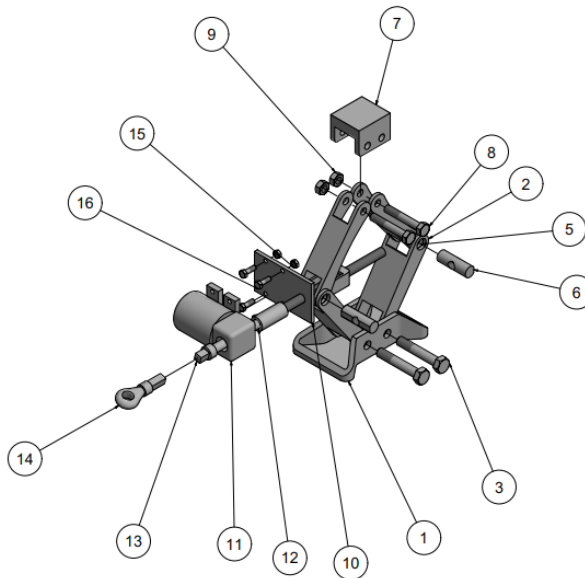


Project 1

Car Jack Assembly

In this project, you will create components for a Car Jack assembly and then assemble them, refer to Figure P1-1. An exploded view of the assembly is shown in Figure P1-2. You need to create all the components as separate part files. The views and dimensions of the components are shown in Figures P1-3 through P1-18. **(Expected time: 3 hr 30 min)**

You can also download the model files for your reference from www.cadcim.com. To download the files, use the following path: *Textbooks > CAD/CAM > SOLIDWORKS > SOLIDWORKS 2021 for Designers > Projects for Free Download > Project 1*



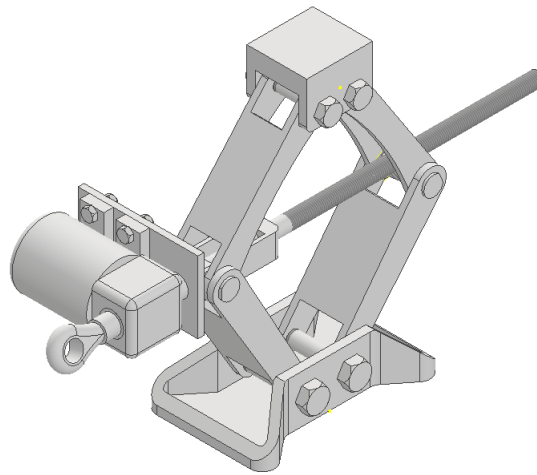
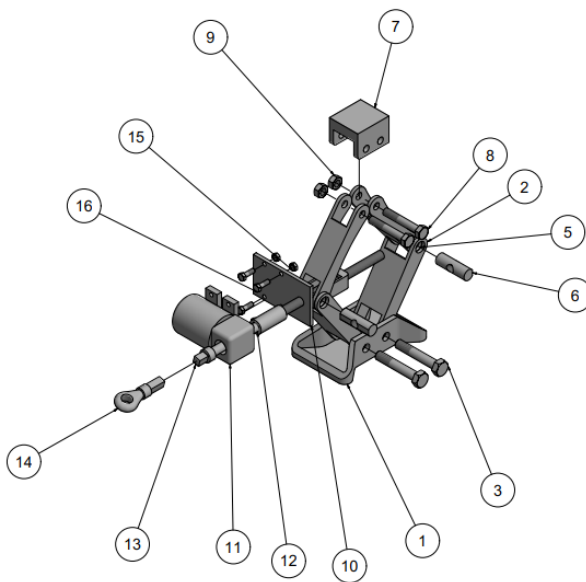


Figure P1-1 The Car Jack assembly



PARTS LIST		
ITEM	PART NUMBER	QTY
1	Jack Base	1
2	Jack Bottom leg	2
3	M12X1.75 Hex Bolt	2
4	M12X1.75 Nut	2
5	Jack upper leg	2
6	Jack Pin with thread	2
7	Jack Cap	1
8	M10X1.5 Hex Bolt	2
9	M10X1.5 Nut	2
10	Screw Base	1
11	Jack Motor Case	1
12	Jack Rotor	1
13	Jack Screw	1
14	Manual Screw	1
15	M6X1.0 Nut	4
16	M6X1.0 Hex Bolt	4

Figure P1-2 The exploded view of Car Jack assembly

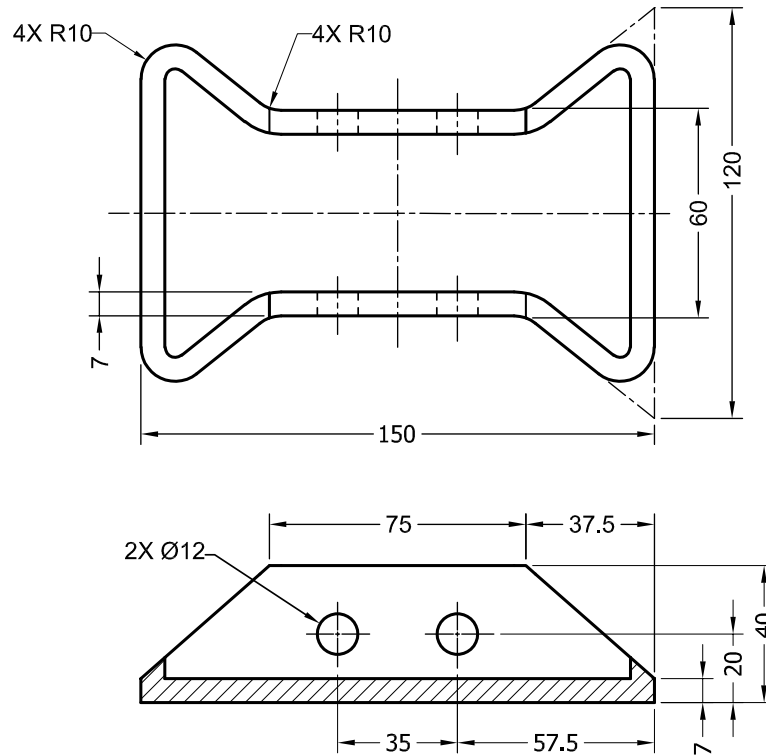


Figure P1-3 Orthographic views and dimensions of Jack Base

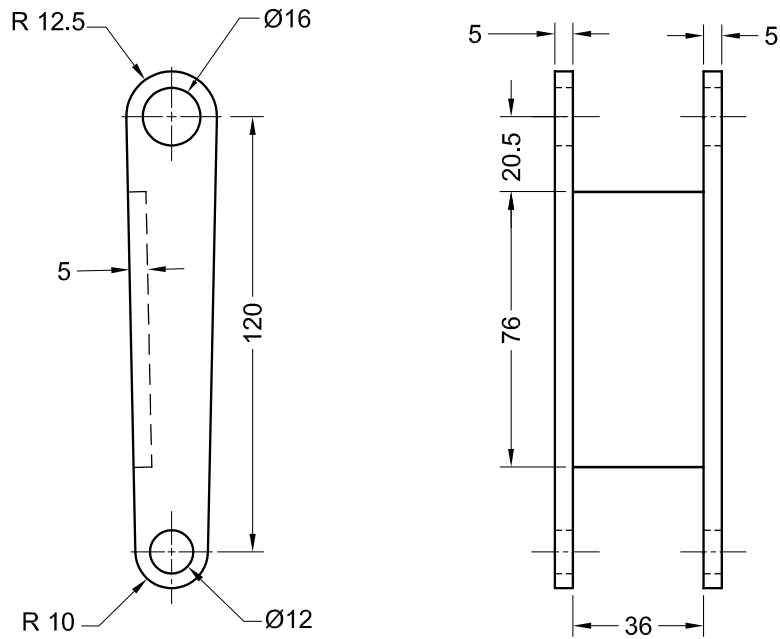


Figure P1-4 Orthographic views and dimensions of Jack Bottom Leg

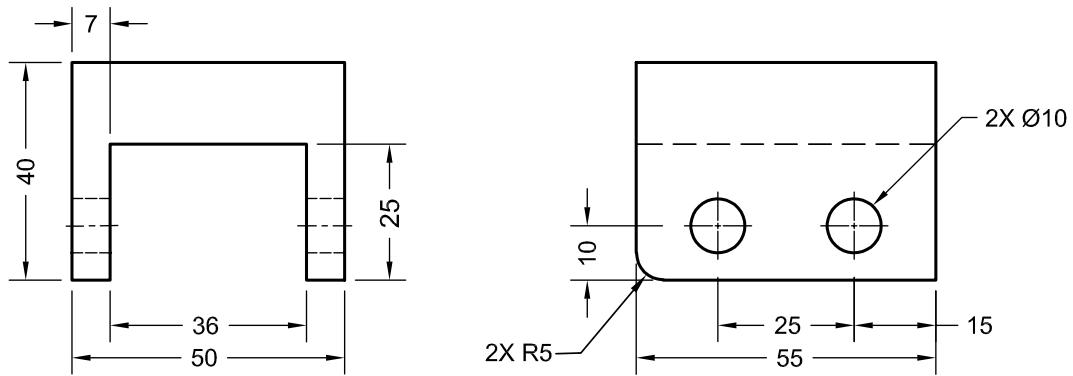


Figure P1-5 Orthographic views and dimensions of Jack Cap

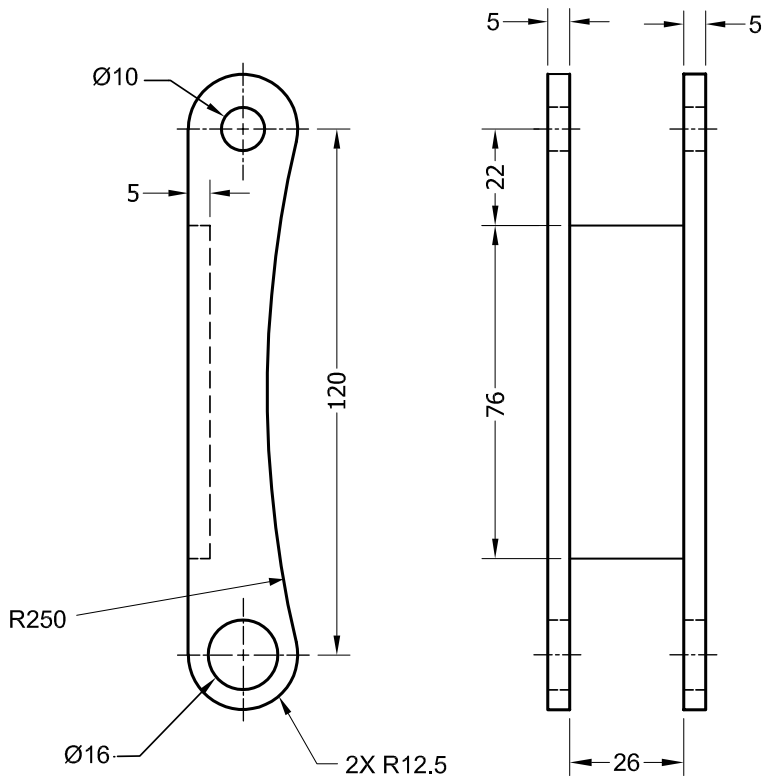


Figure P1-6 Orthographic views and dimensions of Jack Upper Leg

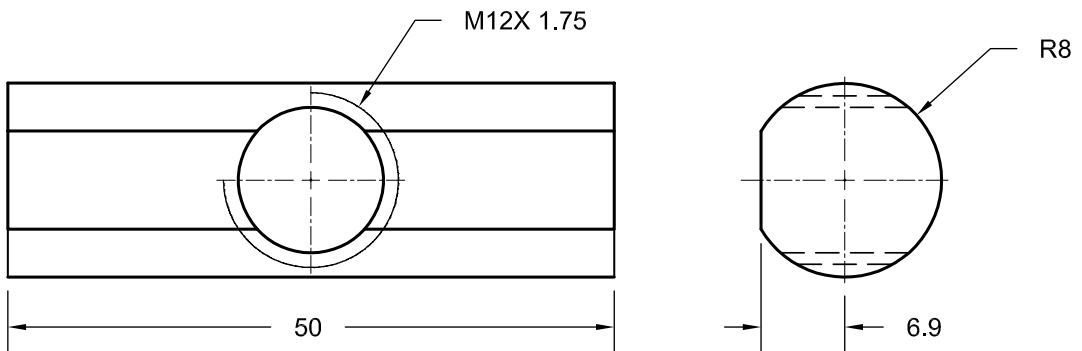


Figure P1-7 Orthographic views and dimensions of Jack Pin with thread

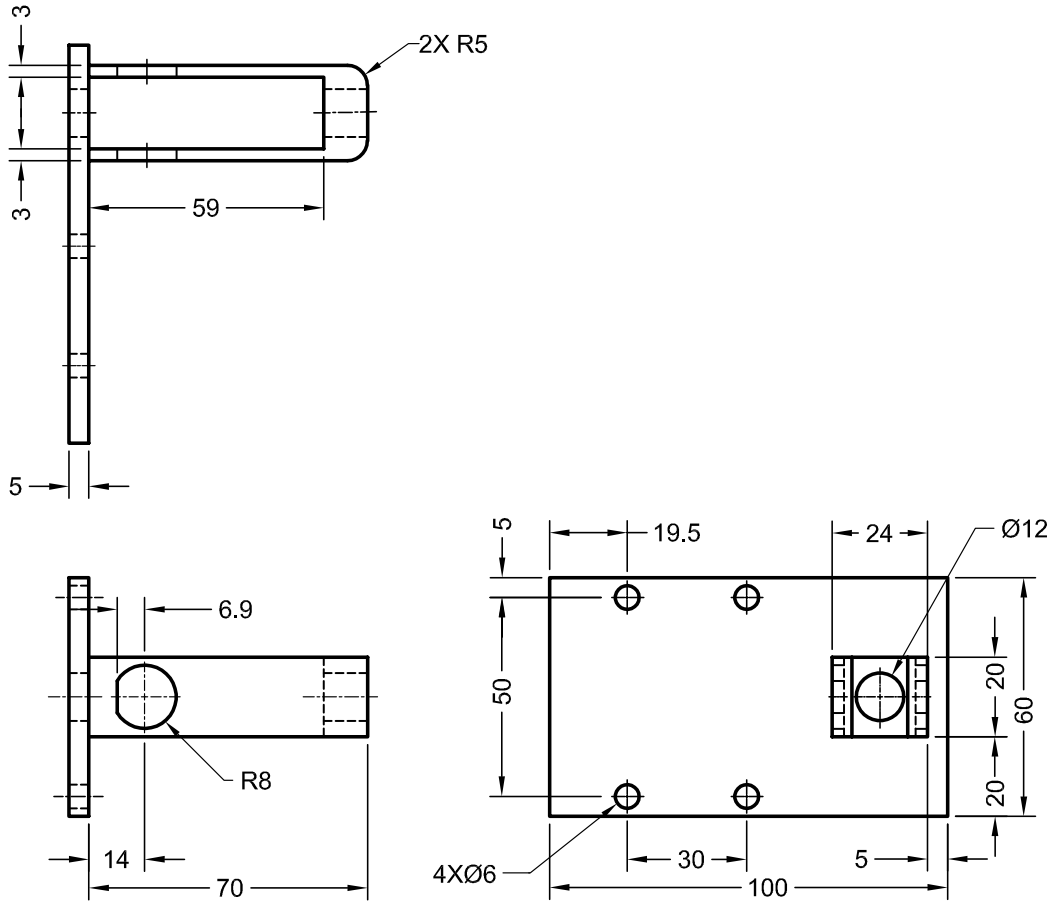
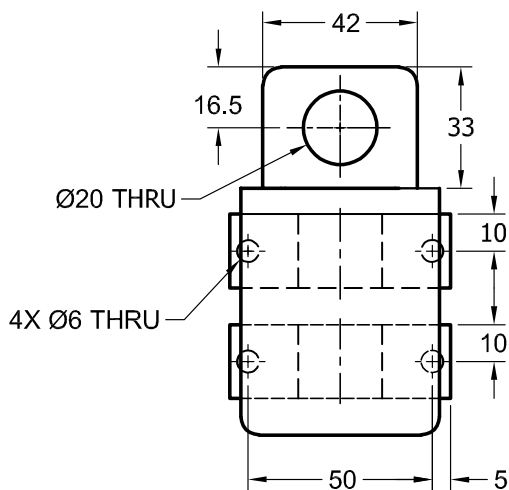


Figure P1-8 Orthographic views and dimensions of Screw Base



NOTE:
ALL ROUNDS, R5

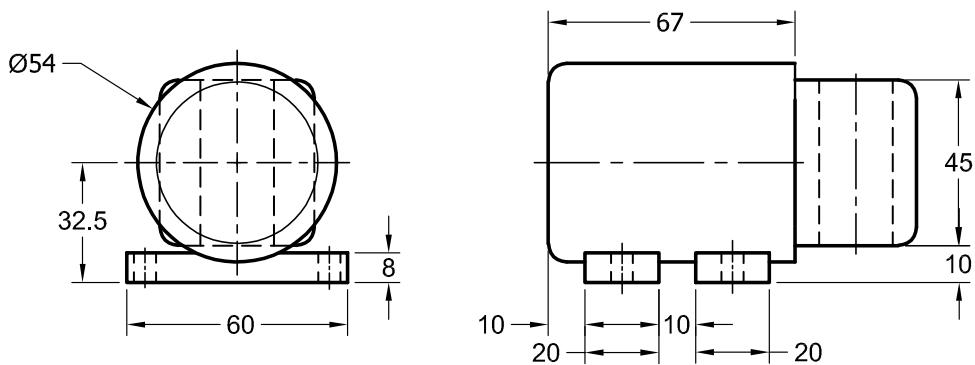


Figure P1-9 Orthographic views and dimensions of Jack Motor Case

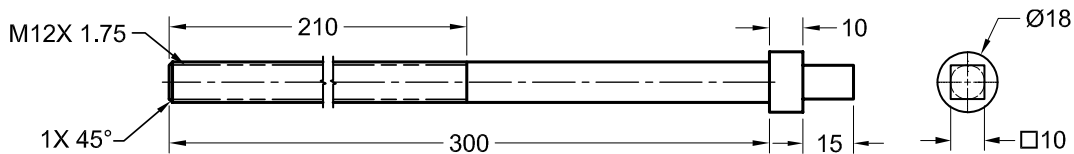


Figure P1-10 Orthographic views and dimensions of Jack Screw

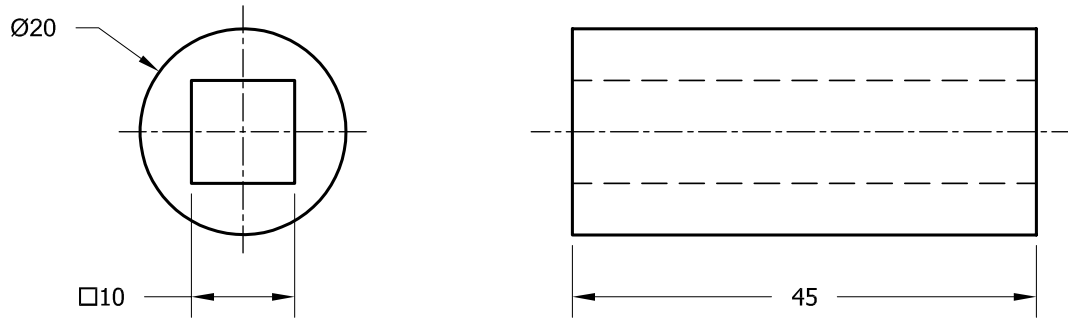


Figure P1-11 Orthographic views and dimensions of Jack Rotor

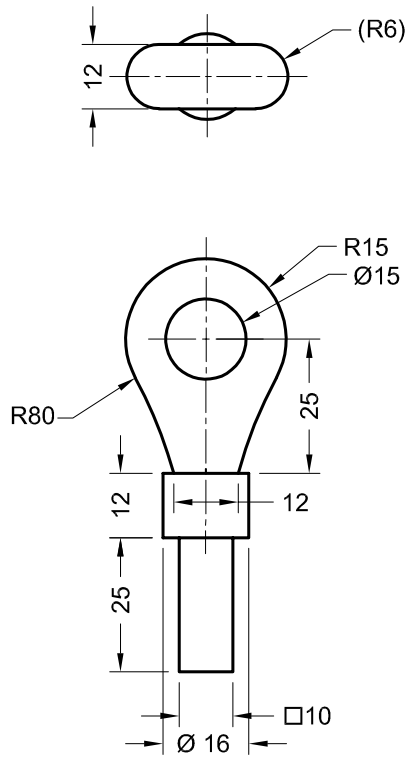


Figure P1-12 Orthographic views and dimensions of Manual Screw

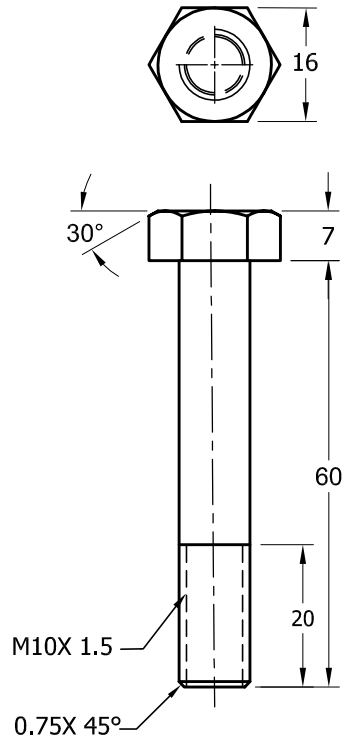


Figure P1-13 Orthographic views and dimensions of the M10X 1.5 bolt

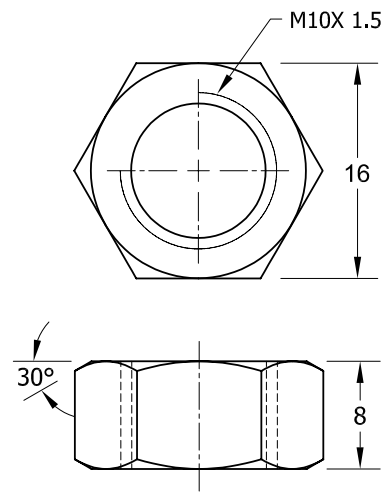


Figure P1-14 Orthographic views and dimensions of the M10X 1.5 nut

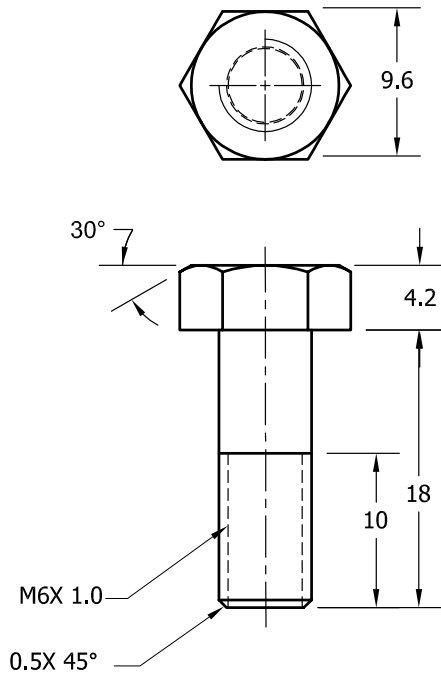


Figure P1-15 Orthographic views and dimensions of the M6X 1.0 bolt

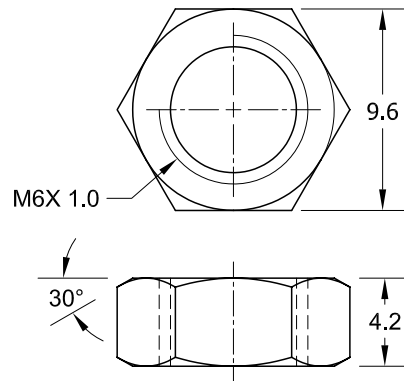


Figure P1-16 Orthographic views and dimensions of the M6X 1.0 nut

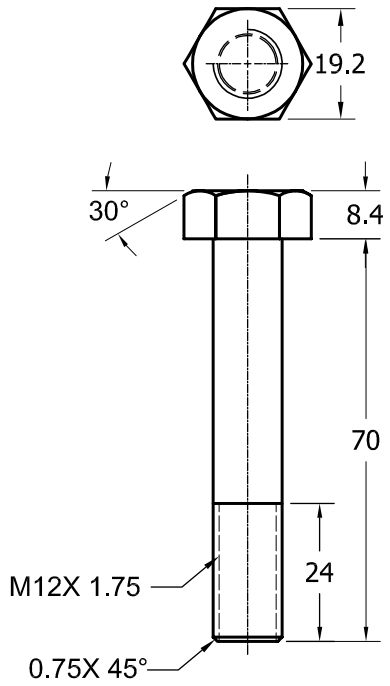


Figure P1-17 Orthographic views and dimensions of the M12X 1.75 bolt

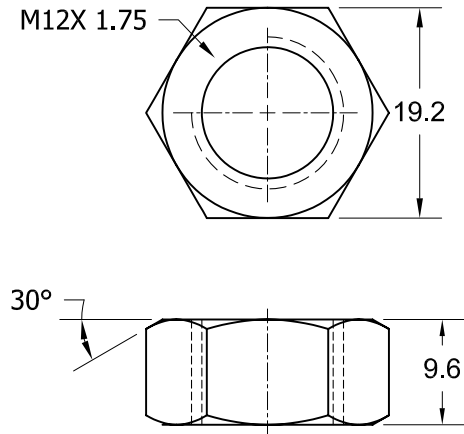


Figure P1-18 Orthographic views and dimensions of the M12X 1.75 nut

