

ROBOCODE PARENT SUMMARY

This year's RoboCode Camp is going to be a thrilling, fun time!! Our goal for RoboCode is that each child gets the most programming, building and coding experience possible.

BUILDING AND PROGRAMMING:



Students will begin by learning all the parts of the NXT brick; what they do, and how they work.

Starting with our simplest robot, Domabot, we will open the door to the NXT programming environment. Learning the components of a robot and discovering the flow sequence of a series of commands will allow your students to advance to the programming challenges. All sensors can be added to this bot and it can be programmed to give your student

experience with each one. Once they are experts, we will move on to move complicated robots and programming. This robot can be programmed to play golf, dance and have a personality.



The Rattlesnake is a more involved building activity. This bot will rattle its tail to give a warning. If you get too close it will strike!

The rattlesnake allows for your student's creativity to be engaged. It can be set up in many ways as long as it is stable.



This build will use the ultrasonic sensor to "see" a person or object using sound waves much like a bat. This bot will be too fun!!



The Dragster: This building activity is going to make your students' heart race! It's all about gears, gears and more gears. How fast will the Dragster go? So fast it will pop a wheelie and race straight away down the track. Using three motors to achieve top speed, the dragster uses gears inside the motors and out, adding torque to increase speed.



4WD SumoBot: This sumobot is different from the others in that all 4 wheels have the power of force turning the bot. Other Sumo bots are hard pressed to stand up to this sumo bot in the ring. Students will get the opportunity to “wrestle” their bot.

CODING:



CodeCombat: Students will have a great adventure while they learn to code with CodeCombat. Choosing an Avatar to battle its way through levels a student must complete the challenge by writing the correct code and sequence to move on. With success the player gains gems which they can use to buy armor or skills to progress through the game.

We will begin learning Python but the program can be used to teach LUA, Java Script and more. CodeCombat is considered one of the best learning tools and can be used at home.