

Tutorial / Exercise – Unit Testing

In this exercise you will create a project and add some simple unit tests.

1. Create a new project and add the following code. Call the testAdd function from main
2. The getAngleDifference() function is supposed to return the smallest difference between two the two angles which are passed to it in degrees
3. Complete the testAdd() function to correctly test the function works for angles in any range.
4. You should find that there are problems with the function if large angles are input
5. Fix any errors your unit tests detect

```
float getAngleDifference(float a, float b)
{
    float c = a - b;
    if (c > 180)
    {
        c -= 360;
    }
    if (c < -180)
    {
        c += 360;
    }
    return c;
}

void testAdd()
{
    assert(getAngleDifference(0, 0) == 0);
    assert(getAngleDifference(90,0) == 90);
    assert(getAngleDifference(0, 90) == -90);
    //add all the tests that are needed to test the functionality of the code
}
```