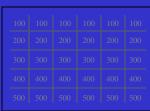
Are we like robots? JEOPARDY

Parts of NXT	Parts of Human	NXT Movement	Human Movement	Humans Vs. NXT	Grab Bag			
▶▶▶ Final Jeopardy ◀◀◀								
<u>100</u>	100	<u>100</u>	<u>100</u>	100	<u>100</u>			
<u>200</u>	<u>200</u>	200	<u>200</u>	<u>200</u>	<u>200</u>			
<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>	<u>300</u>			
<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>	<u>400</u>			
<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>			

Name the part of the NXT which understands its program and follows it.

Question

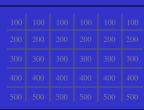
Q: What is the NXT computer brick?



Name the part of the NXT that allows it to move

Question

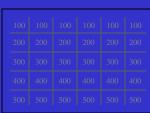
Q: What are the motors?



Name the part of the NXT that reads input from the surroundings

Question

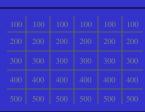
Q: What are sensors?



Name the part of the NXT that transmits signals between the NXT computer brick and the sensors

Question

Q: What are the wires?



Describe the two different kinds of sensors

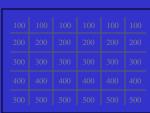
Question

Q: What are those that just detect the presence of a stimulus and those that can detect amounts of a stimulus?

This is the part of the human body which commands the rest of the body

Question

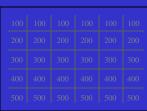
Q: What is the Brain?



This part of the human body allows us to move

Question

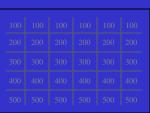
Q: What are the muscles?



Give an example of a sensor in your body

Question

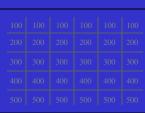
Q: What is anything involved with the five senses, temperature, etc?



This is what transmits signals between your brain and the sensors and muscles in your body

Question

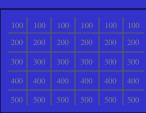
Q: What is your nervous system?



About this many muscles are required for you to walk

Question

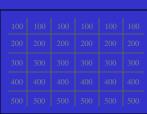
Q: What is 200?



This is where the NXT gets the information that it needs to move

Question

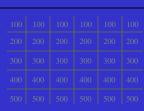
Q: What is from its program?



In order to move the robot, the robot's motors have to perform this kind of motion

Question

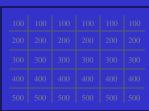
Q: What is rotation?



Name a situation in an NXT program that would cause a robot to stop

Question

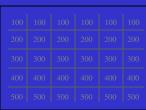
Q: What is the duration of the movement coming to an end?



Name three different types of durations you can give the movement of your robot

Question

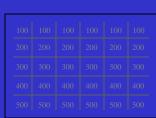
Q: What are unlimited, rotations, seconds, and degrees?



Name two benefits of using a ear train to move a wheel

Question

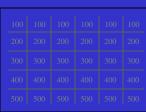
Q: What are increases in power or speed, or the linear displacement of motion?



This is where a human gets the information that it needs to move

Question

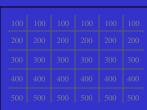
Q: What is the brain?



In order for you to move, your muscles have to do this

Question

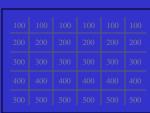
Q: What is contract?



These are the two main muscles involved in the bending of your elbow

Question

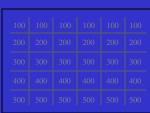
Q: What are your biceps and triceps?



Your muscles move your bones by pulling on these, which attach to bones

Question

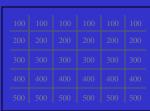
Q: What are tendons?



If your elbow is bending, this action has to occur for it to stop

Question

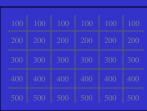
Q: What is contraction of your triceps?



Signals that travel through the wires of an NXT travel though this part of the body in humans

Question

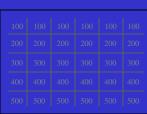
Q: What is the nervous system?



The touch sensor of an NXT is like this part of a human

Question

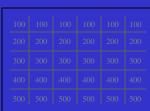
Q: What is the skin or any area sensitive to touch?



The sound sensor of an NXT is like this part of the human body

Question

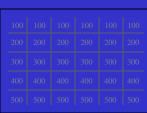
Q: What are ears?



The light sensor of an NXT is like this part of a human

Question

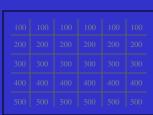
Q: What are the eyes?



This is the main difference between how humans and robots decide to do something

Question

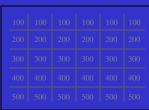
Q: What is the fact that humans can think about actions while the NXT reads its program?



This is the name of the type of robot that we program

Question

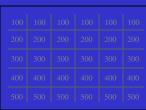
Q: What is a taskbot?



If the circumference of a wheel is 8 centimeters, how far would a taskbot move if made to go for 13 rotations?

Question

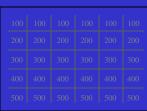
Q: What is 104 centimeters?



Give an example of a type 2 sensor

Question

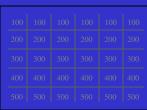
Q: What are many?



This is the major quality seen in Disney's WALLE robot that we are unable to give to our robots

Question

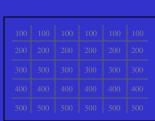
Q: What is the ability to think?



The ultrasonic sensor works by sending out a signal and judging how long it takes for that signal to come back. This is very similar to a process called echolocation performed by several animals. Give an example of one such animal.

Question

Q: What are dolphins, bats, toothed whales, certain species of shrews and oilbirds?



Final Jeopardy

List the steps involved in a person hearing a sound, then walking toward it.

Question

Q: Question HERE?

