 Activity

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|  | Stop and Go Code the BaseBot to travel to different locations! |

# Step by Step

1. [Build the BaseBot](http://link.vex.com/iq/builds/basebot/iq-2nd-gen-basebot) and open the BaseBot (Drivetrain 2-motor) template in VEXcode IQ.
2. Mark three different locations on an IQ Field using a dry erase marker or tape. Label the locations A, B, and C.
3. Measure the distance between the locations, and plan a route for the BaseBot in your engineering notebook. Your robot should begin at location A and stop at the other marked locations.
   * In what order will you travel to the stops? When will the BaseBot need to drive forward or turn?
4. Drag in a [Drive for] block. Change the parameter to the distance from the starting position to the first location. Download and run the project.
5. Continue adding [Drive for] and [Turn for] blocks to travel to the next two locations on the field. Download and run the project.

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| ‘LEVEL UP’  * **Over Here -**  Add more locations for the BaseBot to stop. * **Shortcut -** What is the shortest route from each of the different locations? Measure the distance and the angle to travel the smallest distance from each location to the next. | Pro Tips  * Add a [Wait] block when you reach each location. The BaseBot will wait a given number of seconds before travelling to the next location. |

**Standard:** CSTA (2-AP-10) Algorithms and Programming - Use flowcharts and/or pseudocode to address complex problems as algorithms.