

Bar Tape

(Order Code TAPE)

Bar Tape is a 3 m long piece of flexible plastic that has alternating opaque and transparent bars with a spacing of 1.524 cm. The tape can be used with Go Direct® Photogates (order code GDX-VPG) or as replacement tape for the Photogate Bar Tape Kit used with Vernier (BTD) Photogates.

The tape can be attached to objects and pulled through the photogate. This allows you to conduct experiments much like what you would do with a “ticker tape timer”. This includes the following experiments:

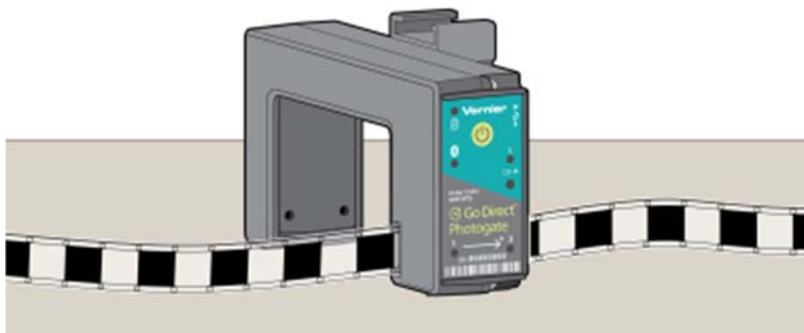
- Study the motion of a toy car.
- Study the motion of air powered rockets and other toys.
- Study the motion of a person as they hold the tape and walk away from the photogate.

What's Included

- 3 m section of Bar Tape (1)

Using Bar Tape with a Go Direct Photogate

Thread the Bar Tape through the bar tape guide built into the sensor as shown below. Attach the Bar Tape to the object.



Setting up the Data Collection Software

The details of photogate timing settings will depend on the software you use. The Bar Tape is most often used with the Linear Motion/Motion Timing photogate mode with the Bar Tape selected as the object.

Using Bar Tape Like a Ticker Tape Timer

Thread the Bar Tape through the bar tape guide and attach it to the object whose

motion you are studying, e.g. toy car. The tape can be secured to the object with a piece of cellophane or double-sided tape. You will probably want to trim the Bar Tape to a shorter length as appropriate for your experiment.

Using the Bar Tape Like a Small Picket Fence

- Cut off a short section of the Bar Tape (about 9 cm) and attach it to a piece of clear plastic. The miniature picket fence will produce very nice motion graphs when dropped through a photogate.



- Attach a short section of the Bar Tape (10–20 cm) to a piece of clear plastic and mount it horizontally at the top of an air track glider. Mount your photogate so that the Bar Tape interrupts the beam as the glider passes. This will allow you to produce motion graphs of the glider motion.

Additional accessories for motion timing with Photogates

- Picket Fence (order code PF) is 38 cm long and has opaque bars every 5.00 cm. It is designed specifically for free fall experiments.
- Cart Picket Fence (order code PF-CART) has two sides: A single 5 cm wide bar and a set of 13 bars with 1 cm spacing.
- Photogate Bar Tape Kit with guide for use with Vernier Photogates (order code TAPE-VPG)



13979 S. W. Millikan Way • Beaverton, OR 97005-2886
Toll Free (888) 837-6437 • (503) 277-2299 • FAX (503) 277-2440
info@vernier.com • www.vernier.com

Rev. 4/4/2024

Go Direct and other marks shown are our trademarks or registered trademarks in the United States. All other marks not owned by us that appear herein are the property of their respective owners, who may or may not be affiliated with, connected to, or sponsored by us.

