



OoR Tech – Session Plan, SPRK Robot Intro

rev 20171206

Grade Range: All

Prerequisite: Block Based Programming

(10mins)

Intro to Sphero SPRK+ Robots; use "OoR Tech – SPRK Sensor Intro" program to show students how the robot uses sensors to interact with the world around it.

Relate robot sensors to human "sensors" by asking kids what "sensors" we have.

Explain our sense of balance vs the robot's (*intro to gyroscopes*).

(20-30mins)

Pre / New Readers+:

Introduce students to drive capabilities. Have students demonstrate ability to change robot colours, aim robot and move robot forward, backward and adjust robot speeds

Get kids to create first draw based program. Show them how to use the draw canvas to draw shapes and how the robot will play the shape back. Have students demonstrate ability to draw some simple shapes on draw canvas. Then have each student playback their shape while other students guess by watch the robot movement.

OR

(20-40mins)

Readers+:

Introduce students to drive capabilities. Have students demonstrate ability to change robot colours, aim robot and move robot forward, backward and adjust robot speeds.

Have students create first block based program. Show them roll and colour blocks.

Have students demonstrate ability to create a simple program where robot moves forward, stops, changes direction 180 then moves back to them (explain concept of degrees in a circle).

EXTRA: If students pick up curriculum very quickly or extra time is wanted from class, have them add a loop command to repeat the program they created above 4 times.

Then show them how to change the loop count to change how many times the robot executes the instructions in the loop (*intro to loop command and program flow concepts*).

(5-10mins)

Review covered content / wrap up questions / preamble to next session