 Activity

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|  | Golf Course MowerCode your BaseBot to drive over the entire golf course, while avoiding the sandpits! |

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# Step by Step

1. [Build the BaseBot](http://link.vex.com/iq/builds/basebot/iq-2nd-gen-basebot) and set up a 4’x4’ field as shown on the right. The marked areas are the sandpits. Mark the sandpits with pieces from the IQ Kit or other classroom materials.
2. Open the BaseBot (Drivetrain 2-motor) template in VEXcode IQ, and create a project that has the BaseBot drive over all of the unmarked areas over the field which represents grass.
3. Avoid the sandpits! If your BaseBot drives into a sandpit you must start again from the beginning.
4. Start the BaseBot in the location shown in the image to the right. Download and run your project to test. Make changes to your project as needed and test again.
5. Try starting from different areas. How fast can you drive around the entire course?

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| ‘LEVEL UP’* **Add a Bumper Switch! -** code your BaseBot to back up and turn when it touches a wall on the course.
* **Add a ramp** - use a binder or other classroom material to create a ramp on the golf course that the BaseBot needs to travel across as it mows the grass.
 | Pro Tips* Use [Comment] blocks to organize your code!
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**Standard:** CSTA (2-AP-17) Modularity - Create procedures with parameters to organize code and make it easier to reuse.