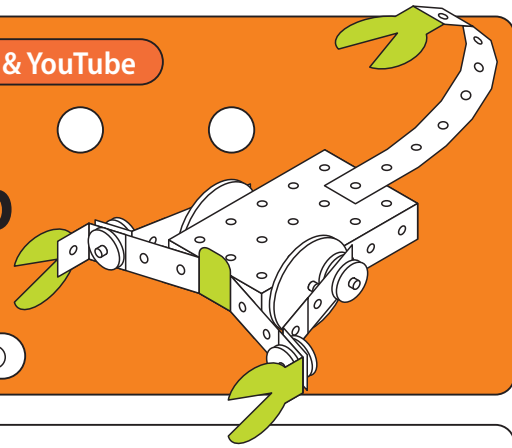




Visit TechCard at [techcard.co.uk](http://techcard.co.uk) & Instagram & YouTube

# Snapping Crab

Move-it Kit Skill Level ● ● ● ○ ○

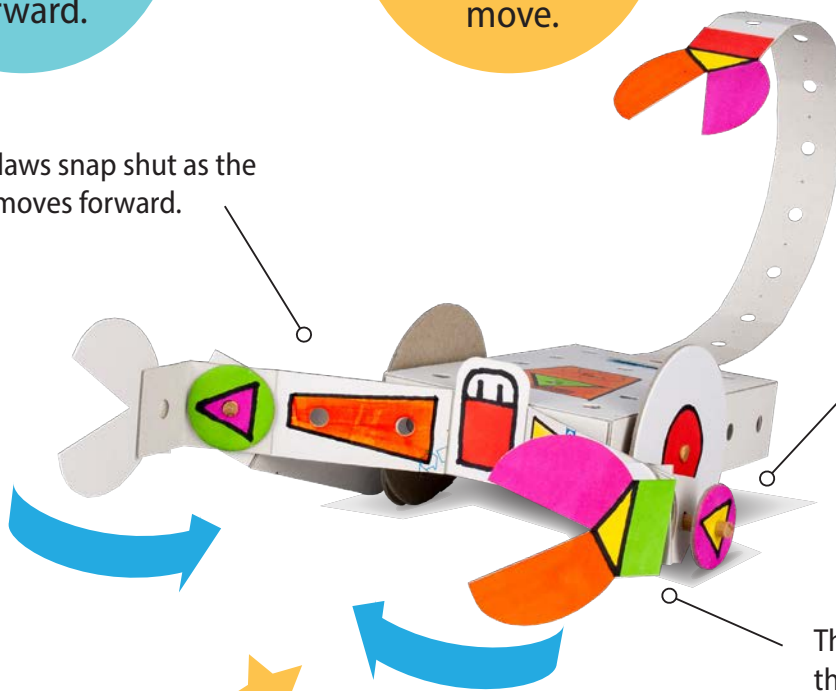


Watch the claws snap together as the crab moves forward.

Explore how linkages and levers can make things move.

See how to make with TechCard on our website.

The claws snap shut as the crab moves forward.



Linkages connect the wheels to the claws.

The force of friction makes the wheels turn.

Assembly videos on YouTube!

## Parts to make 1 model

### Structural Parts

|                 |   |
|-----------------|---|
| TechCard Strip  | 2 |
| TechCard Girder | 1 |
| TechCard Beam   | 1 |
| TechCard Base   | 1 |

### Mechanical Parts

|                  |   |
|------------------|---|
| 25mm Disc        | 8 |
| 60mm Wheel       | 2 |
| 300mm Dowel Axle | 1 |

### Additional Materials

A5 Size Thin Card

You will have parts left over towards other models.

## Parts to make 10 models

### Structural Parts

|                 |    |
|-----------------|----|
| TechCard Strip  | 20 |
| TechCard Girder | 5  |
| TechCard Beam   | 1  |
| TechCard Base   | 10 |

### Mechanical Parts

|                  |    |
|------------------|----|
| 25mm Disc        | 80 |
| 60mm Wheel       | 20 |
| 300mm Dowel Axle | 8  |

### Additional Materials

A5 Size Thin Card x 10

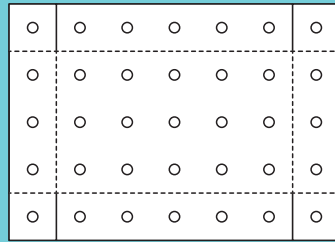
Based on pupils sharing off-cuts between them.

# Make the Snapping Crab

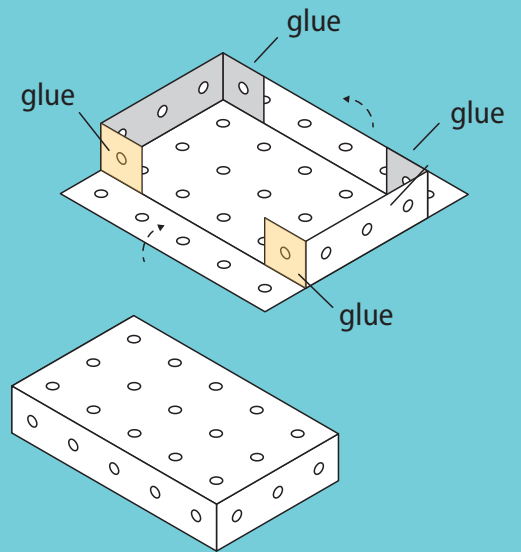


Before you start see  
'Make with TechCard'  
on our website.

## 1 Make the body.

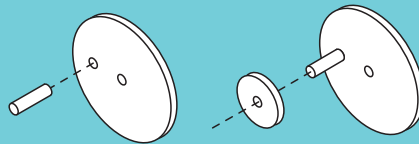


Fold and glue a TechCard  
base to make the chassis.

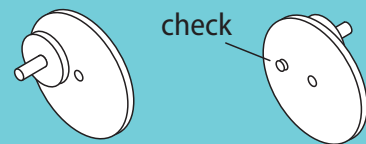


## 2 Make the cams.

Cut two 25mm axles.



Fit the dowels into two 60mm wheels  
and fit a 25mm disc as shown.

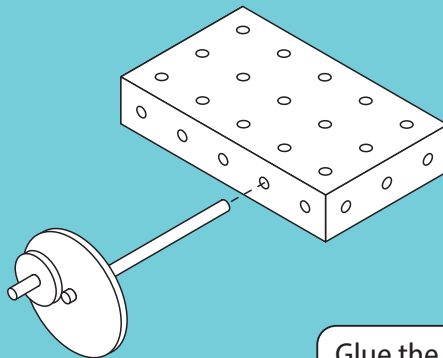


Make two cams. Check the axle only  
sticks out the back of the wheel a little.

## 3 Fit the front axle and cams.

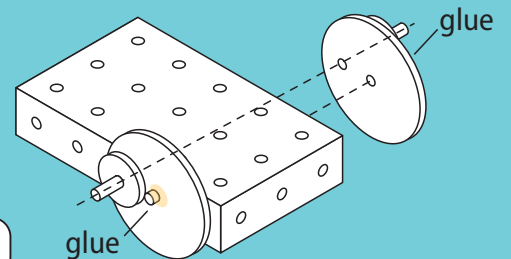
Cut a 90mm axle.

Fit a cam onto the end of  
the axle and pass through  
the chassis where shown.

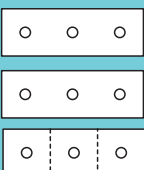


Glue the cams.

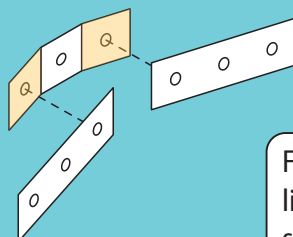
Fit the second cam checking  
the 25mm axles line up.



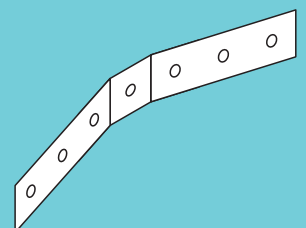
## 4 Make the arms.



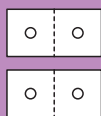
Cut two 75mm strips  
and one 25mm beam.



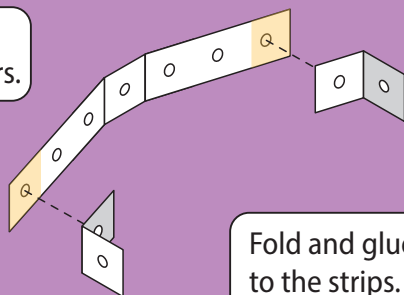
Fold the beam a  
little and glue the  
strips as shown.



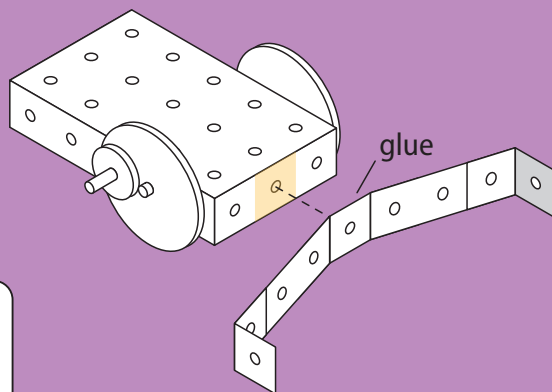
## 5 Finish the arms.



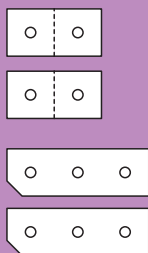
Cut two 25mm girders.



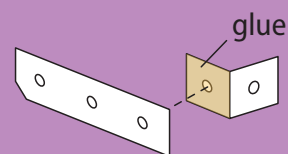
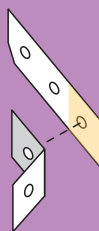
Fold and glue the girders to the strips. Glue the arms to the base.



## 6 Make the linkages.

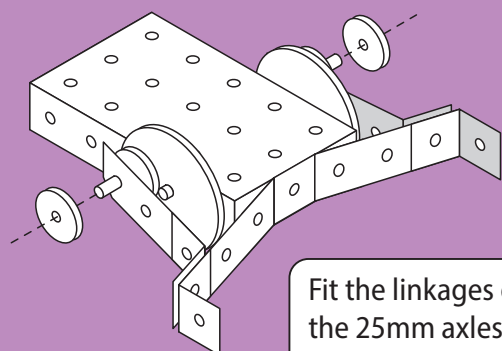


Cut two 25mm girders and two 75mm strips. Cut the corners from the strips as shown.



Fold and glue the girders to the strips.

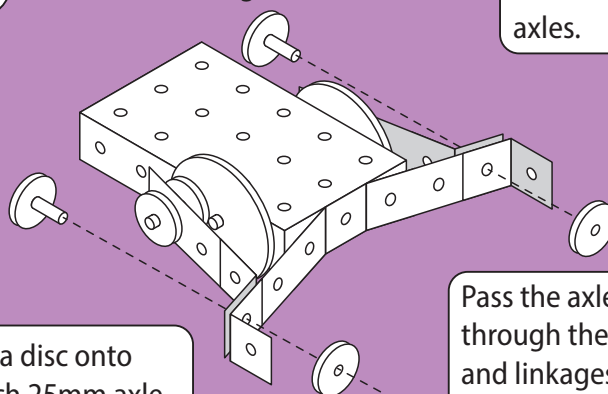
## 7 Fit the linkages.



Fit the linkages onto the 25mm axles and fit two 25mm discs.

## 8 Connect the linkages.

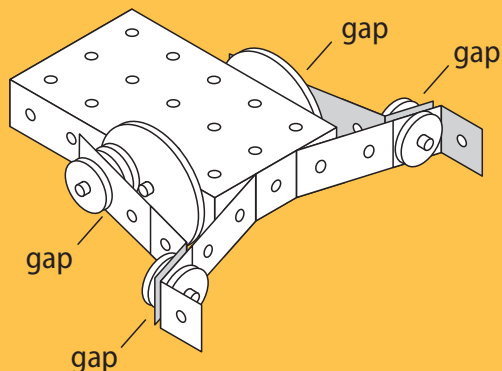
Cut two 25mm axles.



Fit a disc onto each 25mm axle.

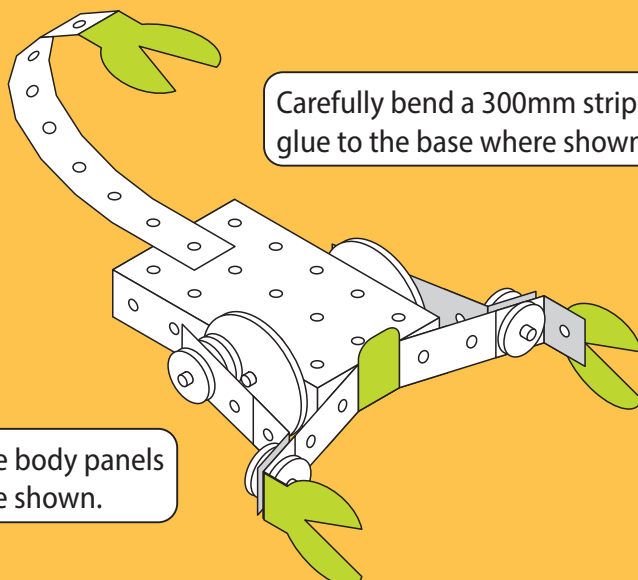
Pass the axles through the arms and linkages and fit 25mm discs.

## 9 Check the mechanism.



Check there are gaps so that the mechanism works smoothly.

## 10 Finish your model.



Carefully bend a 300mm strip and glue to the base where shown.

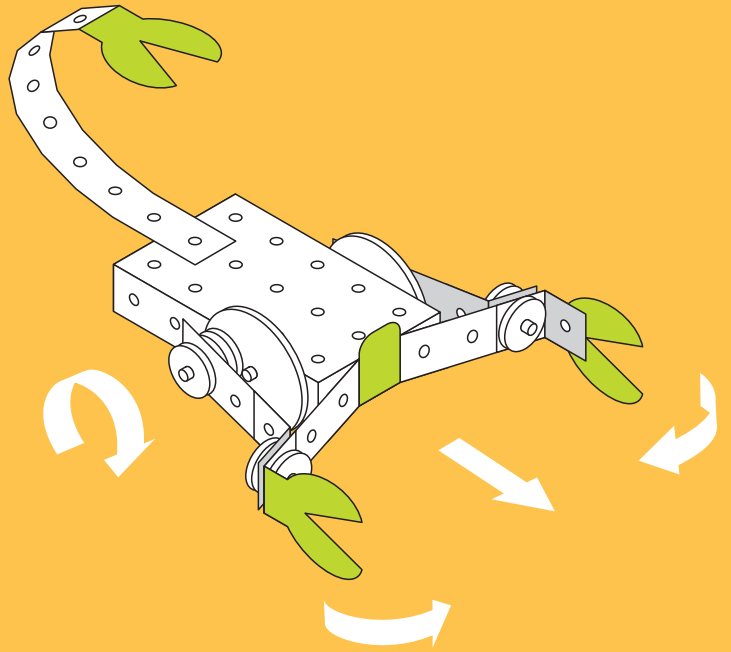
Fit the body panels where shown.

## 11 Operate your Snapping Crab!

Push the crab forward and the wheels, which incorporate a cam, rotate.

As the cams turn they cause the linkages attached to them to move back and forth. The cams change a rotating force to a linear force.

The linkages are connected to the arms which snap back and forth as the crab moves!



## Card Panels

