Magic Touch
Gain a Magic Touch

Sketch Model Review
Purple Team B
Magic Touch

Professionals:  Is there a need to apply power to test circuits?

Toys/Education: Can we better engage children in engineering?
Sketch Model Questions

Can we make and control circuits through our hands safely?

Is this something targeted for professionals or for children?
How It Works

AAA batteries with leads in the thumb and pointer finger.

Resistor and LED building blocks in series
Magic Touch

Professionals
Wearable Technology: $14B (2016)

Toys/Education
Classroom wearables: $565.6M (2022)
Magic Touch

Professionals

Small parts, annoying to wear gloves while building

No need to for voltage supply until after circuit is built

Steve Banzaert in Cambridge, MA

Toys/Education

Safety to Others

Message: test electrical components with fingers

Gloves don’t do enough

Feedback gathered from:
7th grade students at Barstow School & Director of K-12 STEAM Education at Barstow School in Kansas City, MO
Gloves Don’t Do Enough
Make The Gloves Do More
Make The Gloves Do More

Professionals
- Smart Phone Compatible

Toys/Education
- Adventure Oriented Features
Make The Gloves Do More

**Adults**
- Make Phone Calls
- Record To-Do List
- Connect with Siri

**Children**
- Record Voice
- Shoot Laser
- Sound Effects
Feedback from Students

This sounds pretty good and especially good for classrooms.

I don't know because it already sounds awesome.

It was very good nothing could make it better.
Feedback from Students

This sounds pretty good and especially good for classrooms.

Make it more interesting

This sounds really cool but one thing that might make it better is if you put some other cool to do with gloves with them.

I don’t know because it already sounds awesome.

It was very good nothing could make it better.

You can make it better by making the gloves useful for more things.
How it works

- Low voltage is applied via a battery. Ideally, we will use a Li-battery
- Leads run through the glove into the fingers
- Copper tape is used to provide a larger area for the connection to occur
- Magnets and soldered leads in the foam blocks connect LEDs/motor
Survey & Results

- Students, teachers, and professionals
- However, wanted more out of the gloves
- Concerns:
  - Safety
  - Functionality
- From this feedback, we look to new product abilities in our future developments....
Market

- Classroom wearables: ~$565.6M (2022); Toy Retail Market: ~$30.5B (2017)

- Adult applications: ___
- Kid’s competition: other circuit kits

- Adult competition:
  - smart wearables
  - standard bluetooth
Future

- Added Functionality Needed

- “Spy” features for kids: recording device, laser pointer, light up movements all mapped to different fingers

- For adults: smart gloves that move beyond just smart device compatible to smart tech enabled
  - Voice-to-Speech text messages
  - Phone calls through hand motions
  - Alerts and Notifications