

Digital Angle Gauge Test Procedure

To test the implementation of digital angle gauge, follow the below steps:

1. Initially the user will be prompted to provide input angle of his/her choice, provide the angle value in degrees. This must be between 0 to 180 degrees.
2. Later, we need to calibrate for zero degrees reference of the digital angle gauge by touching the capacitive slider. Keep the digital gauge at your convenience and touch the capacitive slider.
3. Now, the tilt angle computation begins and accordingly led is illuminated. If the current angle is lesser than input angle, we observe Red led illuminated else, if the current angle is greater than input angle, we observe Blue led illuminated and if the current angle matches that of input angle, we observe Green led illuminated.
4. Now, adjust the angle of gauge until you observe green led being lit.
5. Now, using the android mobile application "Angle Meter", set an angle equal to that of input angle.
6. Hold the board at same angle along the protractor displayed on screen.
7. Verify that the Tilt angle displayed on serial terminal matches that of protractor angle, which in turn is equal to input angle provided by user. This authenticates the value of angle provided by Tilt measurement.