

## Implementing a STOP Command

*Purpose: This application note presents a sequence of commands to stop a vehicle prior to its arrival at a destination.*

Once a vehicle is under an order, it will continue to attempt to reach the destination. If your application wants to STOP a vehicle prior to arrival at it's destination but keep other vehicles moving on the same path, repeat the vehicle order that was previously issued with a velocity of zero.

Step 1: Order the vehicle that you want to stop with the same parameters, (especially the acceleration, position or station, etc) but with a velocity of zero. If you don't use the same acceleration as the original order, the node controller will reject the command.

Step 2: Examine in vehicle status that the velocity is at or below the arrival velocity tolerance (close to or at zero -- typically 0.010 m/s). At this time, all motor blocks involved with whatever headway the vehicle had allocated to it are cleared.

Step 3: Order the vehicle to the position it is reported at, once step #2 determines the vehicle is stopped by checking velocity is close to or at zero.

If you perform just steps 1 and 2, its equivalent to issuing a suspend command on the path, but only working with one vehicle. That is to say, the vehicle stays under the original ultimate order and just sits there once stopped. The motor blocks involved in headway at time of step 2 are cleared once vehicle is stopped.

If you perform all 3 steps, it's the same as ordering the vehicle to wherever the current target is and it arrives once at that target -- step 3 will ensure that you get an arrival status back for this vehicle.

To get the vehicle moving again, just give it a new vehicle order.

Please refer to the related documents for additional information on how to issue a vehicle order and to get the status.

### Summary

To STOP a vehicle that is currently under an order, just repeat the original order with a velocity of zero.



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**Related Documents:**

990000436 Host Controller TCP Communication Protocol User's Manual

990000437 Host Controller EtherNet/IP Communication Protocol User's Manual

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**More Information**

MagneMotion website: [www.magnemotion.com](http://www.magnemotion.com)

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