

#### **4D MODELSHOP GUIDE TO MAKING A JIG**



- This is a guide to jig making using the example of a card picket fence on the model shown here.
- Always use a cutting mat and safety rule when using a scalpel.

## **CUTTING THE PICKETS**

1. Using a ruler and knife mark a number 4mm divisions on either end of the card.

2. Line the ruler up to the knife marks made on the card and cut the card making a series of shallow cuts until you have cut all the way through.

3. Repeat this until you have cut all the strips.



Note: The first strip cut is often a slightly different width to the others so may have to be discarded.

#### **MAKING THE PICKET JIG**



For this jig we used 1mm styrene.

- 1. Cut a piece of styrene big enough to make the base of the jig, in this case 30 x 120mm
- 2. Cut a 10mm strip of styrene to form the sides of the jig
- 3. Make an approximately 35° angled cut on the end of the 10mm strip
- 4. Mark the length of the picket on the styrene measuring from the pointed end and make a right angled cut using an engineers square
- 5. Using the cut piece as a guide cut the same 35° angle on the 10mm strip



- 6. Then using the cut piece mark the length on the 10mm strip
- 7. Cut the 10mm strip to the same length using the engineers square.
- 8. Glue one of the angled pieces onto the base with plastic weld.
- 9. When dry place a strip of the card against the glued styrene and glue the other piece of styreneonto the base making sure the pieces of styrene match up exactly.

## **USING THE JIG**

 Insert the card strip into the jig
Make sure the strip does not move, cut the first angle.
Cut the second angle, then the length to complete the picket.
Remove and repeat until there are enough pickets to make the fence.

#### **CUTTING THE RAILS**

1. Using a ruler and knife mark a number 3mm divisions on either end of the card.

 2. Line the ruler up to the knife marks made on the card and cut the card making a series of shallow cuts until you have cut all the way through.
3. Repeat until you have cut all the rails.

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For this jig we used 1mm styrene.

1. Cut a piece of styrene big enough to make the base of the jig, in this case 300 x 50mm (A)

2. Cut a two 15mm strips of styrene to form the top and bottom of the jig (B + D)

3. Cut a 9mm strip of styrene which will space the rails apart (C)

4. Cut a 10mm strip of styrene which will be used to make sure the pickets are level when glued (E)

5. Glue the first 15mm strip onto the base using plastic weld making sure that it is glued exactly along the edge of the base (D)



6. When dry place one of the rails against the 15mm strip & glue the 9mm strip against it (C) 7. When the 9mm strip is dry place another rail against it & glue the other 15mm strip to the base (B)

8. With a pencil mark 9mm divisions along the top of the jig

9. Using the engineers square draw lines across the jig from the division marks made

10. Glue the 10mm strip to the bottom 15mm strip (E)

# **ASSEMBLING THE PICKET FENCE**











- 1. Place the two rails in the jig
- 2. Using the pencil marks as a guide and put a dot of glue on each rail
- 3. Glue a picket onto the rails using the lines to keep the picket straight and the 10mm strip
- at the bottom to keep all the pickets level
- 4. Repeat gluing the pickets until the fence is complete

# **PRODUCTS USED** 1. Plastic Weld Solvent 57ml 6. Scalpel No3 & 5 x 10a blades (AM00001) (TK10065) 2. Fast Tack glue 115ml 7. A4 cutting mat green (AP00019) (TM00014) 3. Fine hair 5 paint brush 8. Square 50.8mm (FB10008) (TQ00001) 4. Card 9. Safety rule 1.2 x 510 x 640mm white (TR10009) (RK10076W) 5. White styrene 1.0 x 660 x 340mm (RS10060)

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