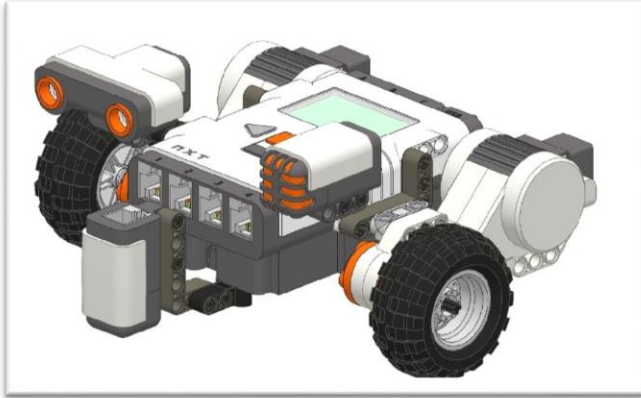# MINI BOTS PARENT SUMMARY

This years' Mini Bots camp/class is going to be a thrilling, fun time!! Our goal for Minibots is that each child gets the most programming experience they possibly can as their robots work for NASA, exploring a new planet.

Students will begin by learning all the parts of the NXT brick; what they do and how they work. This information will guide our young scientists as they build a new rover for NASA with the capability of following commands to explore the planet NXTopia. They must be extensively tested before they are sent to the planet.

The Domabot designers will need to successfully program basic movement, degrees, circumferences and sensor placement and programming. Once these challenges are met, programming will be required to test sounds to notify NASA when projects have been completed. And NASA specifically asked that the robot have a personality!

After the robots are finished with all the challenges it's time for a little bit of fun! These robots will learn to play a little golf on NXTopia and do the WAVE!

BUILDING AND PROGRAMMING:

Kids will build a larger model of the **Mini Golf Machine.** Imagine playing golf around the craters of the planet. This version of the golf machine is hand operated and has a lot more swing.

The **Baseball Batter** can easily be built on NXTopia. It must be tested out completely for the technicians and scientists that come to colonize the planet. They are going to need a way to relax. This activity will use a lever and an ultrasonic sensor to detect the ball coming its way. Once the sensor sees how close the ball is the programming will trigger the lever to swing away!

Your child's next challenge will be to build a game of their own that they can program and play on NXTopia!

After all the building and experimenting students can have a great time with **Scratch**!

Scratch programming is a fun and entertaining way to learn more about the thought processes needed for clarity and precision to create productive command sequences. We know, it sounds like a mouthful! It's surprising to think that we use sequences of steps every day without even thinking about it, like, just getting out of bed!

So easy to do when you don't have to think about it. But when you try to tell a computer to do something you need to be very clear with a command and its parameters.

Well, how do you teach children to use sequence thought to make something happen? You disguise it as fun!!

Scratch the website is https://scratch.mit.edu/scratch_1.4/. This is a free download!