

# **Coding & Robotics**

(For all students ages 8-13)

Sponsored by Mount Laurel Community Education

**Instructor:** Nick Handley

**Room:** Mount Laurel Hartford School Room B110

## **Coding**

**Sessions:** July 10-14 from 10am-12pm, July 31-August 4 from 12pm-2pm

**Fee:** \$150/session

**Maximum Number of Students:** 16 students

Want to learn how to program? Not sure where to begin? Try 'Coding'! This beginner's course teaches students how to program with visual and text-based programming languages. First, students will learn how to program with a variety of programming languages. Then, students will focus their attention on the visual programming language called Scratch. Last, students will spend the remaining time focusing on the programming languages they like best!

Equipment Provided - Laptop computer, web browser software

Equipment Needed - Possible parent-supervised creation of various programming website accounts

## **Robotics 1**

**Sessions:** July 10-14 from 12pm-2pm, July 17-21 from 10am-12pm, July 24-28 from 10am-12pm

**Fee:** \$150/session

**Maximum Number of Students:** 16 students sharing 8 robotics kits

Want to learn how to build and program a robot? Not sure where to begin? Try 'Robotics 1'! This beginner's course teaches students how to build and program robots using LEGO MINDSTORMS NXT robotics kits. First, students will learn how to build a basic rover-style robot that can move, turn, and sense things in its environment. Then, students will learn how to program their robots to perform various behaviors (moving, turning, sensing the environment, playing sounds, displaying pictures, etc.). Last, students will demonstrate their newly-learned skills by solving a variety of programming challenges.

Equipment Provided – Laptop computer, LEGO MINDSTORMS NXT robotics kit, LEGO MINDSTORMS NXT-G software

Equipment Needed – Digital camcorder (smart phone, tablet) to record student creations if they desire

## **Robotics 2**

**Sessions:** July 17-21 from 12pm-2pm, July 24-28 from 12pm-2pm, July 31-August 4 from 10am-12pm

**Fee:** \$150/session

**Maximum Number of Students:** 8 students each assigned to their own robotics kit and resource set

Want to take your robotics knowledge further or explore robotics the way you want to? Try 'Robotics 2'! This choose-your-own-adventure course allows students to explore robotics on their own terms. This course comes at the request of several previous robotics course students. They wanted more time to see what they could do with the robot on their own, so here's your chance! Students will use a LEGO MINDSTORMS NXT robotics kit and LEGO MINDSTORMS NXT resource set to build any type of robot/device they choose. Students will also use LEGO MINDSTORMS NXT-G software to create programs to bring their robots/devices to life.

Equipment Provided - Laptop computer, LEGO MINDSTORMS NXT robotics kit, LEGO MINDSTORMS NXT resource set, LEGO MINDSTORMS NXT-G software

Equipment Needed – Previous attendance of Robotics 1 course or Mount Laurel Schools 6th Grade STEM course, digital camcorder (smart phone, tablet) to record student creations if they desire

## **Course Information**

Nick Handley

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856-231-5899 (ext 5014) Please leave a message

Website - <https://goo.gl/iZKbkW>

## **Registration Information**

Website - <https://goo.gl/G5TMah>