

Lasercut Plants

There are now a number of companies making laser cut plants for model railways, so I thought I would have a look at them and also see if we could make some with our laser cutter.



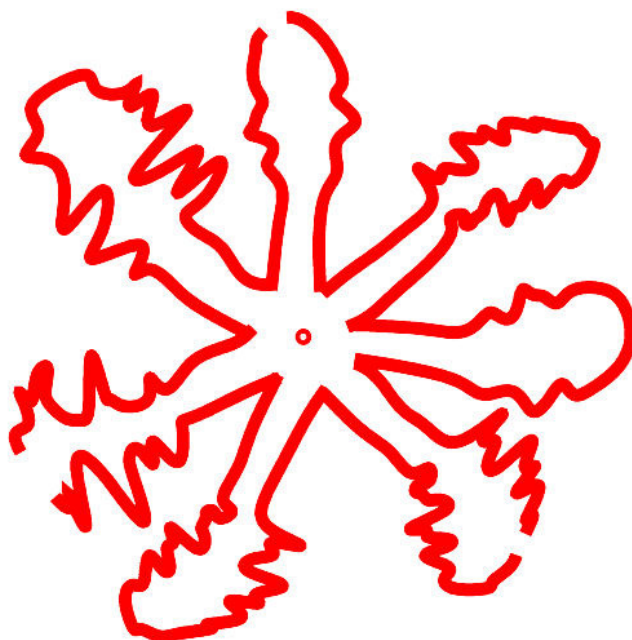
Noch produce a wide range of plants which are sold as being HO scale. However they look over scale for HO but are suitable for O. I bought 3 packs and before planting them on Okehampton, I scanned them so I would have a starting point for making my own.

As well as the Noch images I found some good photos and drawings on the internet to trace around. This I did in TurboCad. You load the image and can then draw over that image to get the out line of a leaf. A number of leaves were drawn and then arranged into rings joined at the centre. A small hole was added to the centre for the fixing pin. There are a couple of issues to take into account, first the width of the laser itself. I set the line width to 0.3mm so I could judge where the laser would cut and make sure the remaining paper was wide enough so the leaves did not fall apart. Second, you need to add small breaks in the line to make tabs. These ensure the leaf does not fall through the paper as it is cut. Three tabs for a set of leaves works fine. These small tabs are then cut with a shape knife to release the finished leaf from the paper. And third, I found an issue with how the different programs deal

with different line types. I use TurboCad as that is the program I already had and I am used to how it works. However, the export from TurboCad is not correctly scaled when read into the laser cutter software (the error is the conversion of mm and inches), this can be corrected by reading the file into ProgeCad (the free software) first. Then I found another issue. To trace around the image to get the leaf shape I used a Bezier line which was the most accurate but ProgeCad does not understand Beziers only splines. So the drawing needed conversion before being imported into ProgeCad to set the final size and export to the cutter software. TurboCad can convert line types so I just converted all the Beziers to splines.



Above: A selection of dandelion leaves.



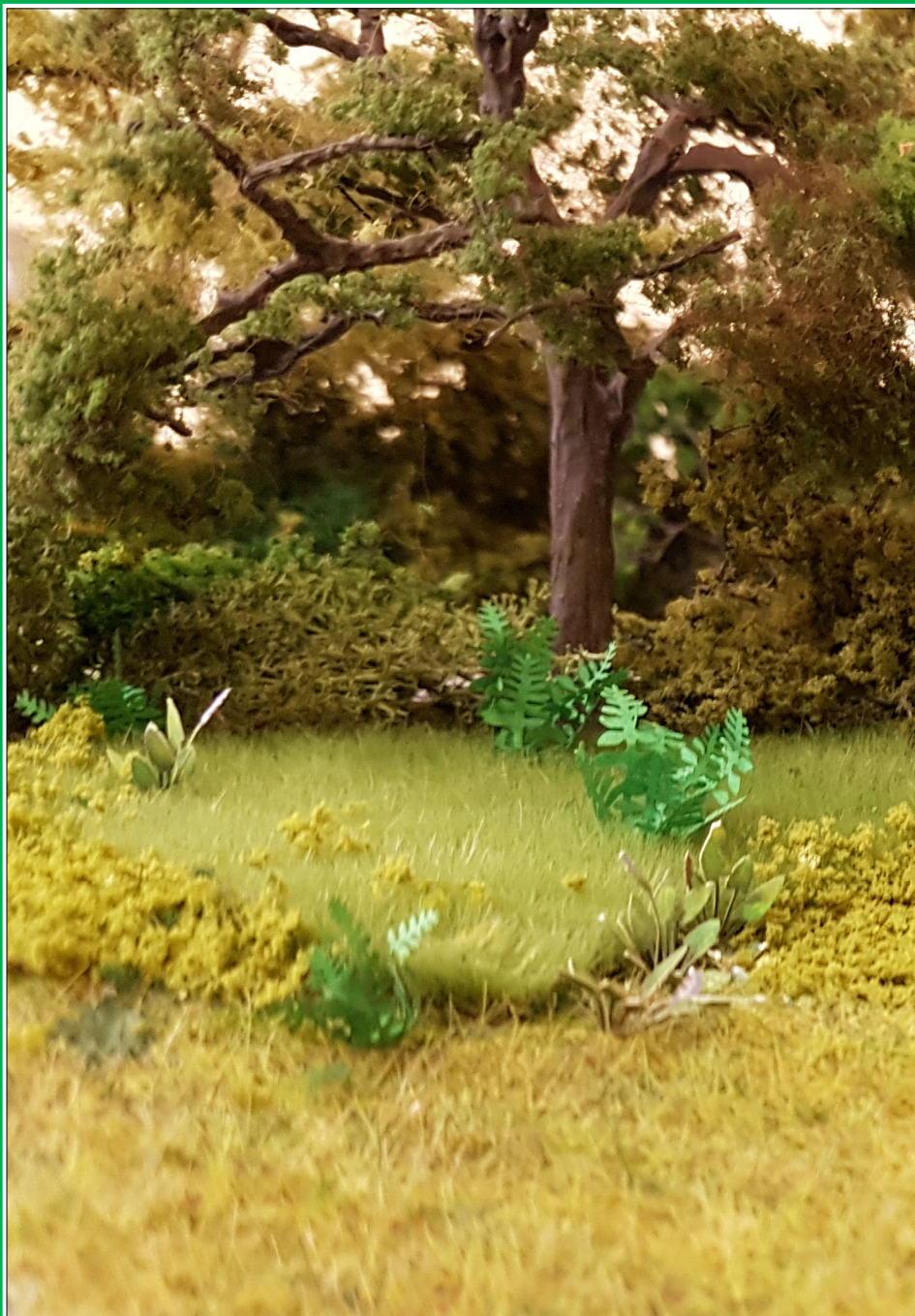
Left: the basic dandelion leaf ring with 7 different leaf shapes. This basic ring can be adjusted in size for different sized plants.

To complete the dandelions the flower was made from a Peco track pin coated in yellow paint. In this case an old Games

Workshop yellow that had gone quite thick. The pin is then pushed through the sets of leaves of slightly different sizes and is then planted on the layout, see below.



Above: Broad leaf docks, they need a little colour to finish them.



Above: a scene from Okehampton showing paper plants added to the hedgerow.

So far, I think the experiments work. I can make plants out of paper. The issues to solve are the paper colour and type and which plants can be made. The shape and size of the leaf is quite important in being able to successfully cut it. Maybe a few more of you would like to have a go at this.

Paul