

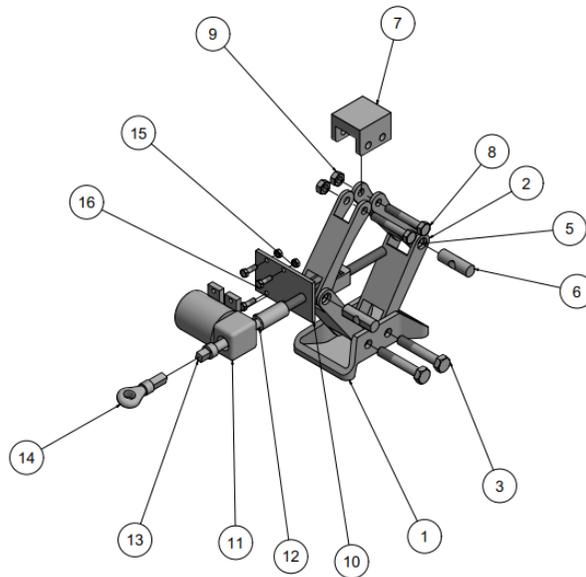
# Project 1

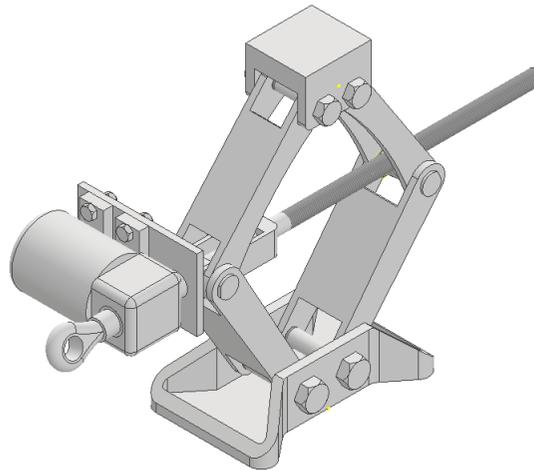
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## Car Jack Assembly

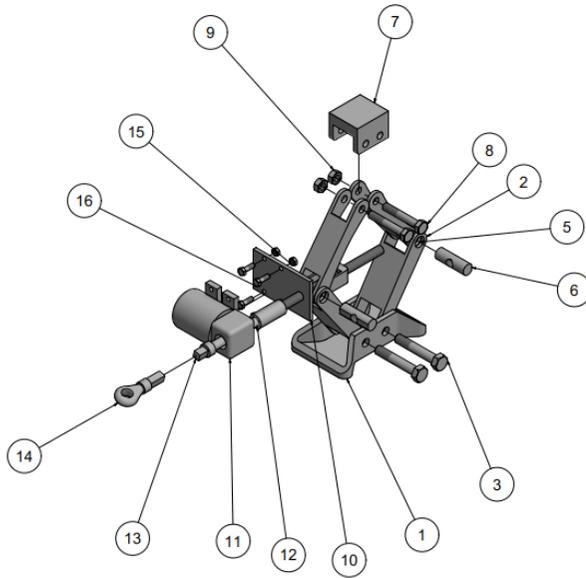
In this project, you will create components for a Car Jack assembly and then assemble them, refer to Figure P1-1. An exploded view of the assembly is shown in Figure P1-2. You need to create all the components as separate part files. The views and dimensions of the components are shown in Figures P1-3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

You can also download the model files for your reference from [www.cadcim.com](http://www.cadcim.com). To download the files, use the following path: *Textbooks > CAD/CAM > Autodesk Inventor > Autodesk Inventor Professional 2022 for Designers > Projects for Free Download > Project 1*



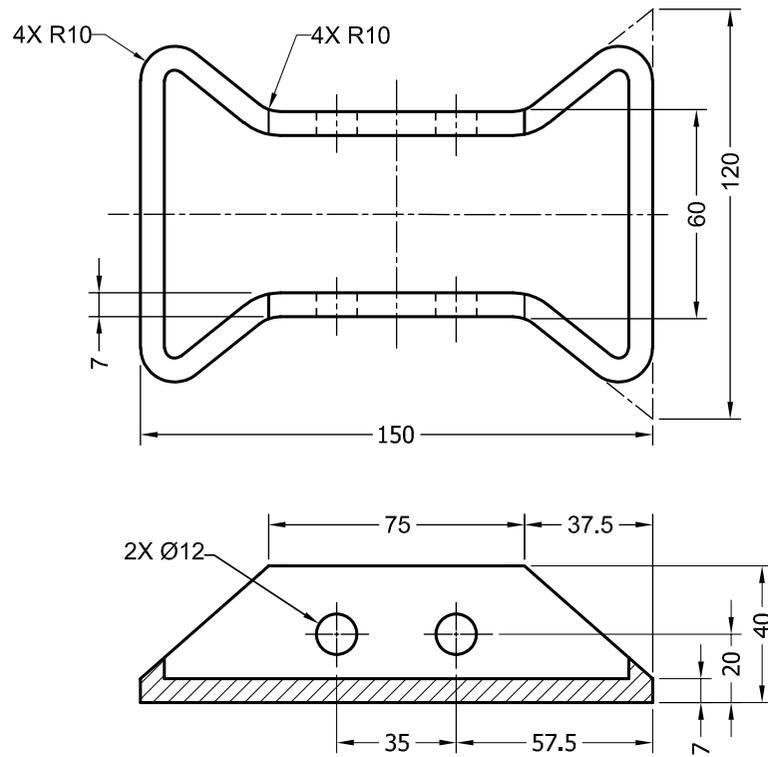


*Figure P1-1 The Car Jack assembly*



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*

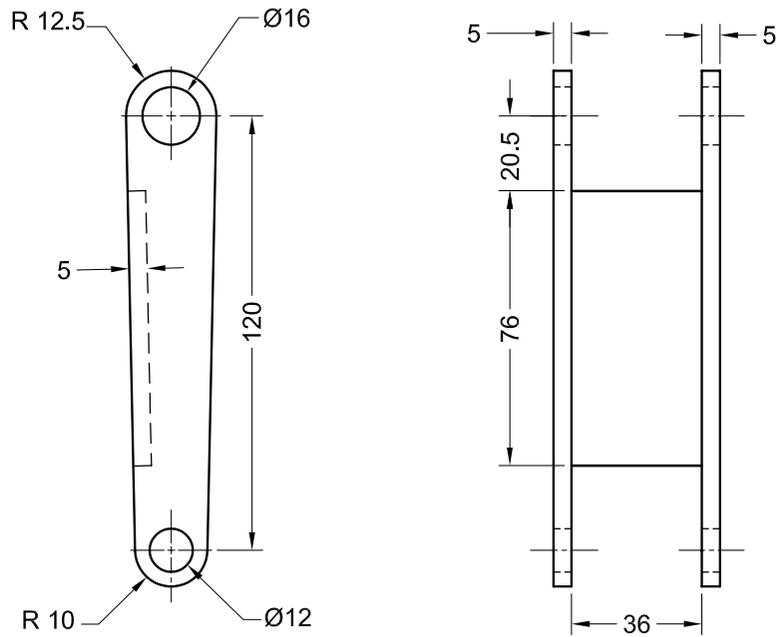


Figure P1-4 Orthographic views and dimensions of Jack Bottom Leg

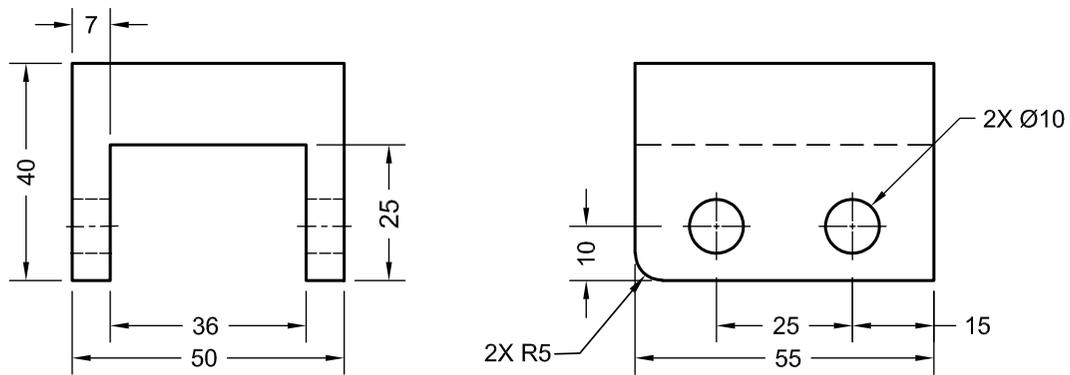
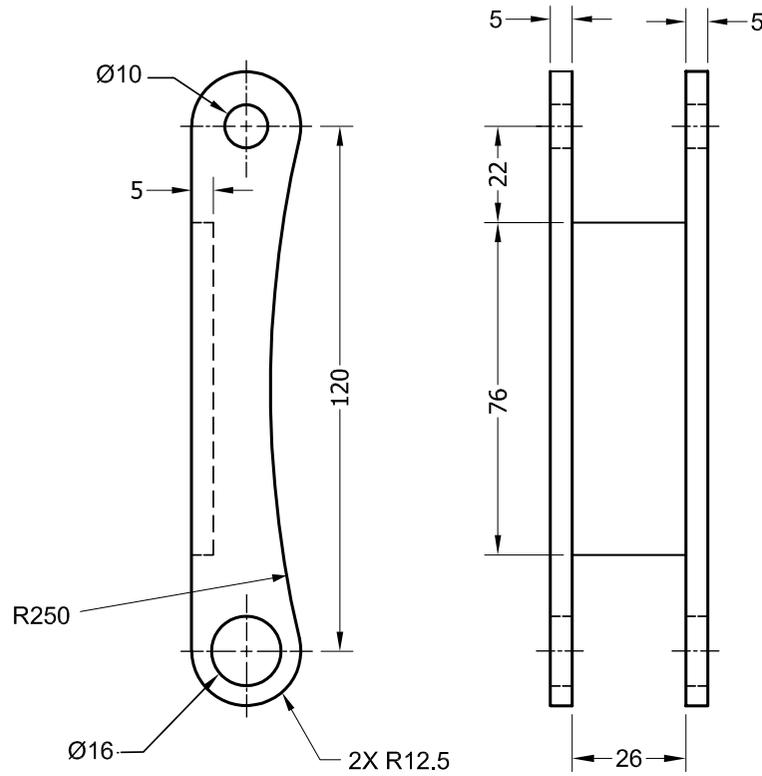
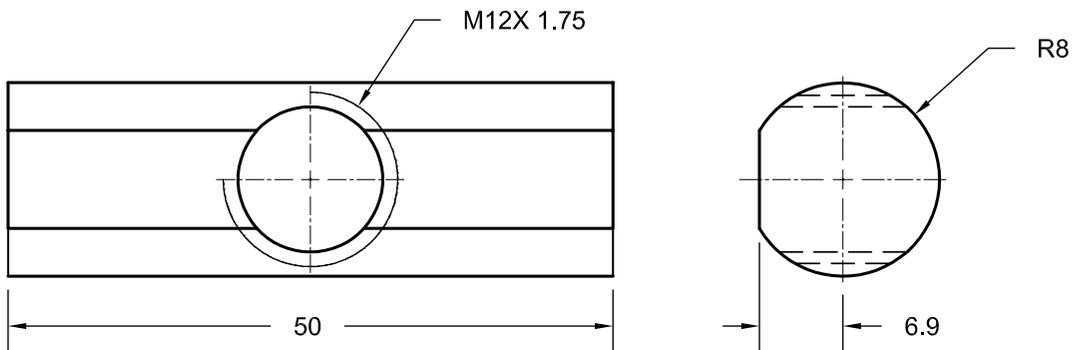


Figure P1-5 Orthographic views and dimensions of Jack Cap



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



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

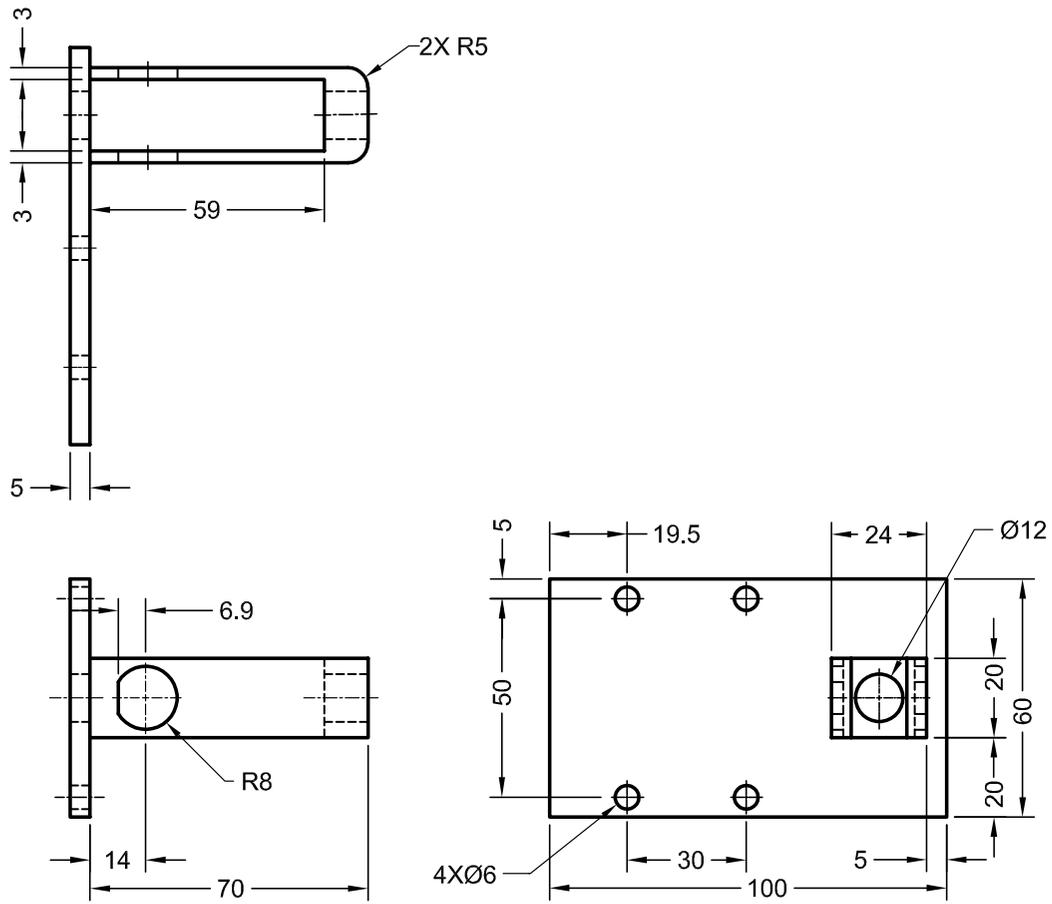


Figure P1-8 Orthographic views and dimensions of Screw Base

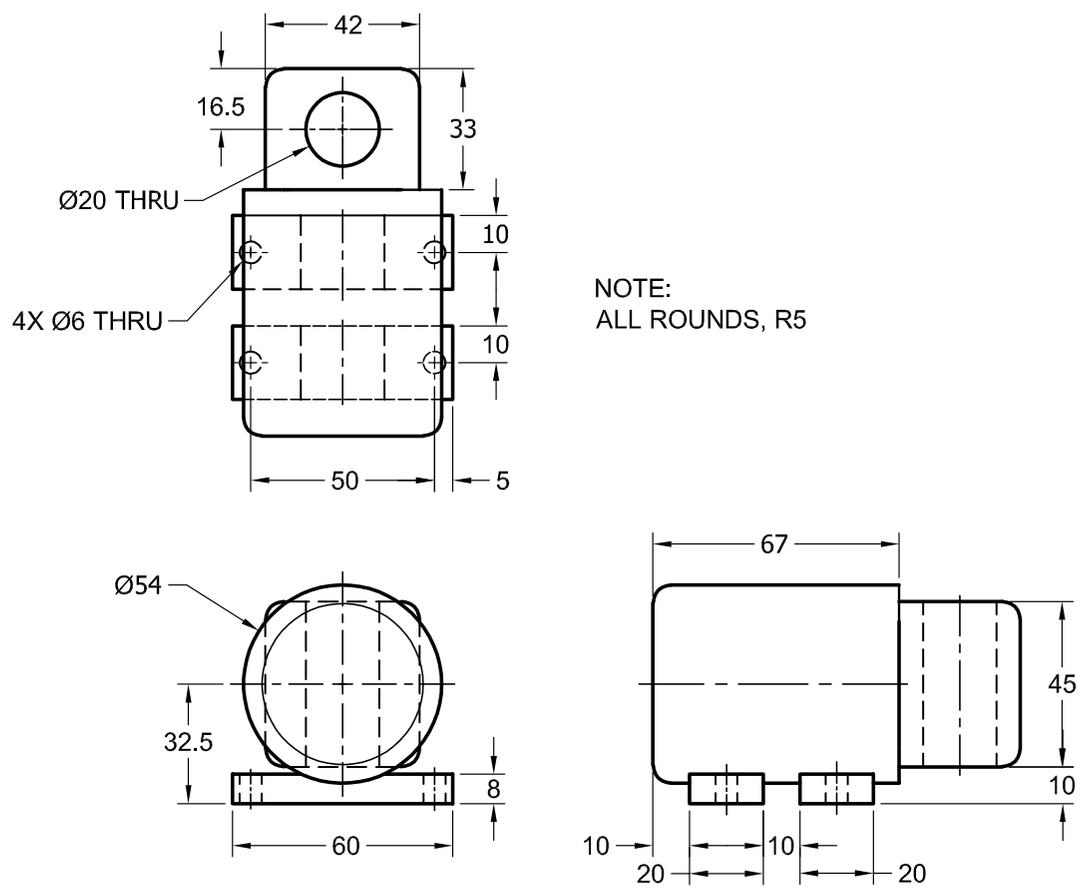


Figure P1-9 Orthographic views and dimensions of Jack Motor Case

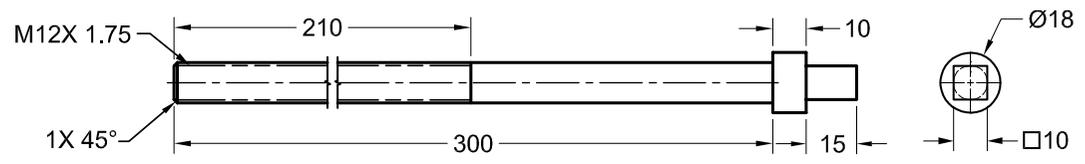
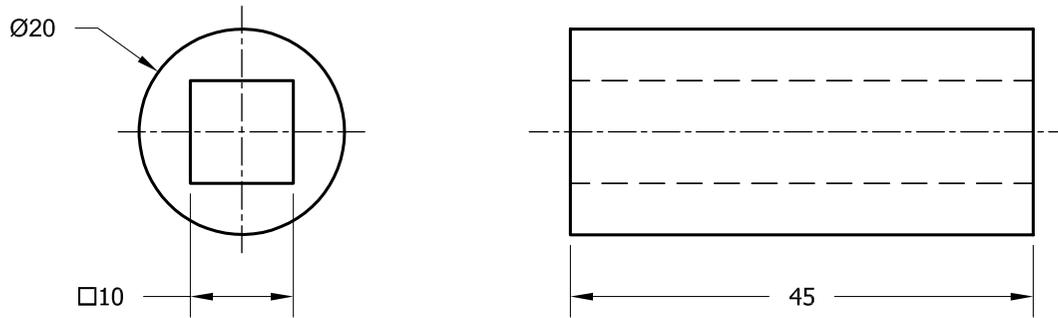
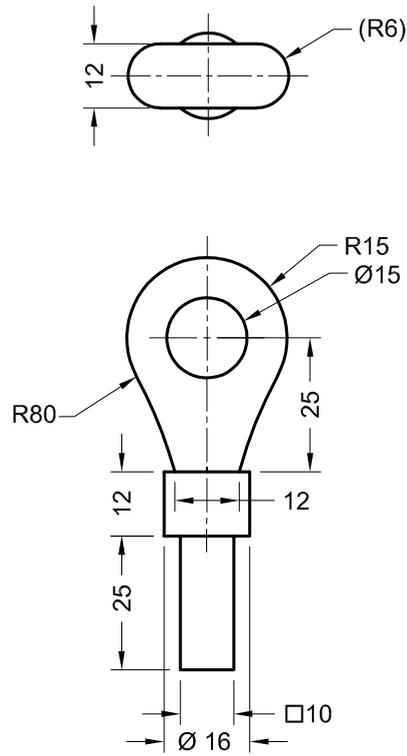


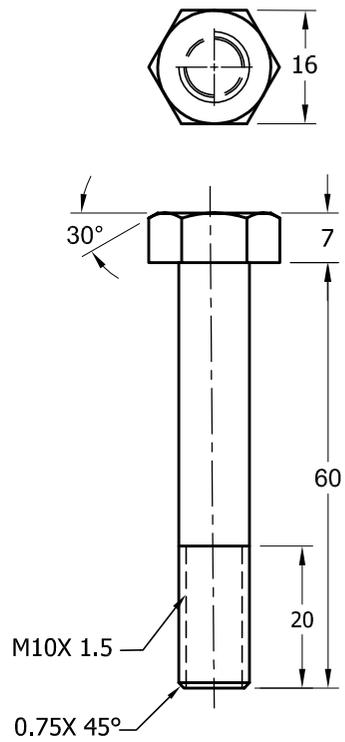
Figure P1-10 Orthographic views and dimensions of Jack Screw



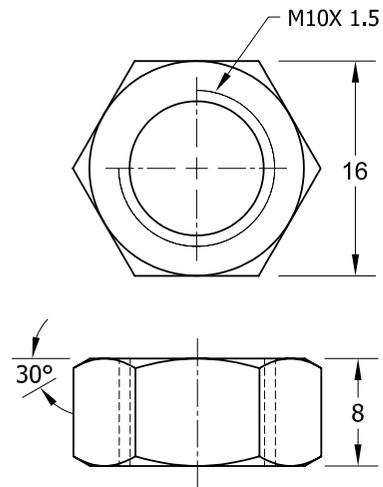
*Figure P1-11 Orthographic views and dimensions of Jack Rotor*



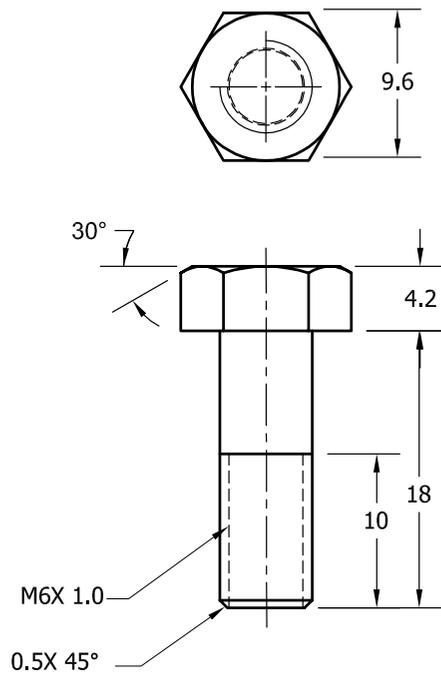
*Figure P1-12 Orthographic views and dimensions of Manual Screw*



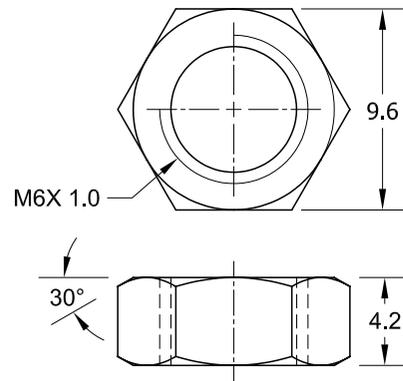
**Figure P1-13** Orthographic views and dimensions of the M10X 1.5 bolt



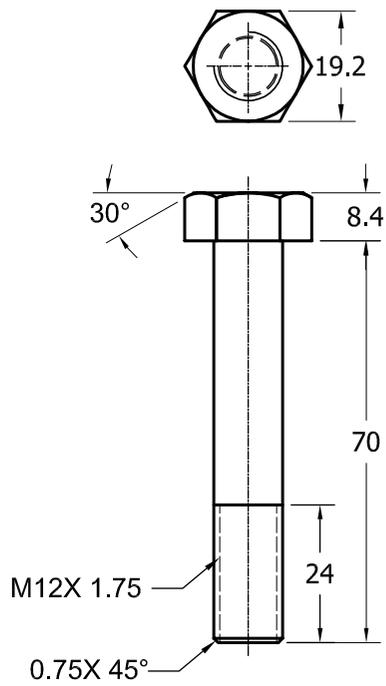
**Figure P1-14** Orthographic views and dimensions of the M10X 1.5 nut



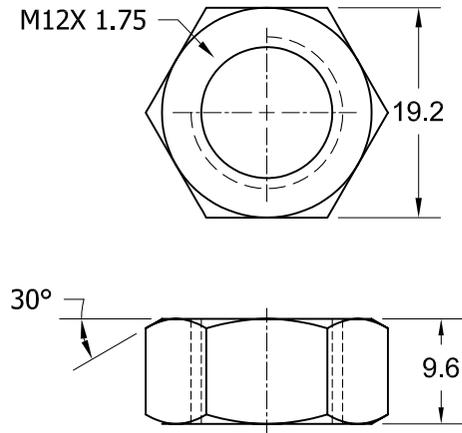
**Figure P1-15** Orthographic views and dimensions of the M6X 1.0 bolt



**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