**EV3 Lesson Ideas**

**Lesson 3**

Materials: EV3 robots- 2 per robot, Measured Distance- Student Workbook page 13, “Drive in a square using a loop block”: <https://youtu.be/1dZNr5eFeLA>

Objectives: Start to program robots, support students as they start to program.

Duration: 1hour

Lesson: Intro

* Get students back into their pairs and ask them to get their robot kits out and computer software open.

**Activity**

* Students will open their workbook to page 13, they will read over the equation for measuring a distance and getting your robot to that exact location using rotations.
* Have students practice one equation as a group. To do this, take two pieces of tape and place one down as a start line and the other as a finish line. Then measure the distance between, starting exactly where they are going to place their robot front axel and measuring to the middle of the finish line piece of tape. Next, take that measurement and place it in the equation.
* Distance in CM / Wheel Diameter (17.584) = Rotations. Students will now write a code that has their robot drive using “Move steering” block to that exact rotation amount.
* Next, using page 14 of the workbook, students can practice a few equations “Task Ten”.
* Then, students can use the mat or some tapped areas and practice measuring and driving to exact locations.
* Next, provide the students with the link to driving in a square, <https://youtu.be/1dZNr5eFeLA>

Students can watch this and try to program a perfect square. Set out a chair for them to drive around, they will also need to measure. Or, if you have access to a mat, use the black square on that. Another option is to use painters’ tape and tape out a couple different sized squares.

**Conclusion**

* Have students clean up the space and log off their computers.