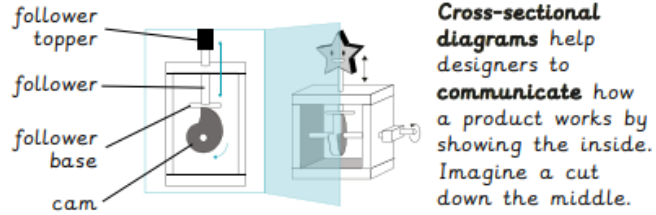


# Structures and Mechanisms

Design and make an automatic toy supported by a sturdy, aesthetic structure.

## Cross-sectional diagrams

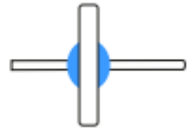


Automata toys use a mechanical system of cams, axles and followers to create movement in a character or object.

## Making adjustments and improvements

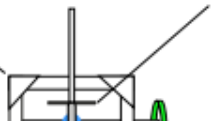


Increase the thickness of the **cams** by using corrugated card or sticking the same shape **cams** together.



Secure the **cam** to the **axle** with sticky tack or modelling dough so the **cam rotates** with the **axle**.

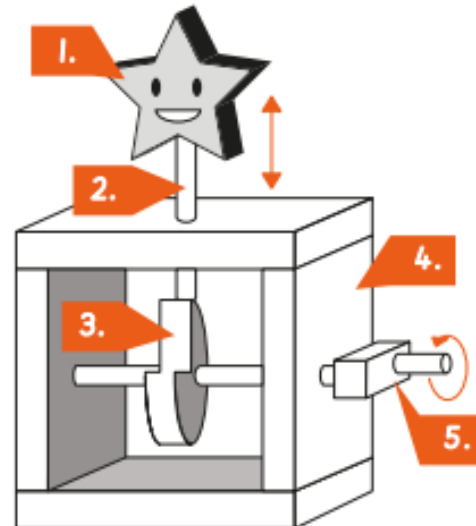
Make sure the frame is straight.



Add material to straighten the frame.

Make sure the base of the follower is touching the cam.

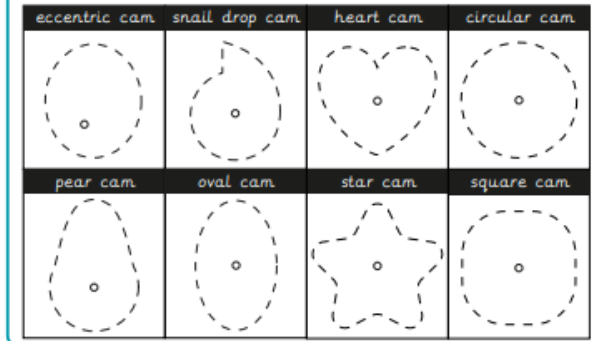
Turn the axle smoothly. Add a handle to make this easier.



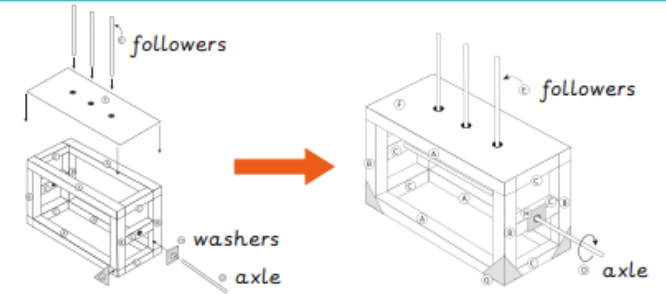
## Automata toy components:

1. Character.
2. Follower.
3. Cam.
4. Frame.
5. Axle attached to handle.

## Cam shapes



## Exploded diagrams



Exploded diagrams communicate how the parts of a product fit together. They help when making the product.

## Cam shapes

