

KIDDER MAG-CAR

MATERIAL LIST

1 - BASSWOOD (83-BW1010) - 24"



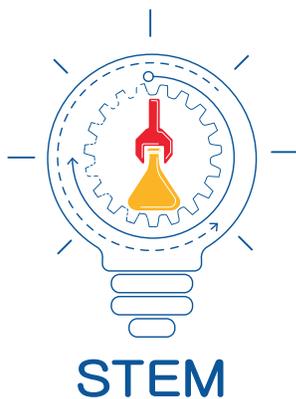
1 - DOWEL (83-2002B02) 16"



1 - STRAW (19-1022LG) 8"



4 - MDF WHEELS (83-1249-00) 2 - MAGNETS (80-3560-00)



S.T.E.M. CROSSOVERS

1. Magnetism
2. Understanding Matter and Energy
3. Forces acting on structures and mechanisms
4. Forces causing movement
5. Design and build
6. Movement

Magnetic propulsion is a new kind of technology which uses a magnet's natural ability to push another magnet away. When controlled, the magnet's push can be used to propel another magnetic object.

NOTE

Follow this instruction sheet, It is your guide for assembly of the pre-cut parts for the Kidder Mag-car. Medium grit sandpaper should be used to finish sanding the sharp corners, Always go with the grain if possible. Use glue sparingly and leave reasonable amount of time for drying.

STEP 1

Cut the basswood to four pieces. Two 4 inch pieces and two 2 inch pieces.

STEP 2

Glue them firmly together as shown.

STEP 3

Cut 2 straws each 2 inches in length and glue them to the bottom of the 2 inch pieces of basswood.

STEP 4

Cut 2 dowels each 3 inches in length and insert them into the straws.

STEP 5

Attach the 4 MDF wheels to the ends of the dowel and glue them together.



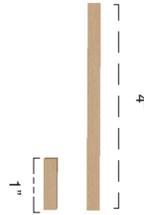
STEP 6

Glue the piece of magnet to the rear end of the car.



STEP 7

Cut the remaining basswood to 2 pieces of 1 inch and 4 inches respectively.



STEP 8

Cut the bottom of the 4 inch basswood at a 45 degree angle.



STEP 9

Glue the two basswoods together as shown in the image.



STEP 10

Glue the magnet on to the basswood with the magnet repelling the magnet on rear of car.



REQUIRED KIDDER TOOLS

1. Hacksaw - CAT# 50-235
2. Mitre cutter - CAT# 83-1126-00
3. Bench hook - CAT# 83-1150-10
4. 3" c-clamp - CAT# 83-1151-00
5. 150 ml wood glue - CAT# 83-1749-00
6. Glue gun low temp - CAT# 80-480-244
7. Glue sticks 500/pkg - CAT# 80-4854450
8. Can also swap out straws and hand drill a hole with CAT# 83-1133-00 or 83-1133FSK
9. Medium grit sand paper - CAT# 80-2817-06