

# Eddy Current Brake

(Order Code DTS-ECB)



The Eddy Current Brake is a braking mechanism for use with our Dynamics Cart and Track System (order code DTS) carts and Go Direct<sup>®</sup> Sensor Cart (order code GDX-CART).

As the cart moves over the track, the magnets in the Eddy Current Brake create an electromagnetic drag on the cart that is proportional to the cart's speed.

The Eddy Current Brake is not compatible with older metal carts that were part of the discontinued Vernier Dynamics Systems (order code VDS) sold from 2005 to 2012.

## Assembly

Insert the desired number of magnets into the Eddy Current Brake.

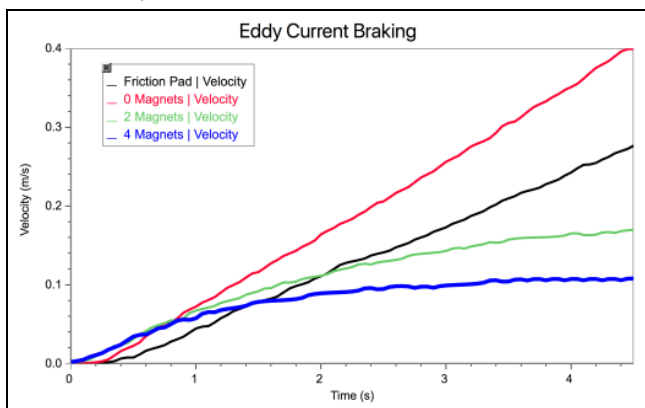
The Eddy Current Brake connectors swivel to allow 4 mm of height adjustment when installed in a cart.

- When the DTS stamp on the connector is upright, it is set at the correct height for our DTS carts.
- When the GDX stamp on the connector is upright, it is set at the correct height for our Go Direct Sensor Cart.

Remove both collision tabs from one end of the cart and insert the Eddy Current Brake into the exposed slots.

## Sample Experiments

- Investigate how the number of magnets and their position in the Eddy Current Brake change the induced drag.
- Compare the braking force created by the brake to that of our Friction Pad (order code DTS-PAD).



*The shape of the velocity curve differs between the Friction Pad and Eddy Current Brake.*

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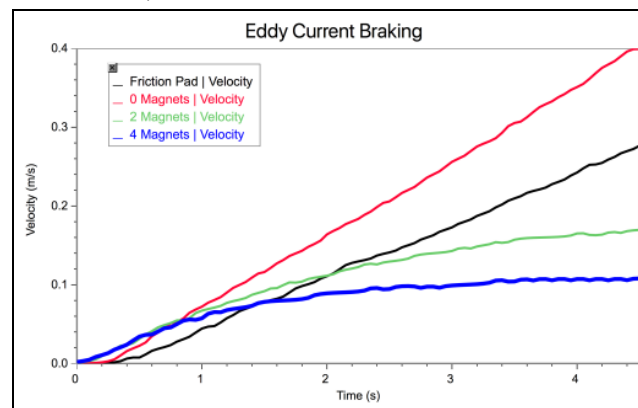
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## Warranty

Vernier warrants this product to be free from defects in materials and workmanship for a period of five years from the date of shipment to the customer. This warranty does not cover damage to the product caused by abuse or improper use.

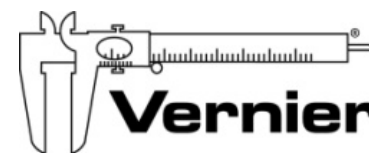
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