CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY

Name(s)

Leonardo E. Pena

Project Number

34571

Project Title

Human vs. Robot

Abstract

Objectives/Goals

The objective of my project is to show the comparison between robots and humans in the real world. One of my major goals during my science project was to prove that robots can keep up with humans with today's newest technology. Another major goal was to show how easy it can be to build, maintain, and make a robot function with today's modern technology.

Methods/Materials

For my tests, I will completed a total of 15 tests for each side. The human side had to sort lego bricks into cups but once they drop the lego(into the cup or on the table), they may not pick it up again because the robot does not have that capability. For the robot, I simply activated it and let it follow it's program. The materials I used to build my robot where: 286 lego pieces that came from the Mindstorms NXT 2.0 kit(NXT block "the brain", wires, studs, beams, and rods). For my testing I will need 12 different lego bricks, 8 cups, and my test subjects.

Results

With my testing of my robot, I found that it is about three times slower than a human but is about 89% more accurate. I found this by studying my results and figuring out what would be better for the world.

Conclusions/Discussion

From my data results, I have derived that robots have won the competition between the battle of Human VS Robot. However, just from the data I have received from tests, I can still say "never underestimate the power of a human being." I can also say the same about a robot with ease as well. While human came up three times faster than the robot, robots were far more accurate.I can now infer that people would prefer a longer wait with more accuracy than a shorter wait with very little accuracy to receive their medication. Ever since I have gained interest in robotics, I have always wondered what is better for the challenging tasks that the world provides, humans or robots and I finally found my answer.

Summary Statement

My project is about the comparison between the efficiency of robots and humans.

Help Received

Father helped with backboard; family and teacher Mrs.Urbiztondo provided encouragement.

Preliminary