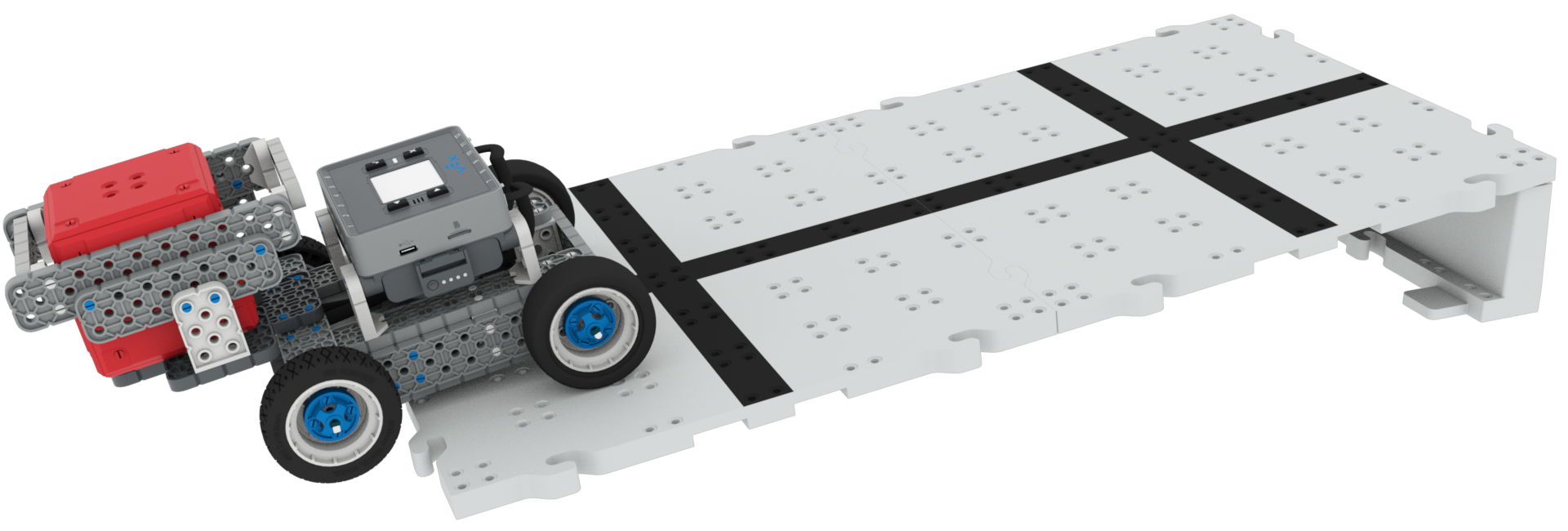
 Activity

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|  | Build a Wagon! Create an addition to the BaseBot to carry an IQ Cube up an inclined plane! |

# Step by Step

1. [Build the BaseBot](http://link.vex.com/iq/builds/basebot/iq-2nd-gen-basebot), then create an addition so that it can carry a cube. 
2. Create an inclined plane with pieces in the VEX IQ Kit or classroom materials.
3. Code the BaseBot to drive up the inclined plane in VEXcode IQ.
4. Experiment with different wheel combinations to find one that will enable your BaseBot to carry the cube up the inclined plane without slipping.

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| ‘LEVEL UP’  * **Add weight -** Add more weight to the wagon and see test the wheel combinations. * **Steeper incline** **-** Make the inclined plane higher, and see how this affects the BaseBot’s ability to carry the cube . | Pro Tips  * **Do some research on the Center of G**ravity   + Does it help you plan your design? |

**Standard:** NGSS MS-PS2-2 Motion and Stability: Forces and Interactions - Plan an investigation to provide evidence that the change in an object’s motion depends on the sum of the forces on the object and the mass of the object.