## wOODTURNERS

SOUTH AUCKLAND
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TURNING TOMORROW'S TREASURES

## Fidget Toy

This is a woodturned replica of the multi-coloured plastic slug-like toy. It consists of 17 body parts plus a head and tail. Before you start turning be sure you have at least three chuck sizes and fine braided string, 1 mm recommended, to assemble the finished work.


The 17 body parts are all the same style but of differing sizes as listed in the table below. Start by cutting 17 blocks that are $50 \times 50 \times 35 \mathrm{~mm}$. If possible the grain direction should be along the 35 mm axis.

| Segment | od | H Dia | Thick | Drill | Tail |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 30 | 15 | 11 | 13 | 13 |
| 2 | 33 | 20 | 11 | 15 | 15 |
| 3 | 36 | 24 | 11 | 15 | 15 |
| 4 | 37 | 27 | 11 | 15 | 15 |
| 5 | 38 | 28 | 12 | 15 | 15 |
| 6 | 39 | 28 | 12 | 15 | 15 |
| 7 | 38 | 28 | 12 | 13 | 13 |
| 8 | 36 | 28 | 12 | 12 | 12 |
| 9 | 34 | 27 | 12 | 11 | 11 |
| 10 | 32 | 25 | 12 | 11 | 11 |
| 11 | 30 | 21 | 12 | 11 | 11 |
| 12 | 28 | 20 | 11 | 10 | 10 |
| 13 | 26 | 19 | 11 | 10 | 10 |
| 14 | 24 | 17 | 10 | 9 | 9 |
| 15 | 21 | 15 | 9 | 9 | 8 |
| 16 | 19 | 14 | 8 | 8 | 6 |
| 17 | 17 | 14 | 8 | 7 | 5 |



Start with one of the $50 \times 50 \times 35 \mathrm{~mm}$ blocks mounted in a chuck. Ensure that at least 25 mm of the wood is protruding from the chuck jaws. You may need to put a packer behind the wood. Turn the wood to the od, as shown in the table, of the segment you are turning.

## Fidget Toy P2



If needed, true the face of the wood. Mark on that face the High Diameter (H Dia in the table). Mark on the side of the wood the Thickness (Thick in the table) of the segment you are turning.

Cut a curve between those two marked lines. Sand this area and reinstate the Thickness line. Drill a 4 mm diameter hole from the face down to the Drill depth shown in the table for segment you are making.


Hollow the inside of the segment. Curve the sides down and leave just half a millimetre of the drill hole at the bottom.
Cut a tiny chuck bite on the outside of the curve to suit the chuck you will use for turning the other side of the segment.

Turn the work over and re-mount it in a smaller chuck. Cut the square corners down to the od you turned earlier. Mark this surface with the Tail length from the Thickness mark you reinstated earlier.


Cut the wood down to the Tail Length mark. Drill a central hole completely through the wood, 1.5 mm diameter is recommended, for the string.

Cut the wood to the shape shown. The outer edges are turned down to the thickness mark. The centre remains at the height cut before the hole was drilled. Ensure that the centre piece around the drilled hole is just under 4 mm diameter so that it fits into the 4 mm hole in the neighbouring segment.

## Fidget Toy P3



Cut a block of wood 20 mm on all sides. Mount this in a small chuck. Turn it down to 15 mm diameter. Drill a 4 mm 6 mm into the wood. Then a 1.5 mm hole completely through the wood.
OR turn the head to be a curved surface. Drill four holes. Make two eye stalks and two antennae and glue them into the holes.
Turn the wood over and mount it in a smaller chuck. Turn the wood round and down to a diameter that will give you eye stalk lengths of your choice. Then cut away the centre of the head and behind the eye stalk to leave a disc of wood. You can now carve that disc of wood to be the eye stalks and antennae.


Hollow the end of the wood down to almost the bottom of the 4 mm drilled hole. Curve the outside of the block as shown. Sand this area. Part it off.


