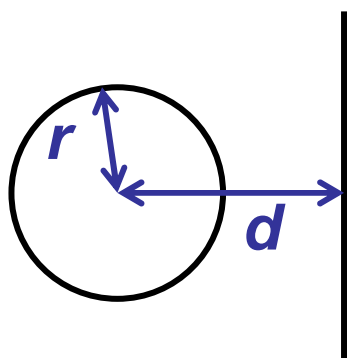
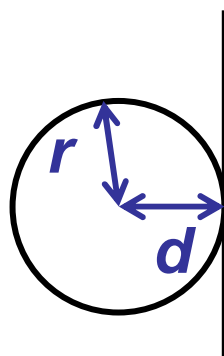


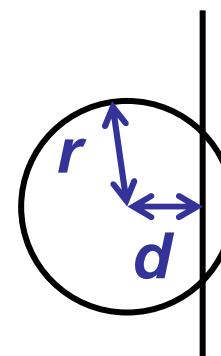
ring torus
 $r < d$



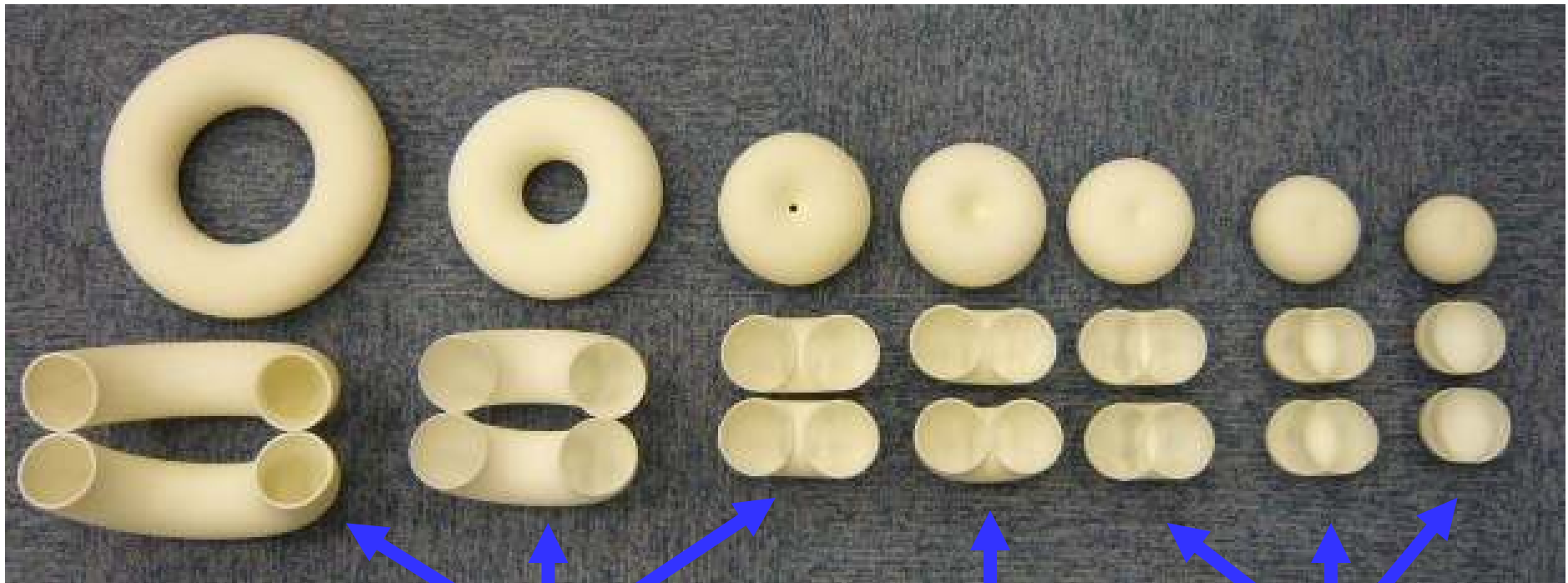
horn torus
 $r = d$



spindle torus
 $r > d$



Seven kinds of torus



$$r < d$$

ring torus

$$r = d$$

horn torus

$$r > d$$

spindle torus

We used four kinds in our recognition test.

Bohemian dome

Circular movement of a circle in a vertical plane.

The circle always turns its face towards the vertical direction.

