

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. A large, solid blue oval is centered on the page, containing the title and authors. A thick, dark gray curved line sweeps across the bottom left, partially overlapping the blue oval.

CPSC 584 – Stimulating Companionship With Rolling Robot Through Gestural Animation

By Bader, Kris, Neil, Nadhif



Introduction



Benefits and Limitations
of Proposed Interface



Implemented Prototype



Wizard of Oz Prototype



Evaluation

Topics

Introduction

Problem



aibo

\$2,899.99



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Motivation

- Pets cool, robot pets cooler
- Can't fix expensive, but we can fix stupid



Related Works: 12 principles

- Squash and stretch
- Anticipation
- Staging
- Straight action/ pose to pose
- Follow through and overlapping
- Slow in slow out



Related Works: 12 principles



- Arc
- Secondary action
- Timing
- Exaggeration
- Solid drawing
- Appeal

Related works



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Design Evolution



Design Evolution

- Originally focused on functioning as a domestic pet alternative.
- Original interactions felt mechanical and stiff which led us to change our design approach
- Followed Disney's 12 Basic Principles of Animation in our implementation of the interactions.

Benefits and Limitations of Proposed Interface

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Ollie as an
interface offers
several strengths

Rigged and Durable Exterior

Water Resistant

Child Friendly

Pricing

However, there are numerous limitations surrounding development with Ollie



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SPHERO**



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Prototyping

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Implemented Prototype

With the limited sensors on the Ollie, two interactions were implemented:

- **Hit: Using an accelerometer**
- **Petting: Using a gyroscope**

Hit | Accelerometer





Petting |
Gyroscope

Wizard of Oz Prototype

The rest of the implementation were done through wizard of oz

- Voice Command
- Proximity

Angry | Voice Command



Disappointment | Voice Command



Sad | Voice
Command





Excitement
| Proximity

Evaluation

Self Evaluation

Mostly effective in conveying what emotion Ollie is expressing

- Happy
- Sad
- Angry
- Calculating
- Hit

Problems

- Disappointment
- Excitement
- Biased
- Small sample size