|  |  |  |  |
| --- | --- | --- | --- |
| Project Name: | LED globe | Test Designed by: | Jonathan |
| Module Name: | ImageConversion.py | Tests last executed: |  |

Test Cases derived from ImageConversionTestFrames.doc to be added ~ ~ ~

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Test ID | Test Name | Test Description | Test Cases (inputs) | Test Steps | Expected Results | Acutal Results | Status |
| 1 | test\_thumbNail\_normal() | Load image with valid file format  and non‐empty | img = Test.jpg |  |  |  |  |
| 2 | test\_thumbNail\_invaldFormat() | Load file with invalid image file  format | img = Test.pdf |  |  |  |  |
| 3 | test\_thumbNail\_emptyImg() | Load a created file with 0 width  and 0 height. | img = empty |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 4 | test\_calcHori\_invalidW() | Test invalid image width with valid  height | w=‐5, h=10 |  |  |  |  |
| 5 | test\_calcHori\_normal() | Test normal case, valid width and  height | w=100, h=200 |  |  |  |  |
| 6 | test\_calcHori\_largeW() | Test very large width, where  width/(h/48) < 250 | w=3000, h=1000 |  |  |  |  |
| 7 | test\_calcHori\_invalidH() | Test invalid height with valid width | w=48, h=0 |  |  |  |  |
| 8 | test\_calcHori\_largeH() | Test very large height with valid  width | w=1500, h=4000 |  |  |  |  |
| 9 | test\_calcHori\_spc() | Test a width and height, where  width/(h/48) >= 250 | w=500, h=3000 |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 10 | test\_black\_and\_white\_normal() | Load image with valid file format  and non‐empty | img = Test.jpg |  |  |  |  |
| 11 | test\_black\_and\_white\_invalidFormat() | Load file with invalid image file  format | img = Test.pdf |  |  |  |  |
| 12 | test\_black\_and\_white\_emptyImg() | Load a created file with 0 width  and 0 height. | img = empty |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 13 | test\_bitArray\_normal() | Load image with valid file format  and non‐empty | img = Test.jpg |  |  |  |  |
| 14 | test\_bitArray\_invalidFormat() | Load file with invalid image file  format | img = Test.pdf |  |  |  |  |
| 15 | test\_bitArray\_emptyImg() | Load a created file with 0 width  and 0 height. | img = empty |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 16 | test\_printBitArray\_empty() | Input empty matrix | matrix = empty |  |  |  |  |
| 17 | test\_printBitArray\_valid0() | Input non empty matrix filled with  0s | matrix = [0][0], [0][0] |  |  |  |  |
| 18 | test\_printBitArray\_valid1() | Input non empty matrix filled with  1s | matrix = [1][1][1][1], [1][1][1][1] |  |  |  |  |
| 19 | test\_printBitArray\_largeRow() | Input non empty matrix with  number of rows > 49 filled with 0s | matrix = 49 rows filled with 0s |  |  |  |  |
| 20 | test\_printBitArray\_largeCol() | Input non empty matrix with  number of columns > 251 filled with 1s | matrix = 251 columns filled with 1s |  |  |  |  |
| 21 | test\_printBitArray\_invalidVal() | Input non empty matrix filled with  integers other than 0 or 1 | matrix = [2][2], [3][4] |  |  |  |  |
| 22 | test\_printBitArray\_empty() | Input non empty matrix filled with  not integers | matrix = [h][i] |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 23 | test\_signalInterval\_invalidW() | Input invalid width | w=‐5 |  |  |  |  |
| 24 | test\_signalInterval\_normal() | Input nominal width | w=50 |  |  |  |  |
| 25 | test\_signalInterval\_GmaxW() | Input width >= 250 | w=300 |  |  |  |  |

MotorStub.py

