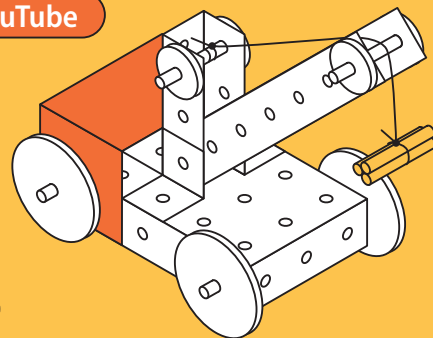




Visit TechCard at techcard.co.uk & Instagram & YouTube

Mobile Crane

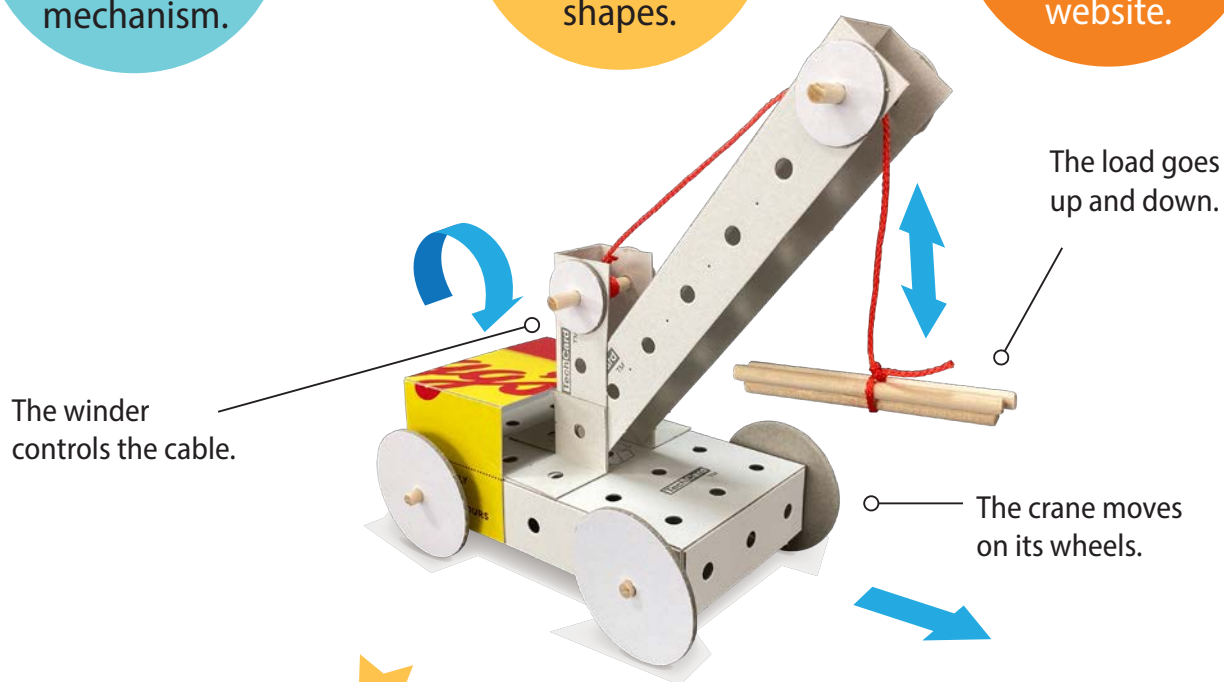
Make and Create: Skill Level ● ● ● ● ●



Build a working mobile crane with a simple winding mechanism.

Explore wheels & axles, winders and making strong shapes.

See how to make with TechCard on our website.



Assembly videos on YouTube!

Parts to make 1 model

Structural Parts

TechCard Girder	1
TechCard Beam	1
TechCard Base	1

Mechanical Parts

25mm Disc	4
50mm Wheel	4
100mm Dowel Axle	2
50mm Dowel Axle	2

Additional Materials

300mm String
A5 Size Thin Card

You will have parts left over towards other models.

Parts to make 10 models

Structural Parts

TechCard Girder	4
TechCard Beam	10
TechCard Base	10

Mechanical Parts

25mm Disc	40
50mm Wheel	40
300mm Dowel Axle	10

Additional Materials

3m String
A5 Size Thin Card x 10

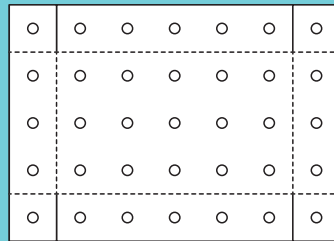
Based on pupils sharing off-cuts between them.

Make the Mobile Crane

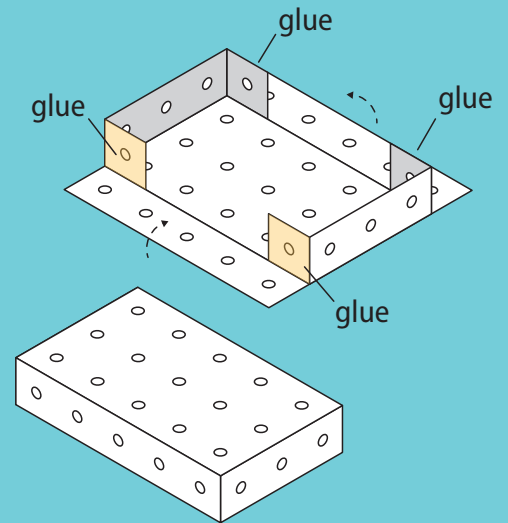


Before you start see
'Make with TechCard'
on our website.

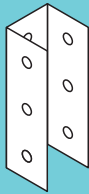
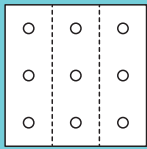
1 Make the chassis.



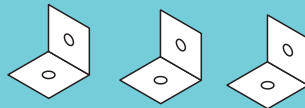
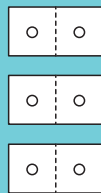
Fold and glue a TechCard
base to make the chassis.



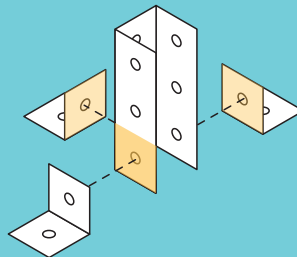
2 Make the support.



Cut a 75mm beam
and fold to shape.

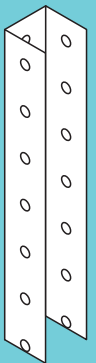
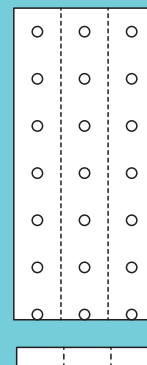


Cut three 25mm girders
and fold to shape.



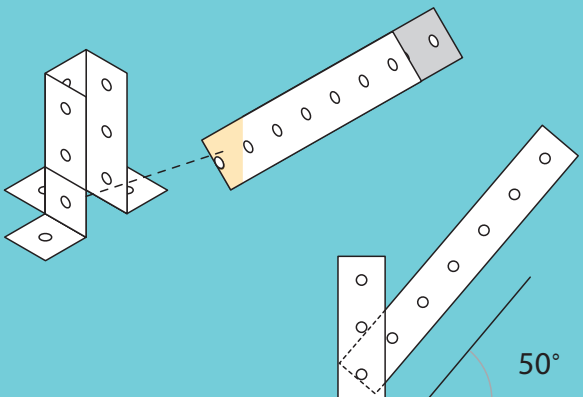
Glue the girders to the
beam as shown.

3 Make the boom.



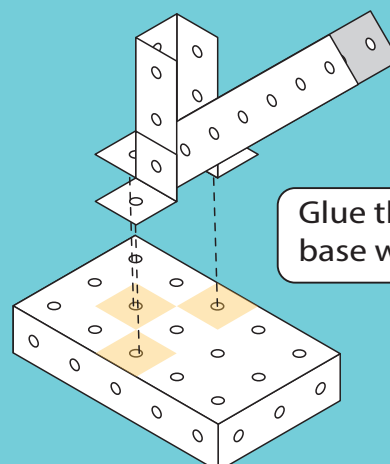
Trim the 175mm beam
and fold as shown.

4 Fit the boom.



Glue the trimmed end of the boom into the 75mm
beam as shown. Fix the boom at 50 degrees.

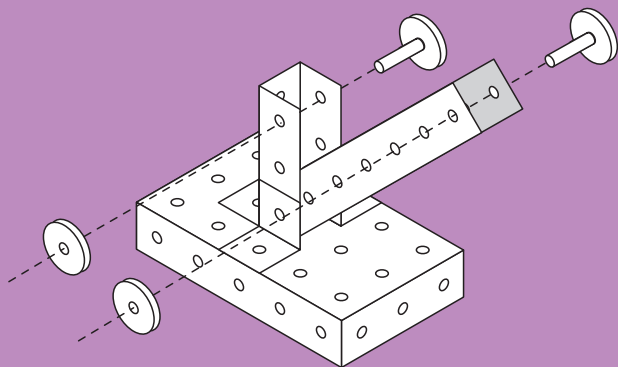
5 Fit the boom assembly.



Glue the boom to the
base where shown.

6 Fit the axles.

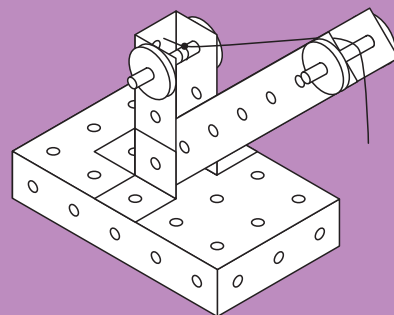
Use two 50mm axles. Fit a 25mm disc to one end of each axle.



Fit the axles where shown and fit a 25mm disc onto the ends.

7 Tie the string.

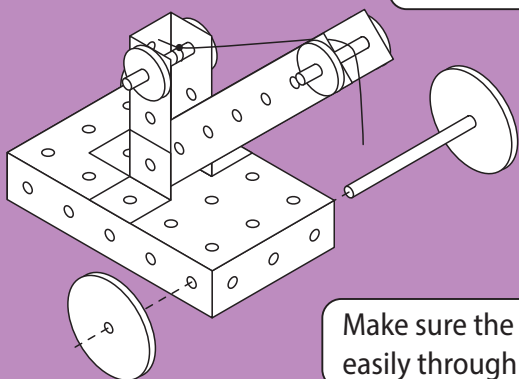
Tie one end of the string to the winder axle and wind the string a little way.



Pass the end of the string over the top axle.

8 Fit the front wheels

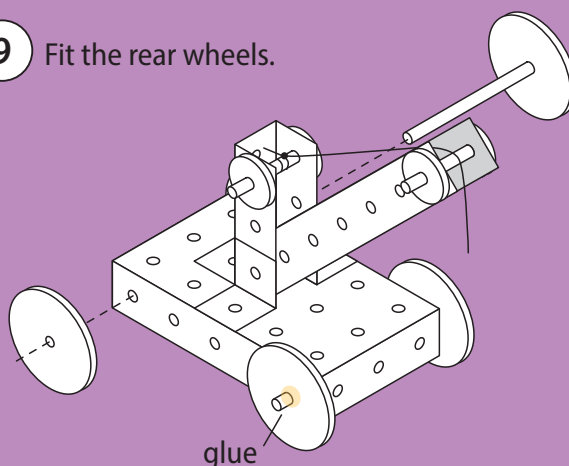
Use a 100mm dowel axle.



Make sure the axles turn easily through holes.

Fit a 50mm wheel to one end of the axle and pass it through the base. Fit another 50mm wheel.

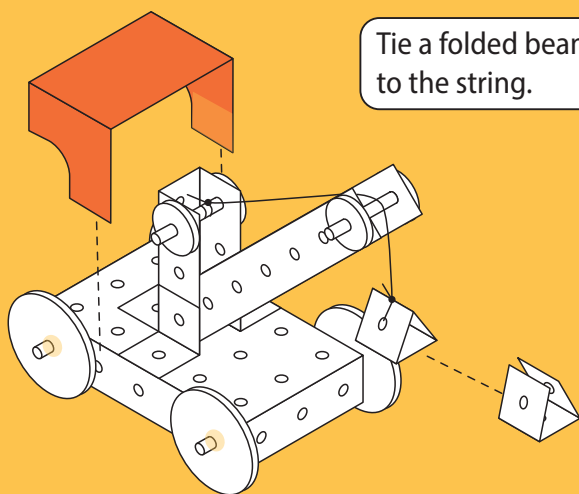
9 Fit the rear wheels.



Fit the rear wheels and axle in the same way. Glue the wheels to the axles.

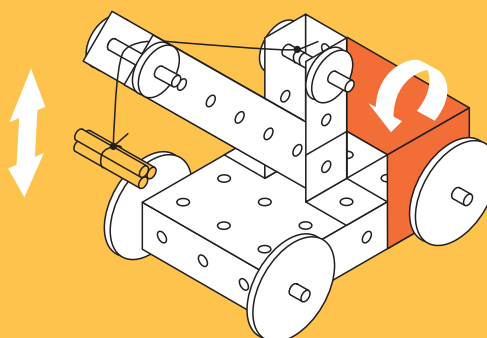
10 Fit the panels.

Tie a folded beam to the string.



Print or copy the panels. Cut out, fold and glue in place. Or design and make your own!

11 Operate your Mobile Crane!



Wind the string so it is tight on the winder axle. Continue turning and the load will rise. Turn the winder the other way and the load will lower.

Card Panels



Print and cut along the solid lines and fold along the dotted lines of the panel.

Alternatively, copy the panels onto thin card and cut and fold in the same way. Or you can design and make your own body panels!

25mm

25mm