# Voting Booth - NXT

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| **Suggested Time** | 90 minutes |
| **Challenge** | In this activity, set up an NXT "voting booth" to gather data using touch sensors. The presses will be recorded and plotted into a graph. |
| **Age** | 8 - 13 |
| **Topics** | Touch Sensors, Graphing, Data Collection & Analysis |
| **Subjects** | Math & Science |
| **Programming Themes** | Touch Sensor Data Collection |
| **Related Math & Science Concepts** | Scalar Quantities |
| **Materials** | • NXT <br> • 2 Touch sensors <br> • Voters |
| **Building Instructions** | 1. Attach 2 touch sensors to the NXT and wire each to the NXT inputs. |

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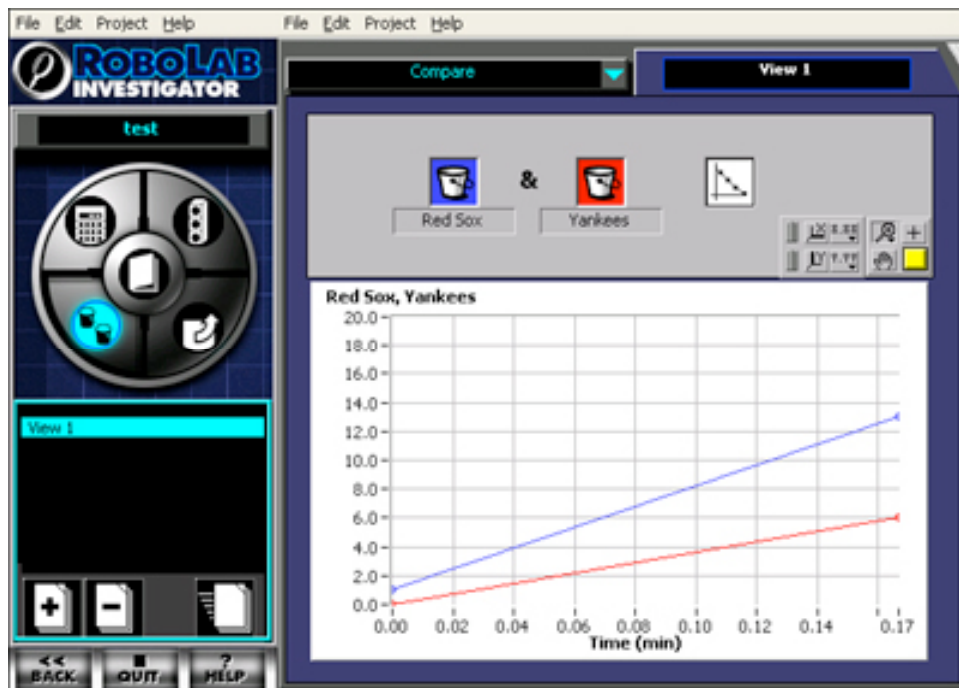
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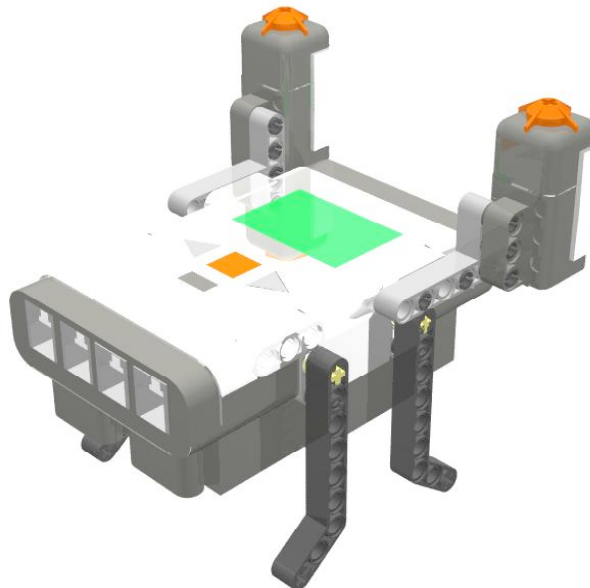
*Programming Instructions*

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1.    Using ROBOLAB Investigator, program the NXT to collect touches for a given period of time.
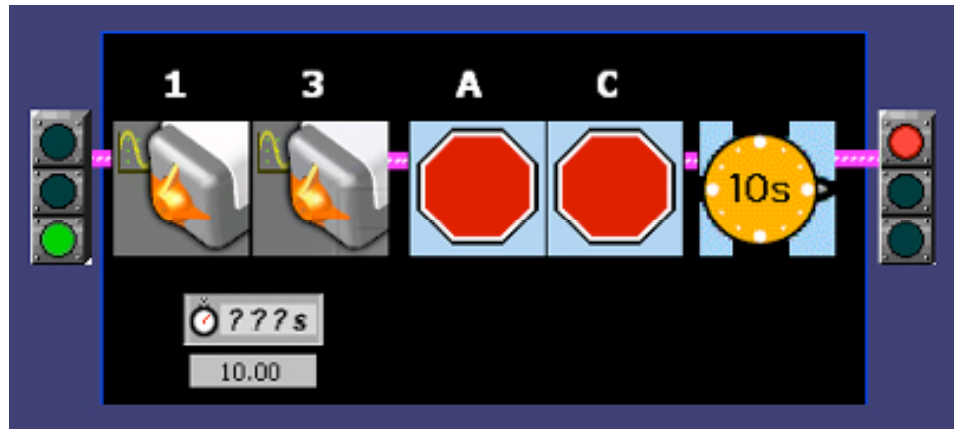


2.   Collect and upload your data. Plot your results.



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*In Action*

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Allow people to use your voting booth in order to collect data.
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### Related Activities
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- Bulldozer
- Platform 9 ¾
- Fan-tastic

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### Building and Programming References

- Building With Bricks
- Axle Uses
- Connector Pegs & Bushings
- The NXT
- NXT Motors & Wires
- NXT Touch Sensors

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### Knowledge Base

- Is it possible to load a program on 2 different RCXs from the same VI?
- How do I export data from Investigator to Excel?
- When I try to take data, my RCX shuts off!

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### Classroom Management

1.　Distribute Engineer's Planning sheet to students and have them develop a survey question.
2.　Distribute the direction packets and have students set up the program.
3.　When everyone has finished setting up ROBOLAB, have a group discussion about any difficulties people encountered.
4.　Distribute the LEGO materials and have the students construct their voting booths.
5.　Discuss a procedure to help everyone collect data in a timely and efficient manner.
6.　Allow time to collect and upload data.
7.　If possible, use a TV monitor and one of the computers to show the class some data. Have a class discussion on how to interpret the data for one of the group's questions.
8.　Allow students time to record their results in bar graph form and to write statements about their findings.