

## A couple of comments about the Code

1. Ensure that you have all libraries installed to run the code
2. If you have multiple SDA/SCL connected make sure to check the respective libraries for support. For example if you use the pins SDA1 and SCL1 you have to use "Wire1" in the arduino code. Not every library supports Wire1, Wire2,...  
So you will have to make changes to the library to get everything to work

### How the code is built:

The code has a main .ino file which is basically the main program. I have added multiple header files to make everything more clean:

- globals: Here are some global variables, constants and macros that you can change to your needs (for example servo settings, measurements,...)
- functions: Here are some functions for my mp3 module, NRF and compass module. Basically everything that is not related to servos or movement
- myBody: For the servos and movement of the robot I have decided to do an object oriented approach. The "MyBody" class controls the entire robot body, coordinates leg movements, selects the gait type, and regulates the walking behavior.
- myLeg: Declares the MyLeg class, which represents a single robot leg. It includes methods for stepping, position control, and updating the servos at the joints.
- myServoMotor: Declares the ServoMotor class, which encapsulates control of a servo motor, including motion interpolation, limits, correction factors, and direct actuation of the motor.

### How the code generally works:

To understand how the code operates generally it is important to understand how the main .ino file operates. This picture can help you with this:

