Hello, this is Engineering Communication learning outcome one, about two dimensional sketching.

So here we have a solid object, we want to represent it in two dimension the view. So we would take an elevation view from the front of the object, then a plan view, end elevation from the right and the left. So we have to lay out these views on a page to make sense, what we call this is orthographic projection where we have two different ways of laying it out on the page, 1st angle projection and 3rd angle projection – we are staying with 3rd angle.

So here we have an object try to help us understand the symbol, that will tell us how we are representing it on the page. So if we draw the view that we are seeing on the page, try and draw in proportion, the length the same as the diameter. So from the end we have the smaller circle and the bigger circle, the two views should line up. We are trying to get neatness, proportion and correctness. So I am not very neat with my circle but you can go over it to improve. I am representing what we see straight on and what we see from the left, we draw on the left. This is 3rd angle projection.

We will move on to draw the actual object, we draw the elevation first continuing to try a keep everything in proportion so we can scale down what we are seeing. We can draw the elevation like, we are trying to get thickness here and the thickness here to be the same. The height would be like that, so this is called the elevation, capital letters. Then directly above we can draw the plan, so the lines go straight up, if you had drawing instruments it would be perfectly straight, but we have to make it as neat as possible. Then project that up the lines. We have a hole in the middle, which looks like it is a third of the width, mark dots 12, 6, 3 and 9 o’clock to help draw a uniform circle.

It is not easy but practising helps to get it right. If you do it in pencil then you can go over and highlight the edges, so that is the plan. Then we will draw the end view, where we see it is where we draw it. So we take it over here and that is the end elevation.

The study notes will help along with this video.

Thank you for listening.