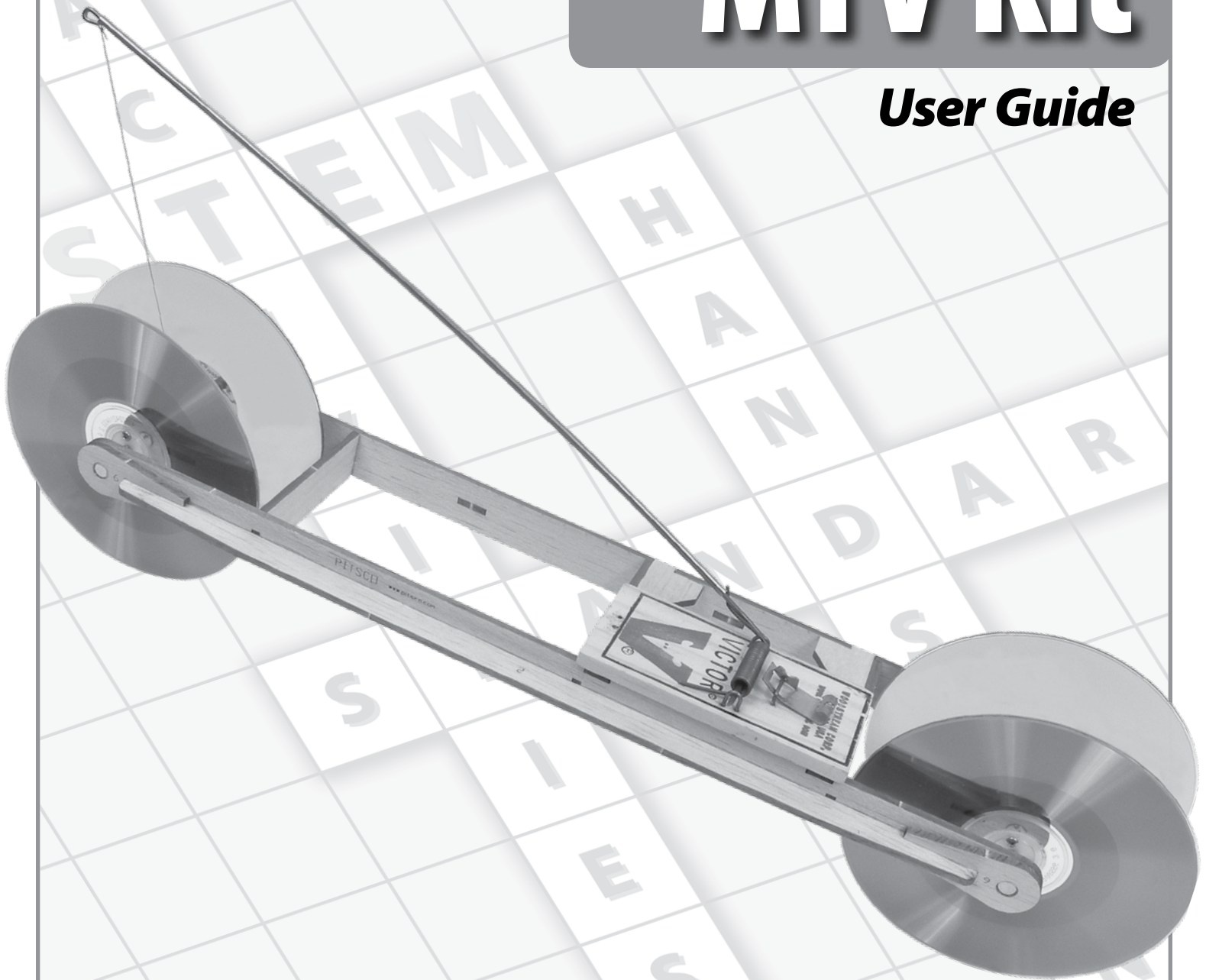


EZ Mag MTV Kit

User Guide



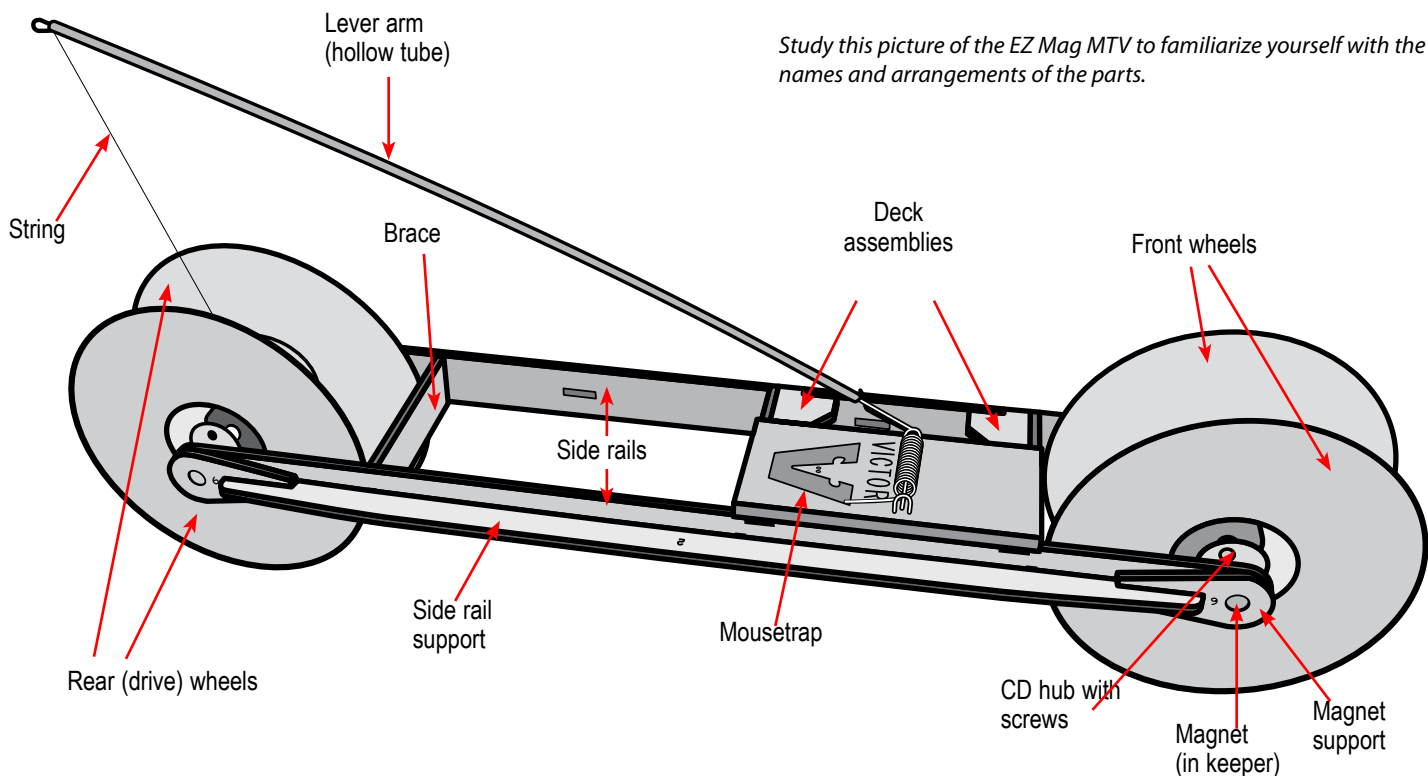
Materials Included

The EZ Mag MTV Kit should contain the following items. If anything is missing, call Customer Service at 800-358-4983.

- Two sheets of balsa wood with laser-cut parts (see page 3 for detailed descriptions)
- Plastic straw
- Mousetrap
- 4 CD wheels
- 4 CD hubs (on font)
- 12 screws
- 4 neodymium magnets
- 4 bushings (on font)*
- 2 axles
- String
- String anchor (on font)
- 12" hollow tube
- Instructions

*The bushings are not used on the EZ Mag MTV Kit but can be used on a traditional mousetrap vehicle.

Assembled EZ Mag MTV



Tools and Materials You Will Need

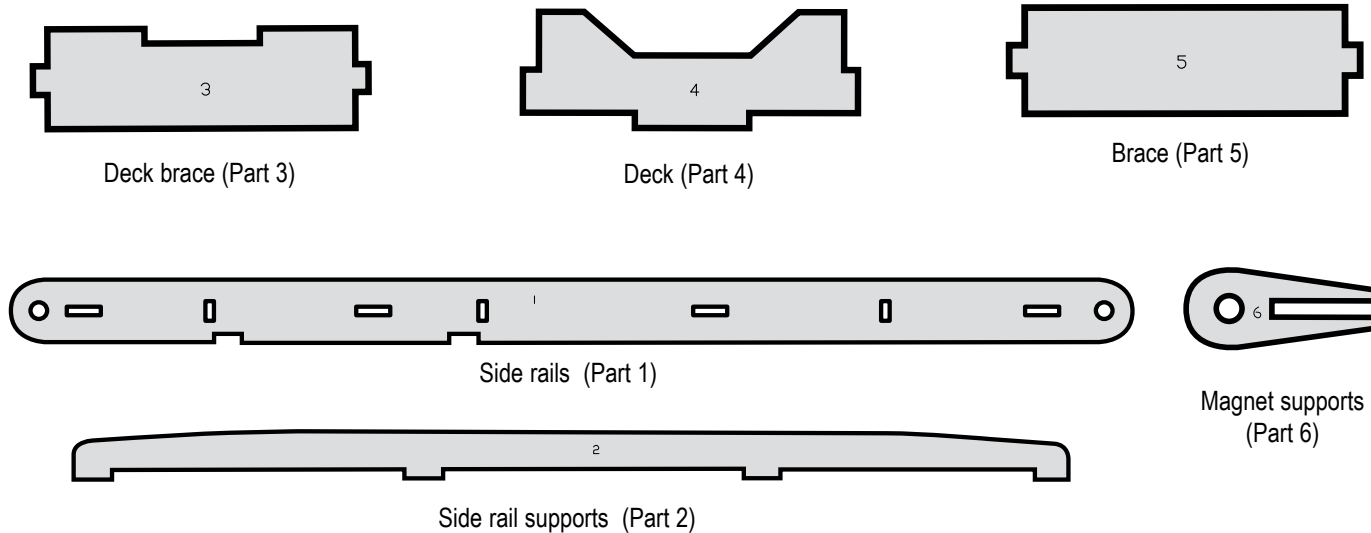
- Small scissors with pointed ends
- Small Phillips screwdriver
- Glue such as Pitsco HD Bond Adhesive
- Ruler
- Needle-nose pliers
- Wire cutters
- Paint and decals to decorate your vehicle

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Chassis Parts (not shown actual size)



Assemble the Chassis

Follow these steps to construct the chassis as pictured in Figure 1.

1. Pop out all the laser-cut balsa wood parts. Note that there is more than one of some parts and each part is numbered.

Part 1 = Side rails, quantity 2

Part 2 = Side rail supports, quantity 2

Part 3 = Deck brace, quantity 2

Part 4 = Deck, quantity 2

Part 5 = Brace, quantity 1

Part 6 = Magnet supports, quantity 4

For easy identification, these numbers are noted in the following instructions.

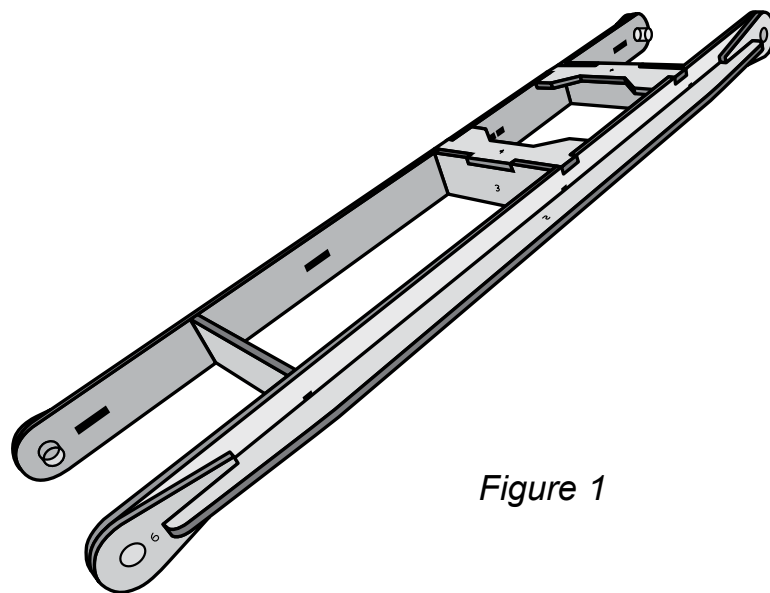


Figure 1

2. Select one of the side rails (Part 1) and one of the side rail supports (Part 2). Apply a bead of CA glue along the slotted edge of the side rail support (Figure 2) and insert it into the slots on the side rail (Figure 3 on next page).

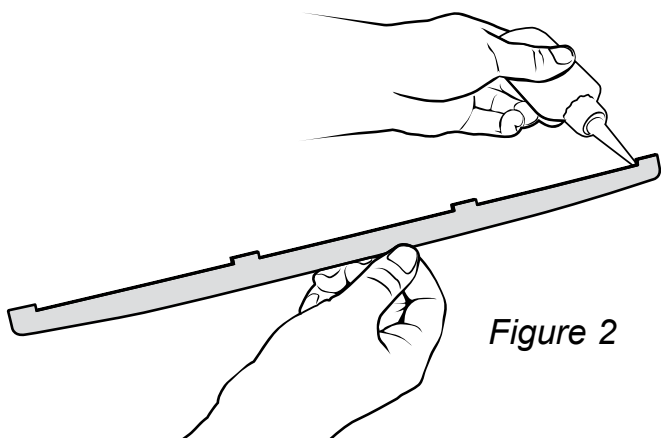


Figure 2

- Repeat Step 2 to assemble the second side rail pieces.
- Locate one of the magnet supports (Part 6) and apply a bead of glue along the *inside* edge (Figure 4 below). Slide the magnet support onto the side rail support until the holes of the magnet support and side rail are aligned (Figure 5).

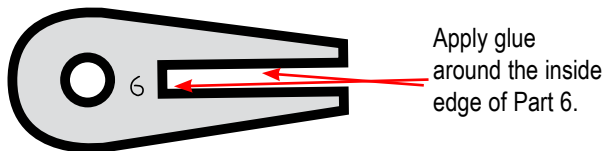


Figure 4

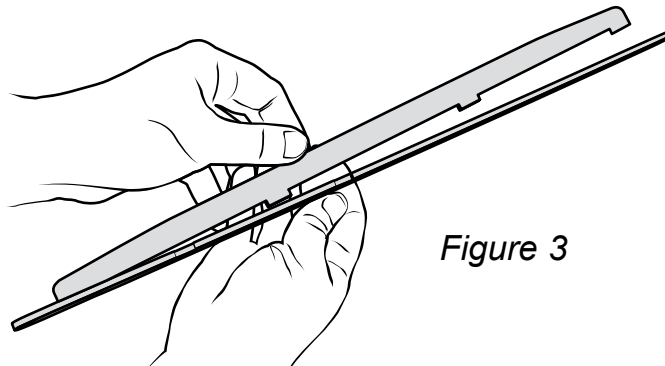


Figure 3

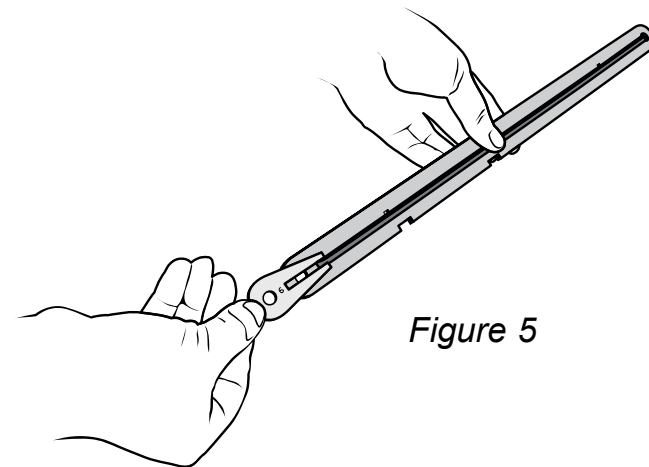


Figure 5

- Repeat Step 4 to attach the three remaining magnet supports as seen in Figure 10.
- Locate the deck (Part 4) and the deck brace (Part 3). Apply a bead of glue along the inset edges of Part 4 (Figure 6). Then insert the tab of Part 4 at a 90-degree angle into the slot of Part 3 (Figure 7). Hold the assembly in place until the glue dries.
- Repeat Step 6 for the other deck assembly.
- Place a bead of glue along both ends of the deck assemblies (Figure 8) and insert them in the slots in the side rails (Figure 9).

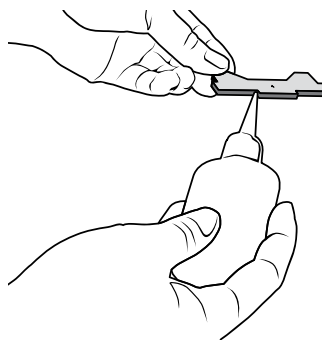


Figure 6

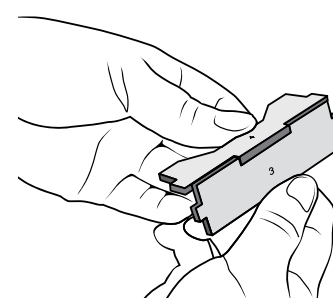


Figure 7

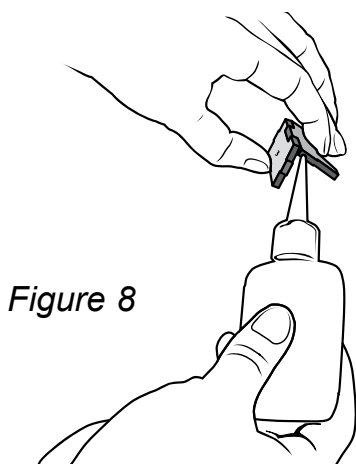


Figure 8

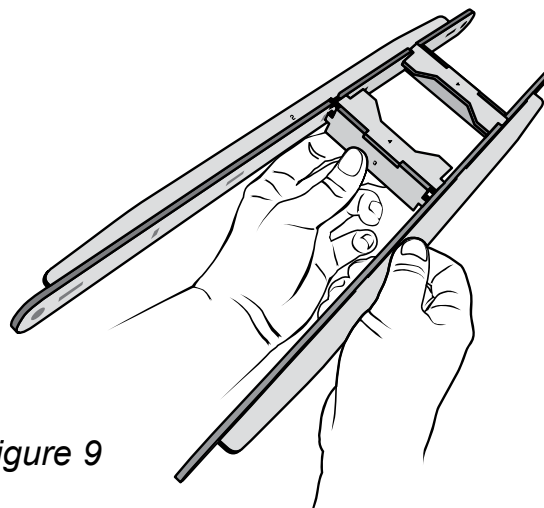


Figure 9

9. Locate the brace (Part 5). Apply glue to each end and slip it into the remaining slots in the side rail (Figure 10).
10. Using a ruler, measure, mark, and cut four 1/2-inch pieces from the straw.
11. Cut each piece of straw lengthwise (Figures 11a and 11b).
12. Insert a magnet into each piece of straw.
13. From the outside of the chassis, slide a straw-covered magnet through each of the four holes in the ends of the side rails.

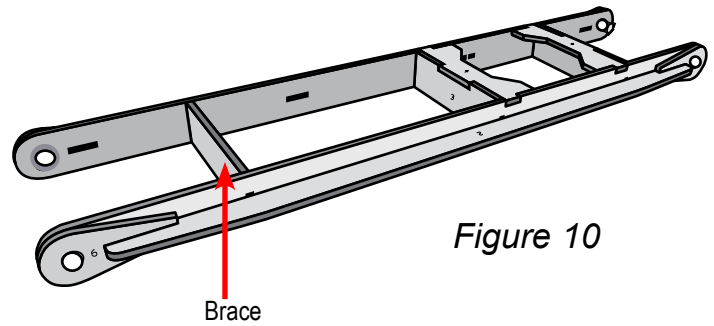


Figure 10

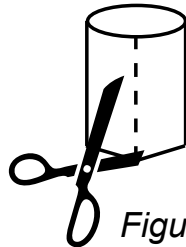


Figure 11a

The magnet should be flush with the chassis and the straw should poke through the other end (Figure 12). The straw forms the *keeper* – a device that keeps the axles from pulling out of the magnetic field.

Your chassis should now look like Figure 1 on page 3.

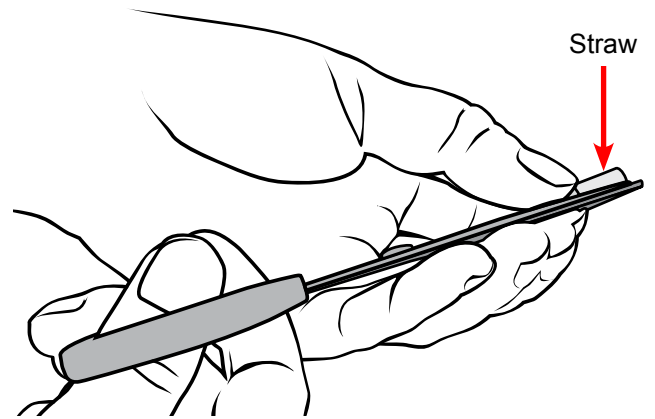


Figure 11b – Scissors cutting straw

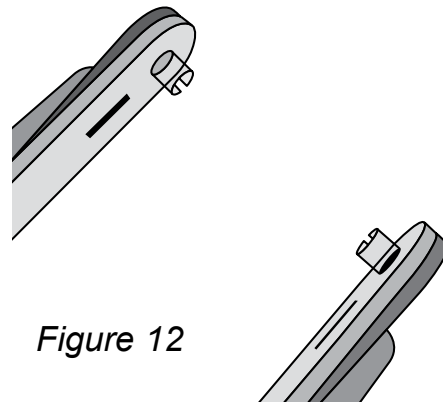


Figure 12

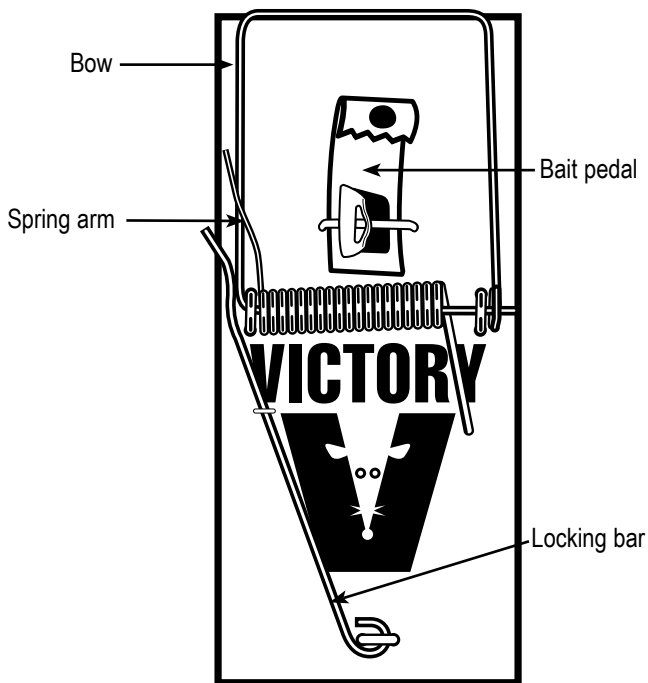


Figure 13a –
Mousetrap parts

Prepare and Attach the Mousetrap

1. Locate the mousetrap and note its parts (Figure 13a). With needle-nose pliers, remove the locking bar and bait pedal (Figure 13b). With wire cutters, snip off the right side of the bow (Figure 13c). Set aside the end you cut off. Using needle-nose pliers, straighten the bow (Figure 13d).
2. Locate the hollow tube. Slide it onto the straightened bow (Figure 13e) to make the lever arm. Make sure the spring arm of the mousetrap rests on *top* of the lever arm (tube) as shown in Figure 13e.
3. Take the piece of bow you cut off in Step 1. If necessary, cut off the end to make the piece straight.
4. Use the needle-nose pliers to make a slight bend in the straight end of the bow piece. Insert this into the

hollow tube so the hook faces out. If the bow end doesn't fit snugly in the hollow tube, remove it and put more of a bend in the wire.

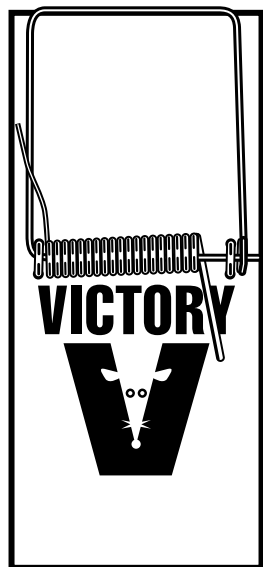


Figure 13b –
Remove the bait
pedal and the
locking bar.



Figure 13c –
Remove the
right side of
the bow.

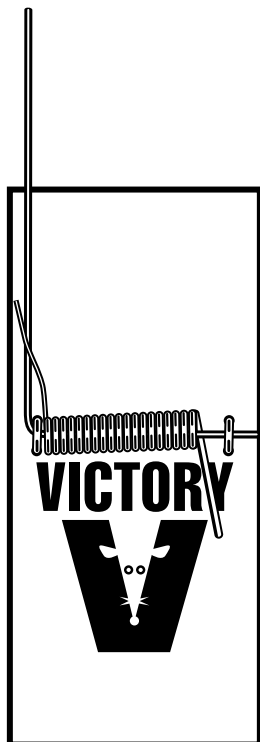


Figure 13d –
Straighten the
bow.

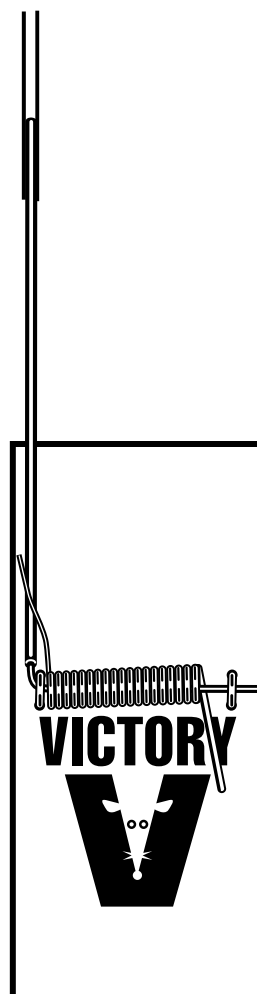


Figure 13e – Slide
the hollow tube
onto the bow and
under the spring arm.

- With the lever arm extending toward the front of the vehicle, glue the mousetrap to the upper right-hand corner of the deck and right side rail (Figure 14). Allow glue to dry at least two hours.
- Locate the string, and cut it to approximately 34 inches long. Tie one end of the string to the hook at the end of the lever arm. Tie a loop in the other end of the string (Figure 15).

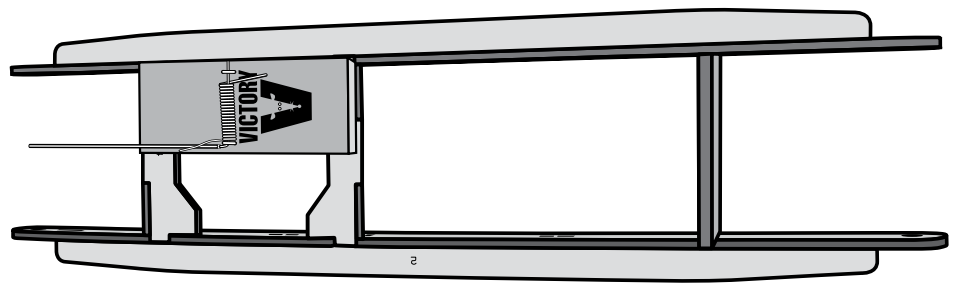


Figure 14

Assemble the Wheels and Axles

- Locate the axles and screws. Remove the hubs and string anchor from the front.
- Slide the string anchor onto one of the axles and center it (Figure 16).
- Slide a hub onto each end of the axles (Figure 17). The axle ends should protrude a quarter inch.
- Center a CD on each hub (Figure 18), insert screws, and tighten them with the Phillips screwdriver.
- Slip the wheel/axle assemblies between the magnets. (The axle with the string anchor goes on the rear of the MTV, underneath the keepers.) The magnets will hold the axles!



Figure 15

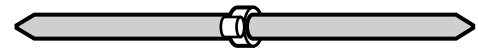


Figure 16



Figure 17

Get Ready to Roll!

Take your MTV to the area you've selected for racing. A long, uncarpeted hallway is ideal.

Slip the loop at the end of the string over the string anchor on the rear axle. While a friend pushes back and holds the lever arm, carefully rotate the rear wheels counterclockwise to wind the string around the rear axle. **Note:** The direction of winding should be opposite of the direction you want your vehicle to go.

When winding is complete, continue to hold down the lever arm, place your car on the floor, and let go. Your vehicle will speed forward as it is propelled by the power of the mousetrap's spring!

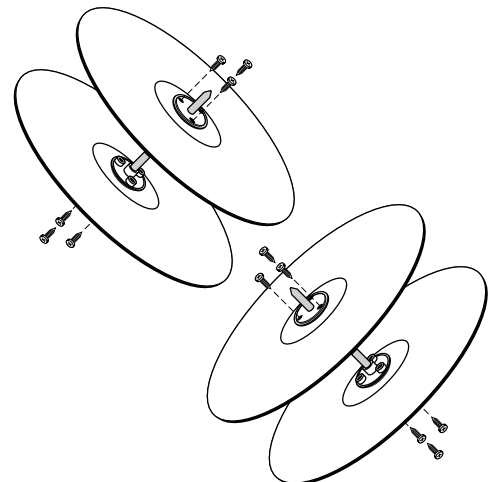
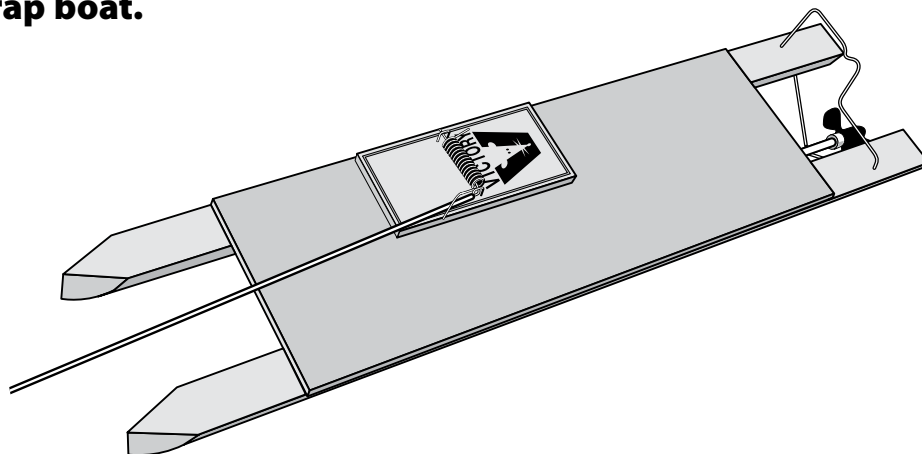


Figure 18 – Attach CD wheels to the axles

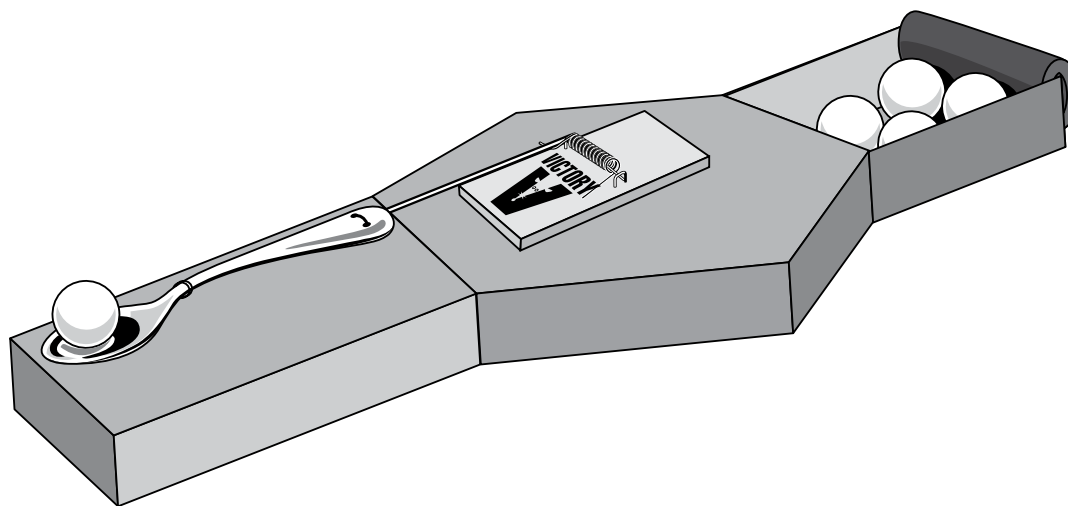
More Ideas for Mousetrap Fun!

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Will this design work? Why or why not?



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