

Building your own test track

Here are plans for a test track if you want the perfect surface to set up your car. Store-bought tracks can be very expensive but this track can be built using off-the-shelf parts from your local home center. You can build it in under an hour using basic tools. In the example below, I've built a 16-foot track. You could build an 8-foot track or you can add many 8-foot sections together and build a full 40-foot track.



1

Start with one piece of PVC lattice strip, $\frac{1}{4}$ " x $1\frac{1}{2}$ " x 8', and one piece of PVC trim plank, $\frac{3}{4}$ " x $3\frac{1}{2}$ " x 8'.



2

Mark center lines on both boards and screw them together with $\frac{1}{2}$ " lath screws. Any $\frac{1}{2}$ " screw with a wide head will work. Space the screws 24" apart down the boards.



3

Use the drawing on page 79 to determine the location of the slot. Drill a $\frac{3}{8}$ " hole at both ends of the slot.



4

Use a coping saw to remove the material between the two $\frac{3}{8}$ " holes.



5

Use a file or sandpaper to clean up the area around the hole. The hole doesn't need to be perfect.



6

This is the hardware you will need to build a spring-loaded starting gate. The complete list of materials is on page 79.



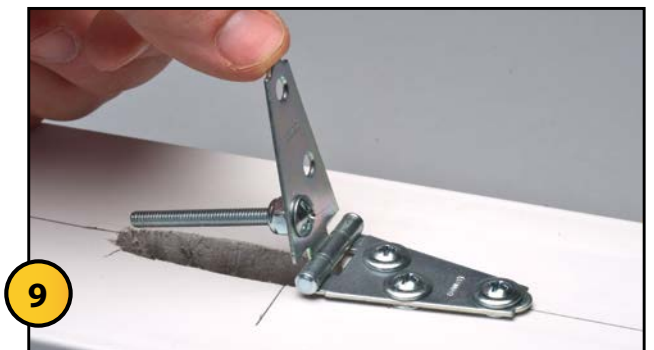
7

With the flat part of the strap hinge facing up, insert the 8-32 x $1\frac{3}{4}$ " machine screw into the hole noted in the drawing on page 79. Use an 8-32 nylon lock nut to hold the screw (starting pin) in place.



8

Use the drawing on page 79 to locate the position of the strap hinge. Place one #8 flat washer under each hole of the strap hinge and screw it in place.



9

Move the hinge up and down to test that it can freely move without hitting the sides of the slot.



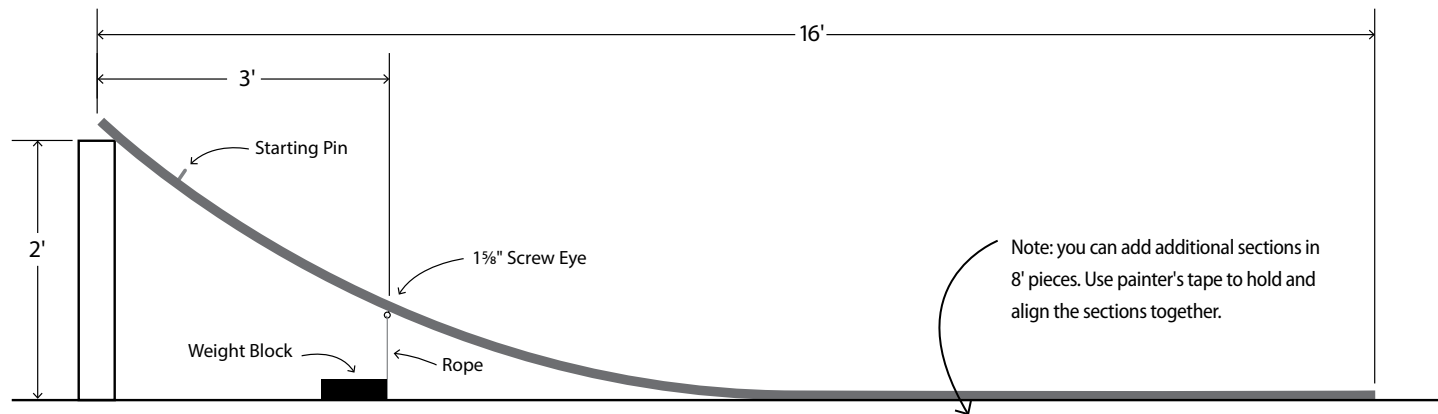
10

Position the $\frac{1}{2}$ " x $5\frac{1}{2}$ " mending plate in place to hold the strap hinge in its open position. Place two #8 flat washers under the pivot hole and screw it in place. Don't screw it down too tight or the mending plate won't be able to pivot. This mending plate will be the trigger to start the car down the track.



11

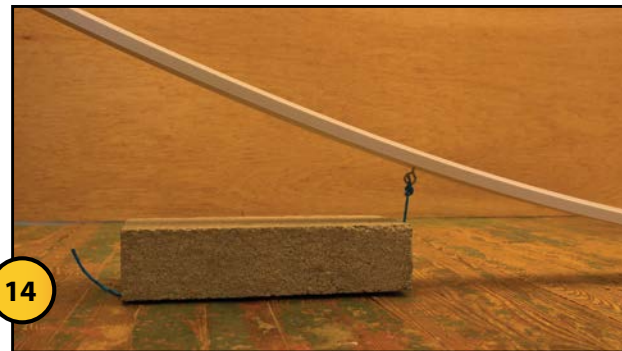
Attach one end of the spring to the strap hinge. See the drawing on page 79.



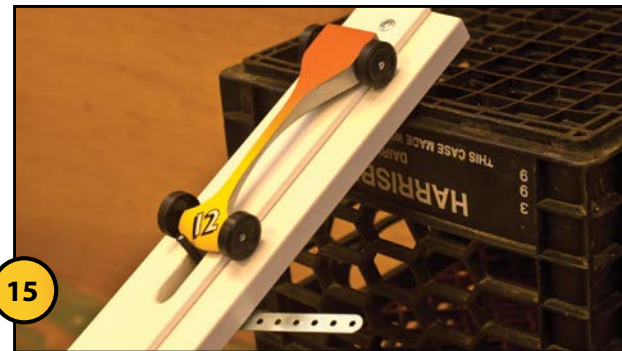
12 Stretch the spring and attach it to the bottom of the track.



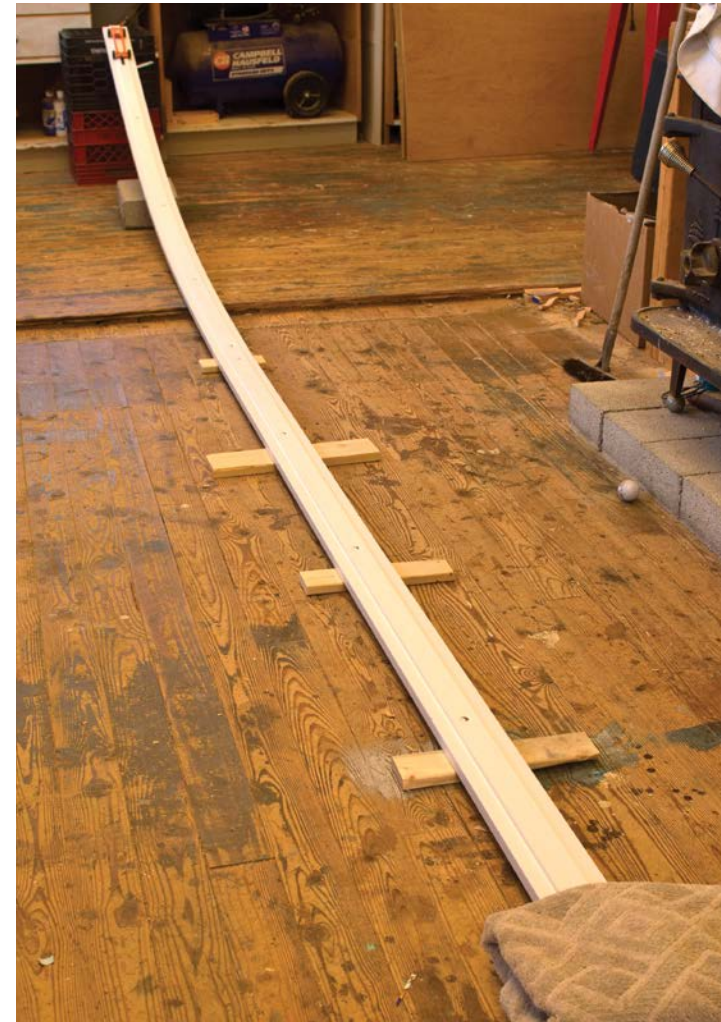
13 Wrap the threads of the bolt with electrical tape to protect the front of your cars.



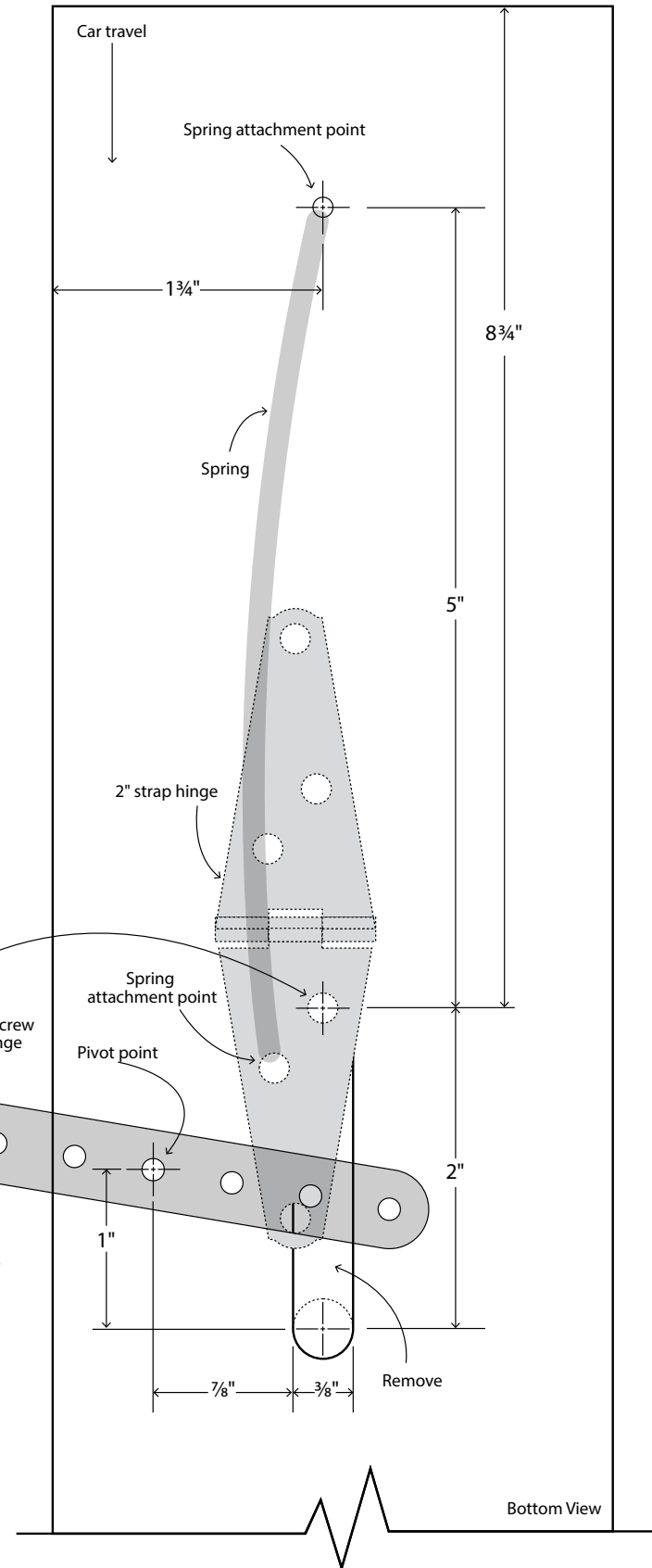
14 Attach a #8 1 1/8" screw eye to the bottom of the track. See the drawing above for the correct location. Tie a three-foot length of rope to the screw eye. Prop one end of the track about two feet off the ground. Pull the rope down toward the ground and place a heavy object on top of the rope to give the track a smooth bend.



15 Place a towel at the end of the track to stop the car. Swing the starting pin up through the track and rotate the mending plate over the hinge to hold the starting pin in an upright position. Set a car behind the starting pin and rotate the trigger counter-clockwise to release the car.



The completed 16' test track.



Material List

- 2 – PVC lattice strip 1/4" x 1 1/2" x 8'
- 2 – PVC trim plank 3/4" x 3 1/2" x 8'
- 1 – 2" strap hinge
- 1 – 8-32 x 1 3/4" machine screw
- 1 – 8-32 nylon lock nut
- 1 – 1/2" x 5 1/2" mending plate or wooden strip
- 1 – 3" x 1/4" spring
- 1 – #8, 1 1/8" screw eye
- 1 – weight block
- #8 x 1/2" lath screws
- #8 flat washers
- Nylon spring
- Electrical tape