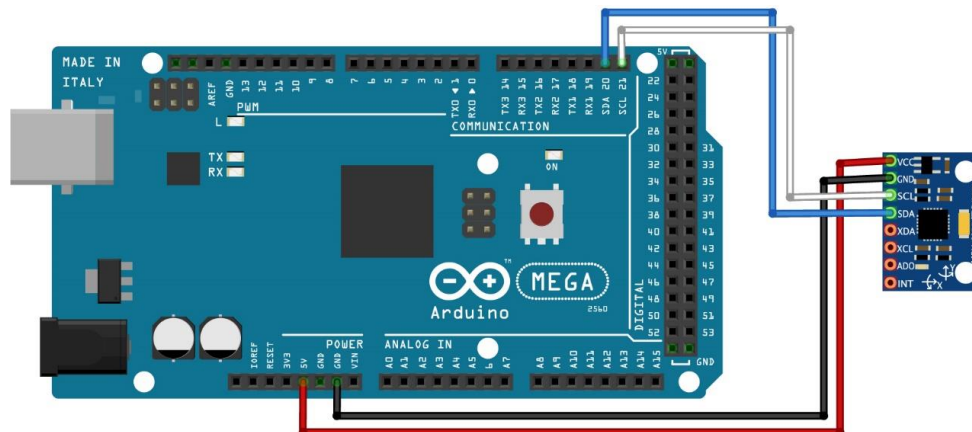
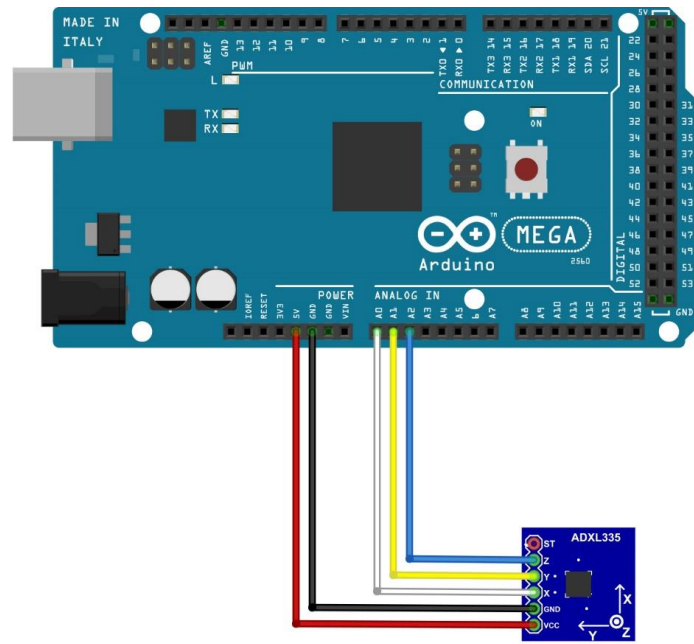


**Supplementary Material to “On mechanical vibration analysis of a multi degree of freedom system based on arduino and MEMS accelerometers”**

**Appendix :** The linkage of the MPU-6050 and the ADXL-335 with Arduino are shown in Figures 14 and 15, respectively. The connection of the MPU-6050 is done via the I2C protocol, which uses the SCA and SCL pins of the MPU to connect the corresponding pins in the Arduino board. For the ADXL-335 the connection with the Arduino board is done by means of five pins: three of them send the signals measured in the three cartesian coordinates  $x$ ,  $y$  and  $z$ ; and the other two are the 5 V and the ground connection which are responsible for power supply. They are connected in the corresponding pins in the Arduino board, which are the VCC, GND, and analog pins.



**Figure 14:** Linkage of the MPU-6050 accelerometer with the Arduino board.



**Figure 15:** Linkage of the ADXL-335 accelerometer with the Arduino board.