

Eddy Current Brake

(Order Code DTS-ECB)



The Eddy Current Brake is a braking mechanism for use with carts from our Dynamics Cart and Track Systems. Supported carts include DTS Standard and Plunger carts (order code DTS-CART-S and DTS-CART-P), Motion Encoder Cart (order code DTS-CART-MEC), and Go Direct[®] Sensor Carts (order code GDX CART-G and GDX-CART-Y).

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 speed of the cart.

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 magnetic tabs 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 Standard, Plunger and Motion Encoder carts.
- When the GDX stamp on the connector is upright, it is set at the correct height for our Go Direct Sensor Carts.

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

Suggested Activities

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

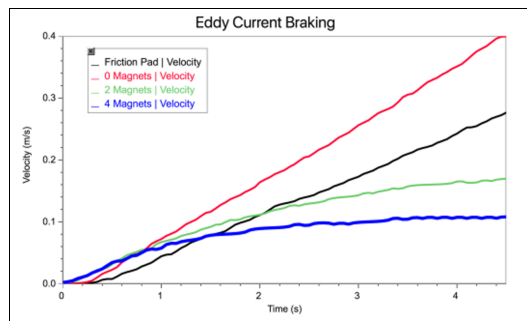


Figure 1 The shape of the velocity curve differs between the Friction Pad and Eddy Current Brake.

Warranty

Warranty information for this product can be found on the Support tab at www.vernier.com/dts-ecb

General warranty information can be found at www.vernier.com/warranty



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