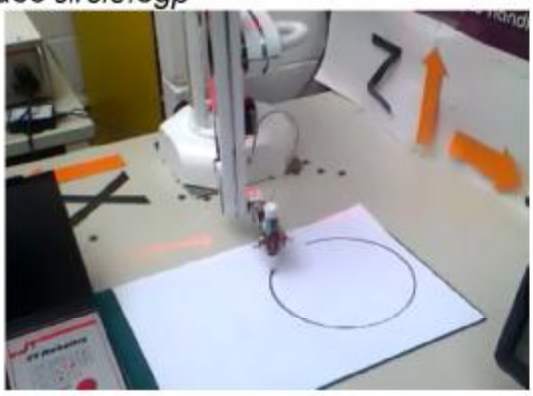
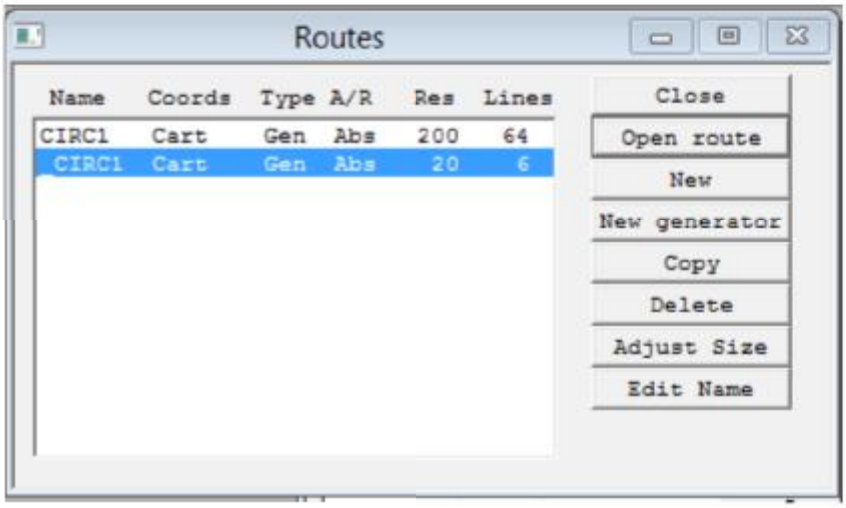
Please refer to the RobWin manual, curve generator.
This is an example only to help understanding of the curve generator.
Please load the project CIRCLE.RUN
The coordinates in this project are for R12 but you can edit the coordinates for R17.

Please view the included video *circle.3gp*



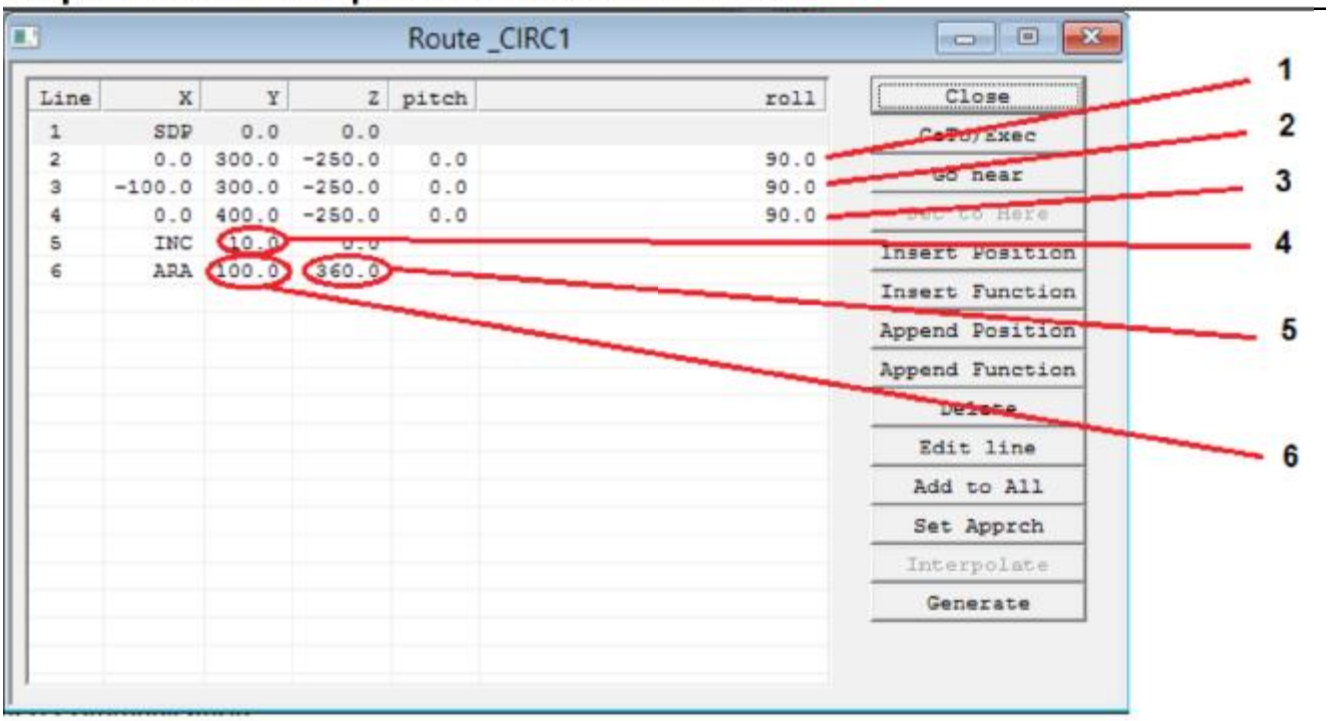
To do the same thing put a pen in your gripper and paper as in the video. The pen needs to be held quite firmly or it will move during the circle.
Normally it is the center of the hand that takes up a specified Cartesian position. In this case we want the pen to be in the specified position. So enter
TOOLSET
and for TOOL-LENGTH enter the distance from the hand center to the pen in mm x 10.

The CIRCLE project has 2 routes, CIRC1 and _CIRC1.



_CIRC1 is the control route. You can edit this to change the size and position of the circle. Open the route, edit as per next page and click 'generate'. All the coordinates in the route CIRC1 will be re-computed and over-written.

Help sheet 28 Example: how to draw a circle



1 Line 2 is the starting position of the circle.
2 Line 3 is a point in the direction the robot will be heading to start with. All that is really important about these values is that X is negative. The circle is then drawn clockwise. If X is positive the circle will be drawn anticlockwise or counter-clockwise. The Y and Z values should be the same as line 1.
3 Line 4 is some coordinate inside the circle that tells the generator which way to turn. The X and Z values must be the same as line 1. The Y value just needs to be more than the starting Y value.
4 This is the increment or distance between each line of the circle route, here set to 10mm.
5 This is the number of degrees – obviously 360 for a full circle.
6 This is the radius of the circle.
You can edit any of these parameters then click Generate. This over-writes all the coordinates in the route CIRC1. For example to change the radius of the circle change the value in point 6 above then click Generate.