Exploring How Interaction Types Influence Trust in Sphero Robots
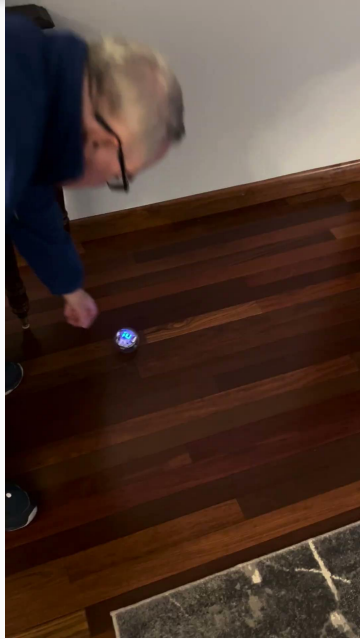
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Why did we pick this project?

We were curious about the types of actions people were comfortable with performing with a robot and if they could trust information reported by a robot.

What did we do? (Videos)

How well did it work?

- Very well received. No one reported significant/unexpected errors.
- 5.6 (Avg - "Very Comfortable") for comfort in Throwing VS 4.8 (Avg - "Comfortable") for comfort in Kicking
- High degree of Trust in Sphero for both trials - (6.2 Avg - "High Trust")
- 2 participants felt uneasy in how the robot was treated in the study
- 4 participants would use a sphero on a daily basis
- No significant difference in interaction methods affecting trust in Sphero - does not support our hypothesis

What would we do differently?

- Investigate other factors that could impact trust

- Speed up the algorithm

- Gather more data

The most interesting thing

Only one of our respondents cited concern for the robot's welfare as a reason they did not feel it was socially acceptable to kick or throw a robot. Thematic Analysis with Conditional Acceptance (2), Hesitant (1), No Moral Concern (2).

Do you think it is socially acceptable to kick or throw a robot as part of an interaction? Why or why not? 5 ⓘ

Do you think it is socially acceptable to kick or throw a robot as part of...

Yes

I think it is acceptable if it becomes more of a nuisance than a helpful tool.

No. Kicking it is acceptable only if its meant to be used that way, for example, a football with sensors

felt hesitant fearing it would break up

I think it's socially acceptable to kick or throw robots since they aren't really living.

Advice for future students

- Pick a project that you will enjoy doing

- Start with an idea you think is cool and make changes as needed