

COMPILATION: Picket fence construction

Date: Wed, 24 Oct 2001

From: Daniel Montoya <dmontoya@JUNO.COM>

Subject: How do you make Picket Fences?

I want to make my own picket fences. What is the best material to use? Can I just walk into a hardware store and purchase Plexiglass? I would appreciate any and all hints.

Date: Wed, 24 Oct 2001

From: Michael Lach <mikelach@SPRINTMAIL.COM>

I've made them with plexiglass and black electrical tape, though I had trouble getting the spacing to be accurate. And try to get plexiglass that won't scratch very easily, for obvious reasons.

Date: Wed, 24 Oct 2001

From: Kate Wilcox <KateWilcox@AOL.COM>

I was able to make some using transparency plastic and electrical tape. I aligned the tape using a paper template. I weighted the plastic using paper clips. These were not long-lasting.

Date: Thu, 25 Oct 2001

From: Art Woodruff <woodruff_a@YAHOO.COM>

I went to my local Ace Hardware, bought a sheet of plexiglass, and had my shop cut it into strips. We use black electrical tape to make the stripes. We've tried other colors but some of them reflected enough light that they did not trigger the photogate.

I've been using the same set for at least five years. Some are broken and scratched but they do well. We have the students make their own by taping them and then pull the tape off for the next group.

Date: Thu, 25 Oct 2001

From: Douglas Vallette <dvallet@UCF.K12.PA.US>

It may be possible to make picket fences by printing a pattern on an overhead film. The copier quality overheads are usually quite thick. I have also seen clear adhesive plastic for envelope labels. Would this work?

Date: Thu, 25 Oct 2001

From: Kate Wilcox <KateWilcox@AOL.COM>

We used the printed picket fences (on transparency plastic) to mount on cars. I used the tape on the picket fences to drop to give it a bit more weight.

Date: Fri, 26 Oct 2001

From: Brenda Royce <brendar@CSUFRESNO.EDU>

I have made picket fences from post-it notes and rulers (both 12-inch and 1-meter). Cut the small post-its (for 12-inch rulers) in half crosswise through the sticky side and attach so the leading edges are 5 cm apart. These attach to carts pretty well and gave decent data.

I've done the same with bigger post-its and meter sticks to test the acceleration due to gravity. I had metal meter sticks with a hole on one end, so I was also able to attach hanging masses to the 'picket fences' to test whether mass affected the acceleration with moderate success.

These obviously must be made when needed, but for the few times I needed them, they did the job, and the students understood why they worked after they made them. If you plan on regular use, I would suggest the plexiglass and tape versions described earlier.

BTW: post-its also make good photogate flags. The small ones are 5 cm wide, and can be used to find inst. vel. of a cart with a photogate.

Date: Thu, 25 Oct 2001

From: Vonnie Hicks <VMHicks@AOL.COM>

A quick way to make picket fences, once the plexiglass is cut, is to use old computer tractor-feed mailing labels. Peel up all but the ends of every other label, place the plexiglass next to them, and paste them down. The alignment can be quite good if this is done with care, and the exercise in calibrating the spacing (and uncertainty) is useful as well.

Date: Sun, 28 Oct 2001

From: Janice Hudson <jmHUDSON@WORLDNET.ATT.NET>

I have made picket fences from balsa wood (1/8 in width) and poster board. Cut 2 pieces of balsa wood the length of the picket fence. Cut eight pieces of poster board the width of the black stripes on the picket fence. Lay the balsa pieces parallel and tape the poster board to the balsa (perpendicular to the balsa). They work very well for free fall as long as they are not dropped from too far above the photogate.

Date: Mon, 29 Oct 2001

From: Tom Brestel <tbrestel@ESU11.ORG>

Have your CAD person draw up the lines you want using CAD and draw them to scale. Then either print them out on transparency paper or use an old thermal transparency machine. Attach them to your Plexiglas or weight the bottom and forget about the Plexiglas. You may need to double the thickness so the photogates can detect the edges.

I have done this on a much smaller scale and attached them to the tops of Hot Wheels cars and they work fine.