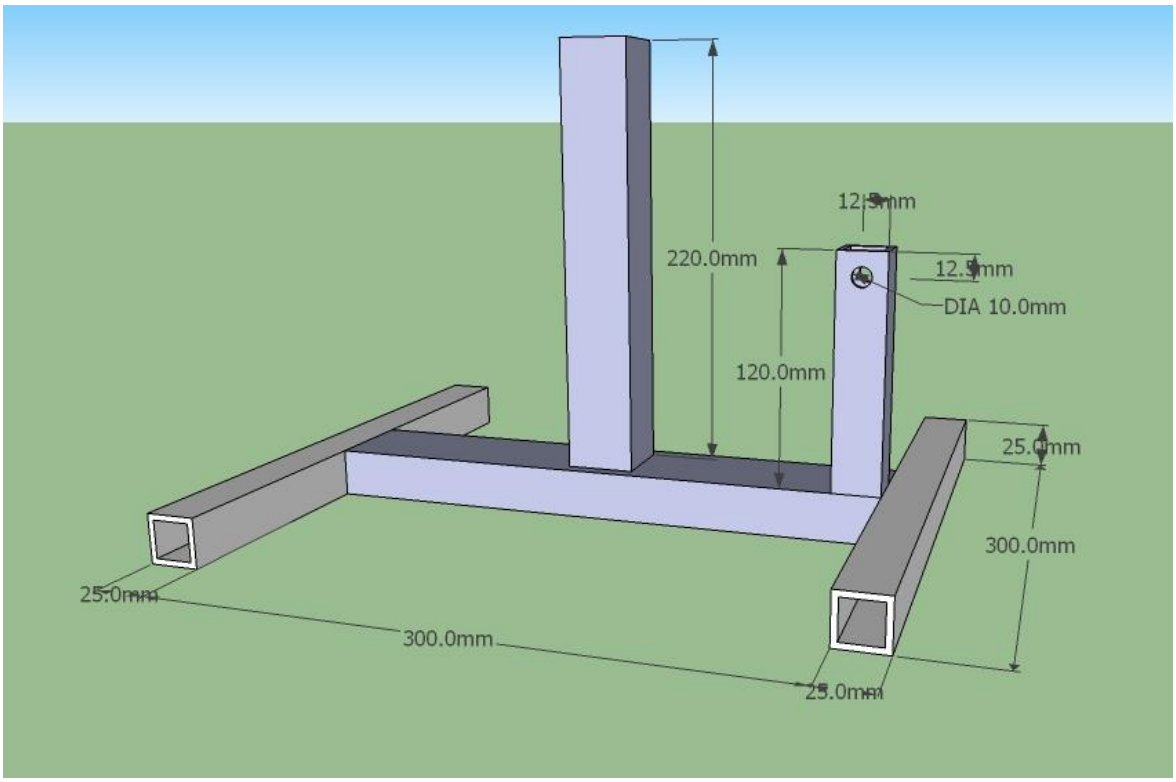
Motor Bike Stand

Stage 5 Metal

Mild Steel

1. The first componant of the project you will be constructing is the base. This is a CAD drawing of what it needs to look like. Accuracy is important at this stage of the project to ensure that the motor bike stand works effectivly as a finished product.

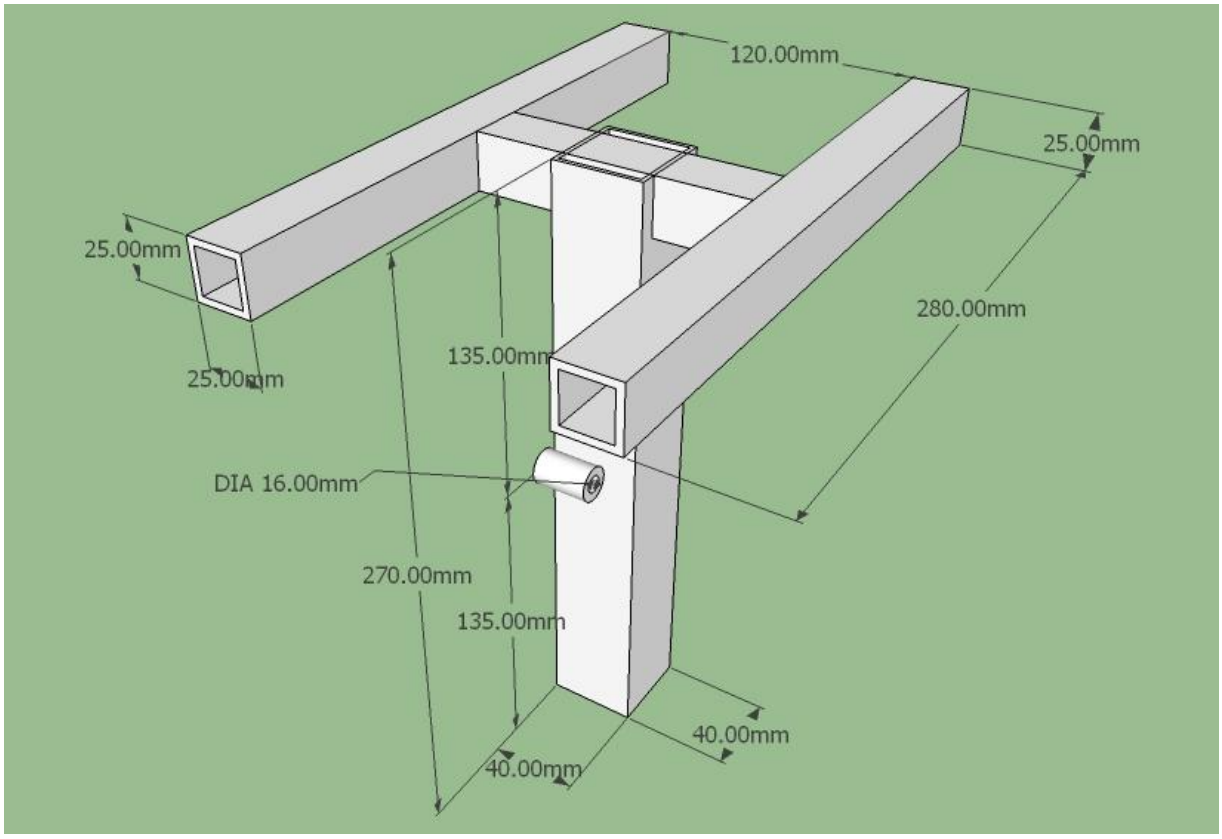


2. cut the required stock to build this component, you will need
    a. 2 @ 25 x 25 x 300 mild steel SHS
    b. 1 @ 25 x 50 x 300 mild steel RHS
    c. 1 @ 35 x 35 x 220 mild steel SHS
    d. 1 @ 25 x 25 x 120 mild steel SHS

3. Ensure that all components are marked out correctly in order to assist in accurately assembling and welding techniques.
    a. Lay out the base to look like a H
    b. Weld, then grind if required

4. Once all marking out is complete position the vertical bars then tack weld in place and check for square. Tap the bars with a hammer to square up then finish weld in place.

5. The second component you are required to build is the top that will sit on your base.



6. You will need
    a. 1 @ 40 x 40 x 270 mild steel SHS
    b. 1 @ 25 x 25 x 120 mild steel SHS
    c. 2 @ 25 x 25 x 280 mild steel SHS

7. Mark out and cut a section 25 x 25 to take the cross bar.

8. Position the cross bar and in the middle and weld in place

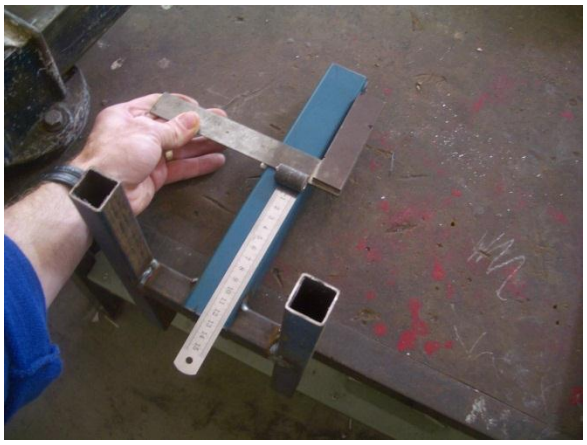
9. Mark the side bars in the centre and position

10. Tack weld in position and check for square and parallel

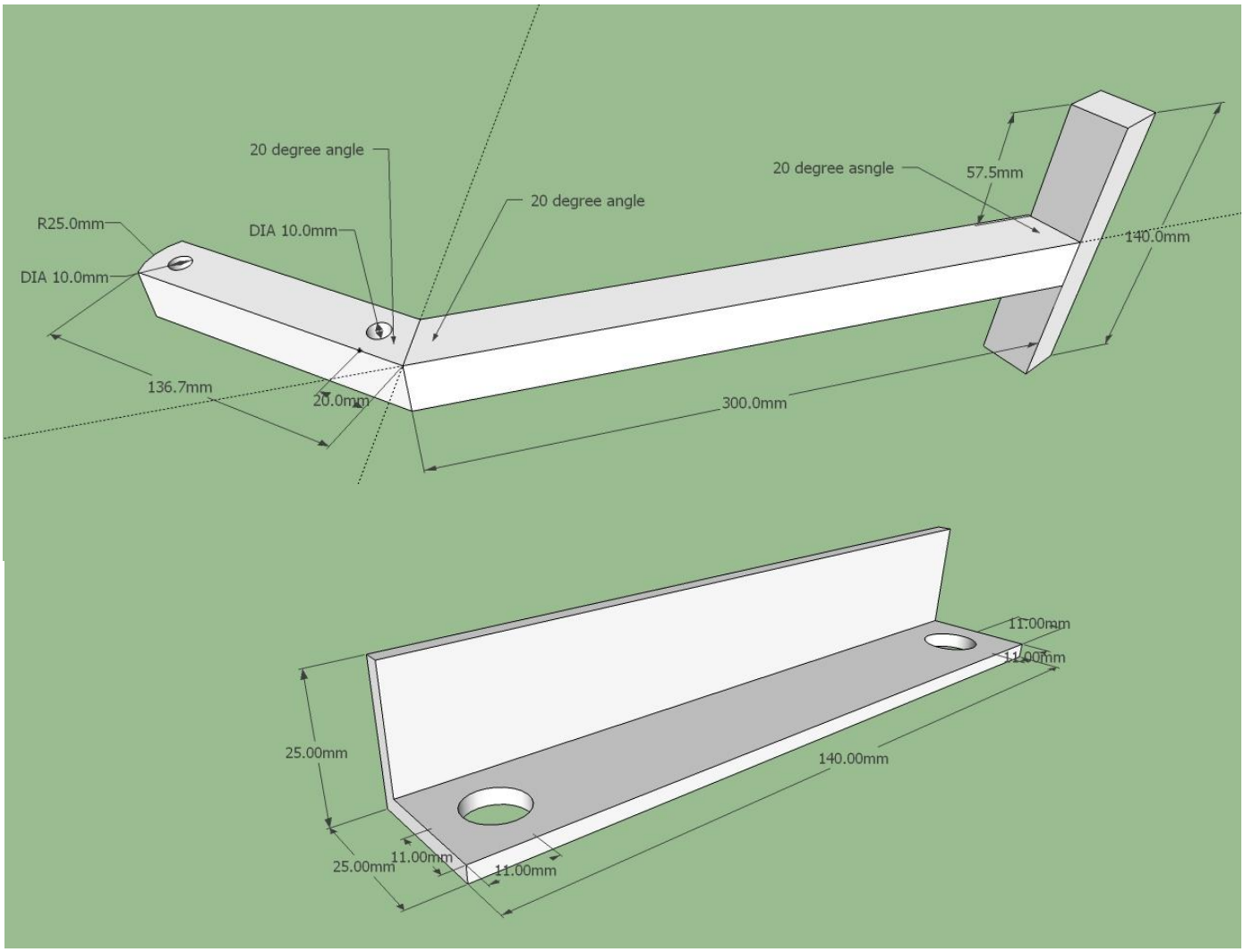
11. Weld in place and grid if required

12. Cut a 16mm solid bar to 25mm long then centre drill and ream out to 10mm centre.

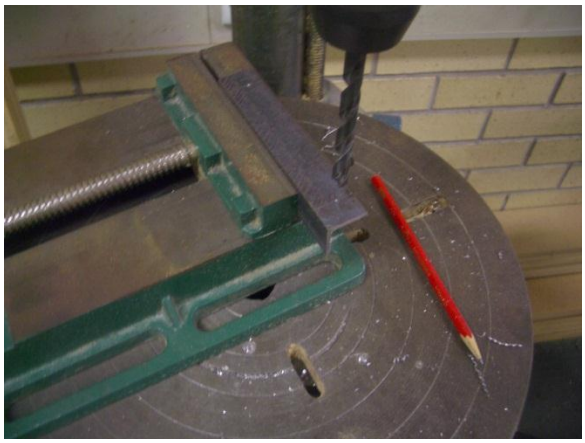
13. Position the bar in the middle of the vertical and weld in place.



14. The third component to make is the jack press and free arm. You will require
    a. 2 @ 25 x 25 x 140 mild steel SHS
    b. 1 @ 25 x 25 x 300 mild steel SHS
    c. 1 @ 25 x 25 x 140 mild steel angle



15. Cut all stock to length, mark and drill holes to 10mm.



16. Tack weld all components in place then do a practice assembly to ensure that the jack works correctly and all components function as they should

17. If required make the appropriate adjustments and re-test the function, then finish weld all parts of the jack and grind the required joints. Bolt together and test.