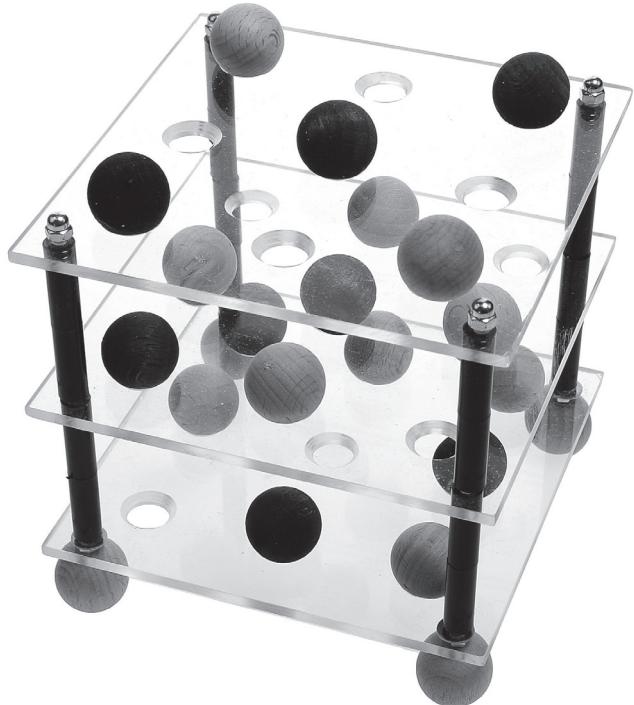


# OPITEC

## Hobbyfix

109.265

### 3 D-TIC-TAC-TOE



**Warning!**  
This product contains  
small parts that can be  
swallowed  
There is a danger of  
choking

#### Necessary tools:

Scissors  
Sellotape  
Drills Dia.2.5mm; 0.3mm; 10mm diameter  
Counterink drill 90 degrees  
Hacksaw  
Spanner 5.5mm  
Vice & Drill

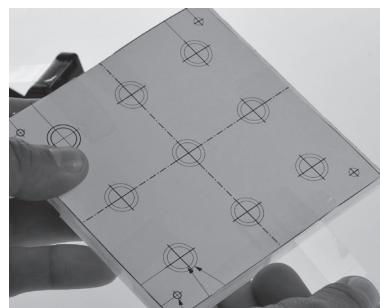
#### Please Note

The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

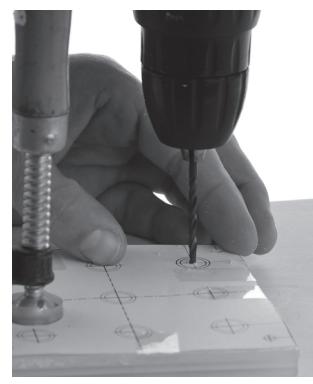
| PARTS LIST                 |          |            |                    |         |
|----------------------------|----------|------------|--------------------|---------|
|                            | Quantity | Size in mm | Description        | Part no |
| Acrylic sheet              | 3        | 110x110x3  | Playing field      | 1       |
| Threaded rod               | 2        | M3x200     | Guide              | 2       |
| Distance tubes             | 16       | 20         | Fixing             | 3       |
| Domed nuts                 | 4        | M3         | Abdeckung          | 4       |
| Wooden balls ,without hole | 31       | Ø18        | Feet + Play pieces | 5       |

# INSTRUCTIONS

1. Trace the holes for drilling ( page 5) on the acrylic sheets (Do not remove the protective layer) Place the sheets on top of each other and hold them together with masking tape.

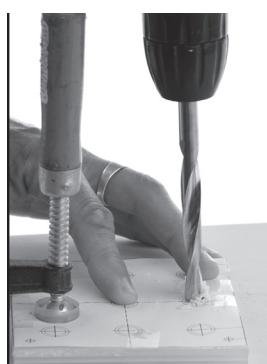


2. Fasten the acrylic sheets to a plywood sheet with clamps  
Use a pillar drill or a electric drill to drill the 4 x corner holes 0.3mm diameter  
and drill a pilot hole 0.3mm in the 10mm holes.



- 3 Finally clamp the acylic sheets flat and drill the 10mm diameter holes.

**Note** We recommended using a special bit for plastic.



4. Spilt up the pack of acylic sheets ( Remove protection sheet as well ) Countersink the 10mm holes and the 0.3mm holes from one side. ( Work on a plywood base )

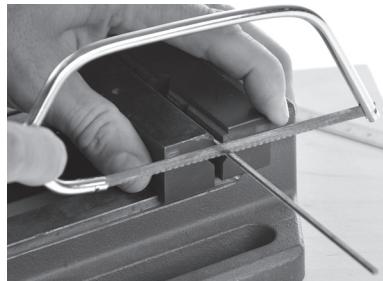
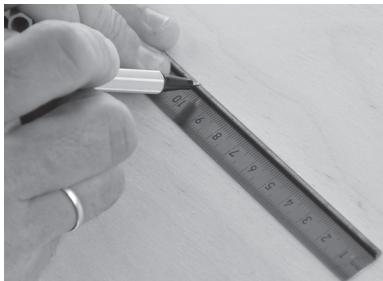


# INSTRUCTIONS

5. Mark the middle of the threaded rods (2) and saw them in half.

Use a file to remove burr from the end of the threaded rods.

Screw a domed nut (4) on the end of each rod.



6.. Bei Drill 4 balls ( 5 ) in the middle with a Ø2,5mm-Blind hole ca. 10-15 mm deep

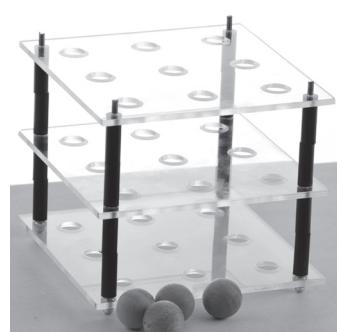
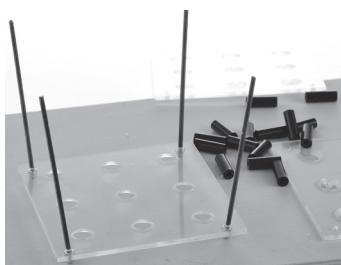
**Note:** Do not drill completely through!



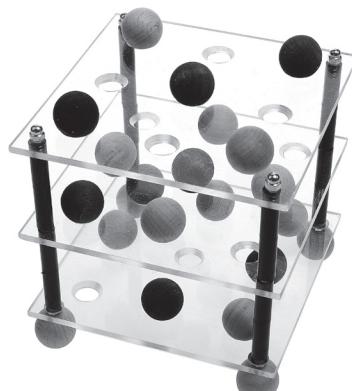
7. Place the 4 threaded rods with the domed nuts underneath (s.Dia.) on an acrylic sheet , so that the 10mm countersunk holes face down

Slide 2 distance tubes (3) on each threaded rod . Then add the second acrylic sheet with the countsunk holes facing down  
Then again once more add a further 2 distance tubes, again with the countersunk holes facing down. Finally add the last distance tubes and the last the last acrylic sheet again with the coutersunk holes facing down.

Finally add the 4 drilled balls to the base as the feet. The threaded metal rod will cut its own thread in the wooden balls  
**Note** Make sure everything is square when tighteneing up the acrylic sheets!



8. Colour one half the balls



## **The game**

Each player tries to get three balls in row whether vertical, horizontal or diagonal. The opponent tries to break this sequence and stop the other player from making 3 balls in a row  
Basically a 3D game of noughts and crosses !!!

Jeder Spieler versucht eine Folge von drei Feldern in seiner Kugelfarbe senkrecht, waagerecht oder diagonal auf einer Ebene oder auf alle drei Ebene verteilt zu setzen. Wem es zu erst gelingt, ist Sieger.

Spieler A belegt ein beliebiges Feld auf einer der drei Ebenen.

Spieler B belegt sein daraufhin taktisch ausgewähltes Feld, auf einer der drei Ebenen.

Die Spieler belegen abwechselnd ihre Felder.

# INSTRUCTIONS

## Bohrschablone

Scale 1:1

