

Mechanisms Project

This booklet is to be used as a guide whilst you are drawing the Mechanisms on SolidWorks.

It will not show you how to draw it, but does give you the correct measurements you need.

Note that all measurements are in Millimetres.

Note that there is a mix of radius and diameter measurements.

Note that there may appear to be measurements missing, this is deliberate, so as not to over constrain the drawings. You will be able to work out the missing dimensions using the existing ones.

Component parts for the Mechanism project

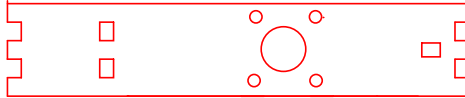
This page shows you how many of each component part you need to build the box for the mechanism project

You will need to keep checking this page whilst drawing

2 x Cam shaft



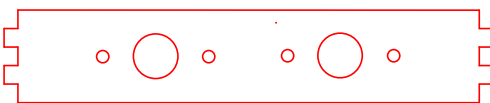
1 x Side elevation



1 x Side elevation



2 x Top / Cross bar



1 x Base / Motor support

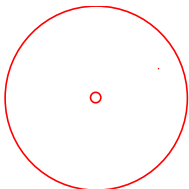


4 x Follower caps

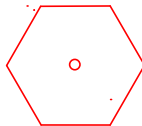


2 x Gussets

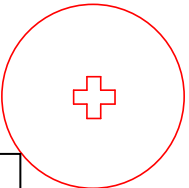
4 x Follower Shafts



2 x Outside Pulley edge for motor



2 x Inside Pulley edge for motor



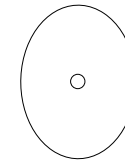
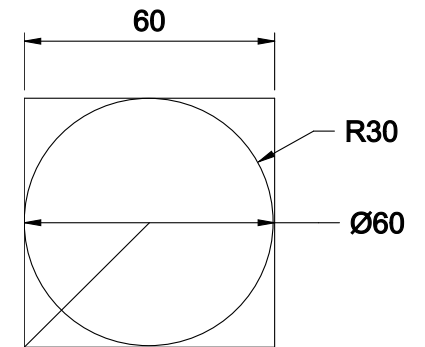
2 x Outside Pulley edge for cam shaft



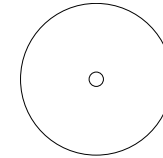
2 x Inside Pulley edge for cam shaft

Cams

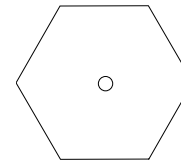
When designing your Cams, do not exceed the diameters shown in the diagram on the right



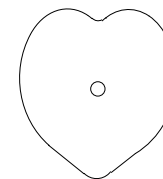
Ellipse



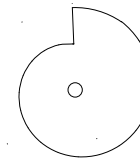
Round



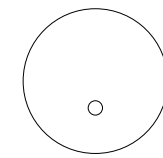
Hexagonal



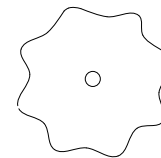
Heart shape



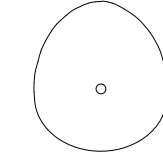
Drop



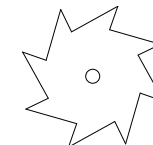
Eccentric



Irregular

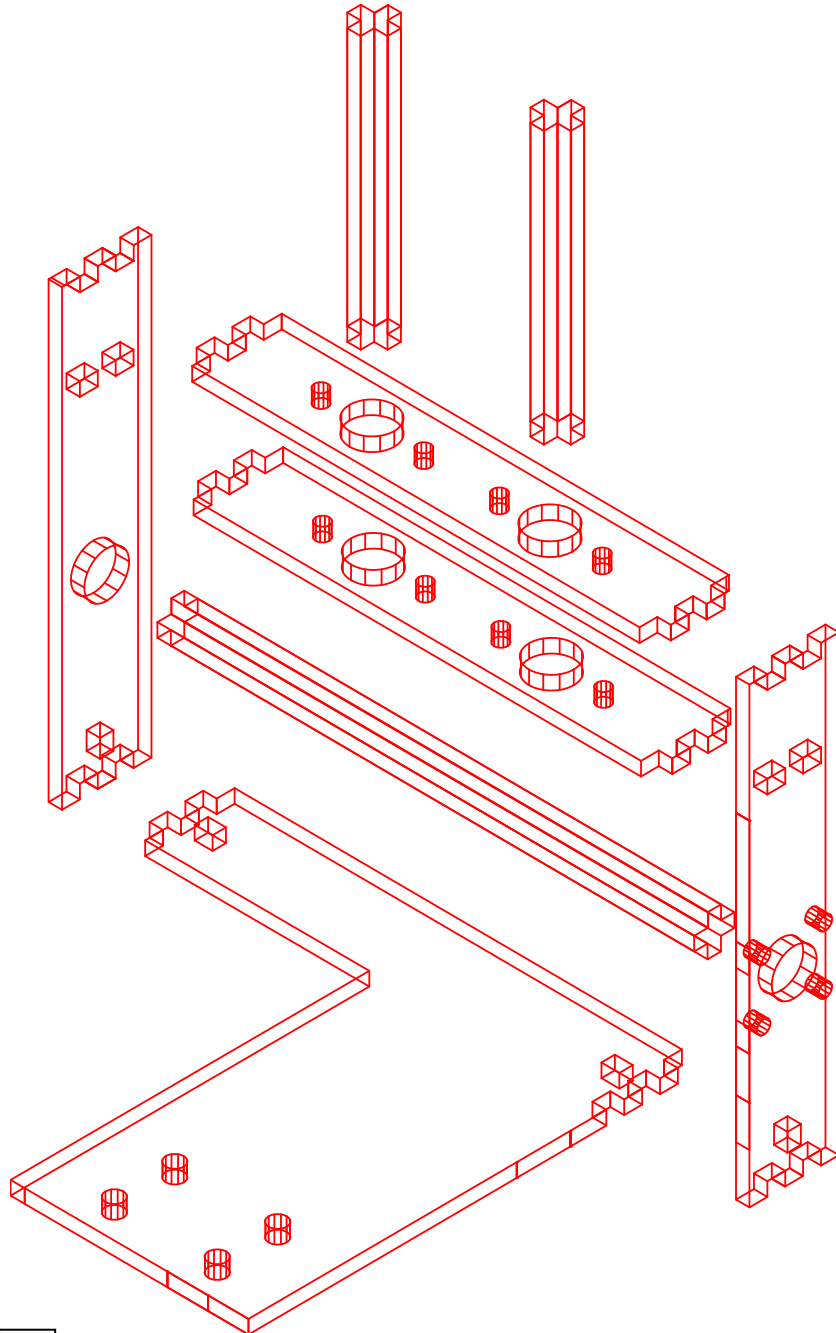


Egg or Pear



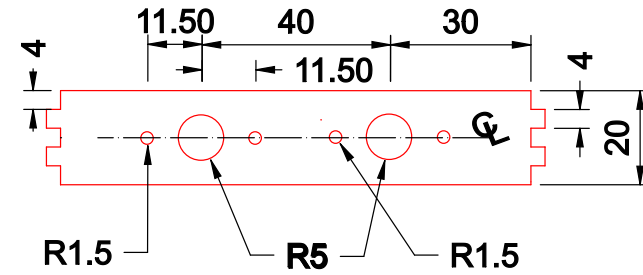
Ratchet

Exploded isometric wire diagram

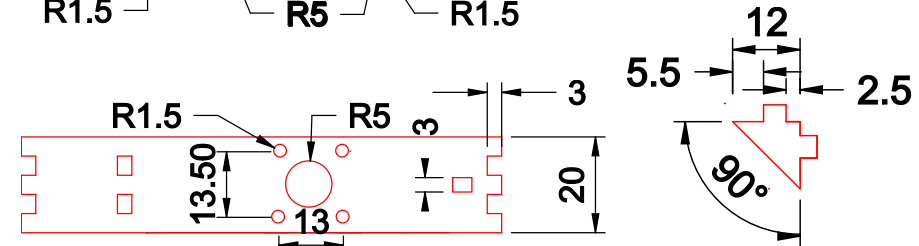


Top, Middle, Base and Side elevations

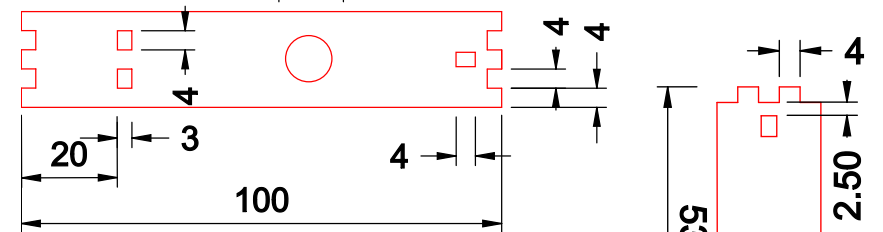
Top



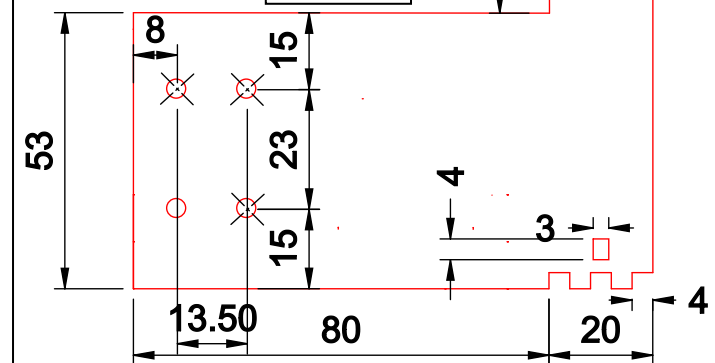
Side 1



Side 2



Base



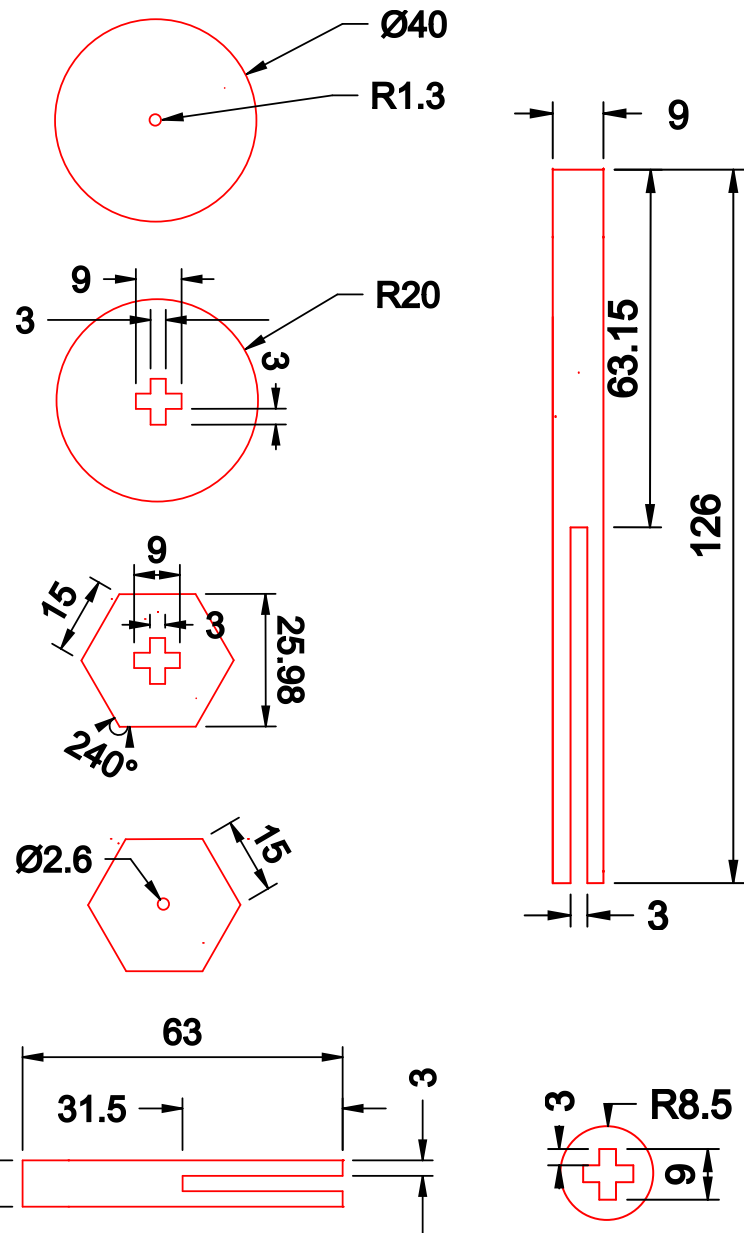
This page is not to scale, measurements are given.

All measurements are in millimetres.

Watch for centre lines

Watch for radius not diameter measurements.

Pulley wheels, Cam shaft and Followers



Isometric wire diagram

