

VEX Robotics in 9th Grade Science and Engineering

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Students Exposed to Coding

* Elementary School

- * Engineering in Science
- * Programming in Media

* Middle School

- * Engineering and Programming in Design and Make 1 & 2
- * Middle School Fab Lab (8th grade)
 - * Fischertechnik

* 9th Grade – VEX

- * Able to be differentiated to different abilities

RobotC Programming Language

```
task main
{
    wait1Msec(2000);

    //Clear the encoders associated with the left and right motors
    nMotorEncoder[rightMotor] = 0;
    nMotorEncoder[leftMotor] = 0;

    //While less than 1000 encoder counts of the right motor
    while(nMotorEncoder[rightMotor] < 1000)
    {
        //Move forward at half power
        motor[rightMotor] = 63;
        motor[leftMotor] = 63;
    }

    //Clear the encoders associated with the left and right motors
    nMotorEncoder[rightMotor] = 0;
    nMotorEncoder[leftMotor] = 0;

    //While less than 1000 encoder counts of the right motor
    while(nMotorEncoder[rightMotor] > -1000)
    {
        //Move in reverse at half power
        motor[rightMotor] = -63;
        motor[leftMotor] = -63;
    }
}
```

RobotC is based on the C programming language



