**How Sensors Work Lab**

Write yours and your partner’s names here:

Objective: Understand the relationship between how the EV3 sensors work and the robot’s response.

**Initial Claim:** The \_\_\_\_\_\_\_\_\_ sensor is able to sense its surroundings by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Reasoning:** (explain how this happens using science, cite one source)

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**Initial Model:** Draw what is happening scientifically that allows your sensor to sense its surroundings.

**Develop an investigation that will prove your claim true.**

**Scientific Question:** What is the effect of different\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Write independent variable here)

on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?

(Write dependent variable here)

**Hypothesis (prediction for which change will make the robot sense its surroundings):**

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**Procedure (steps for doing your experiment):**

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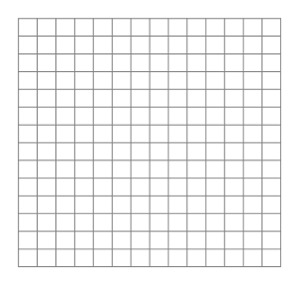
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**Data collection**(Make a table and graph below)**:**

Table:

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|  |  |  |  |  |
|  |  |  |  |  |

Graph:



**Final Claim:** After collecting our data, we know the \_\_\_\_\_\_\_\_\_ sensor is able to sense its surroundings by

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Reasoning:** (explain how this happens using science, use data in your explanation)

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**Final Model:** Draw what is happening scientifically that allows your sensor to sense its surroundings.