**Design Challenge: Robo-Zoo**

For this project, you will research, design, build, and program a robot that looks and behaves like an animal of your choice. Two groups cannot choose the same animal.

Use the criteria in the table below to help you complete your project by the deadline.

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| --- | --- | --- |
| Criteria | Points Possible | Points Earned |
| **Research:** Use the Internet to research the appearance and behaviors of your animal. **Record at least 3 characteristics (appearance or behaviors) and describe how you will use your NXT kit and/or program to simulate each characteristic.** | 6  (1 pt per characteristic,  1 pt per description) |  |
| **Design:** Use **only the parts from your NXT kit**. **Your design must be your own** (do not use building tutorials found online). **Make a sketch of your robot before you build it, then make a sketch of the final product and list what you changed and what remained the same**. You must include **at least** **TWO sensors.** | 6  (1 pt each for before/after sketch, 1 pt each for changes/same, 1 pt per sensor) |  |
| **Build:** Robot is **completely built by 12:00pm on the day of the Zoo Tour.** | 3 |  |
| **Program:** Create a program that causes your robot to behave like the animal. You must **use the two sensors** that you included in your design. Your program should **be ready by 12:00pm on the day of the Zoo Tour.** | 4  (1 pt per sensor used, 2 pts ready on time) |  |
| **\*Peer Evaluation:** Does your robot look like your animal? | 3 |  |
| **\*Peer Evaluation:** Does your robot behave like your animal? | 3 |  |
| TOTAL POINTS | 25 |  |

\*On the day of the Zoo Tour, your classmates will evaluate your design and program for the “Peer Evaluation” Criteria. For each question, Yes = 3, Sort Of = 2, No = 1. Class scores will be averaged to determine your grade for these portions.

**The Zoo Tour will take place on Friday, May 1st.**