2.009 Final Presentation

December 8, 2008

Overview

- Technical Discussion
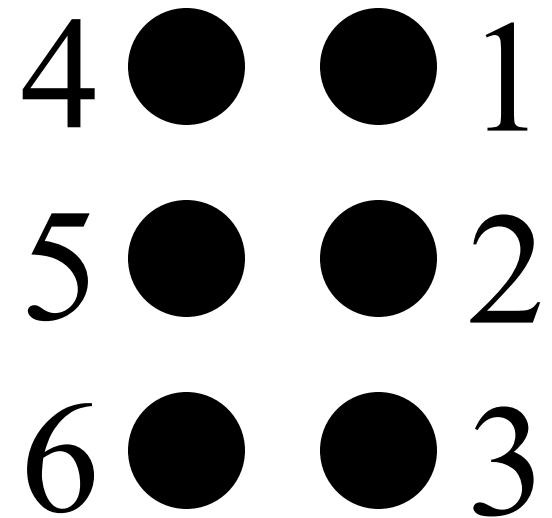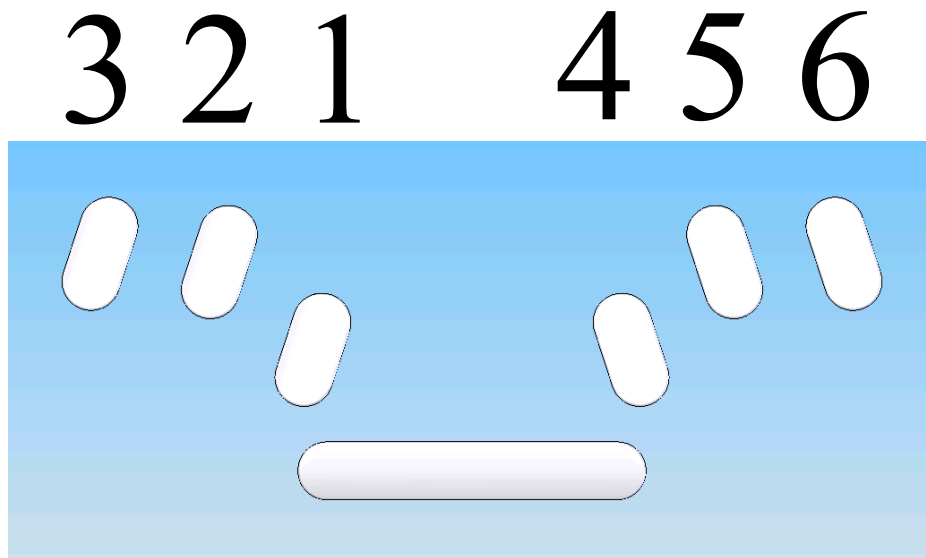- Looking Forward

The Need

Existing Products

Perkins Brailler
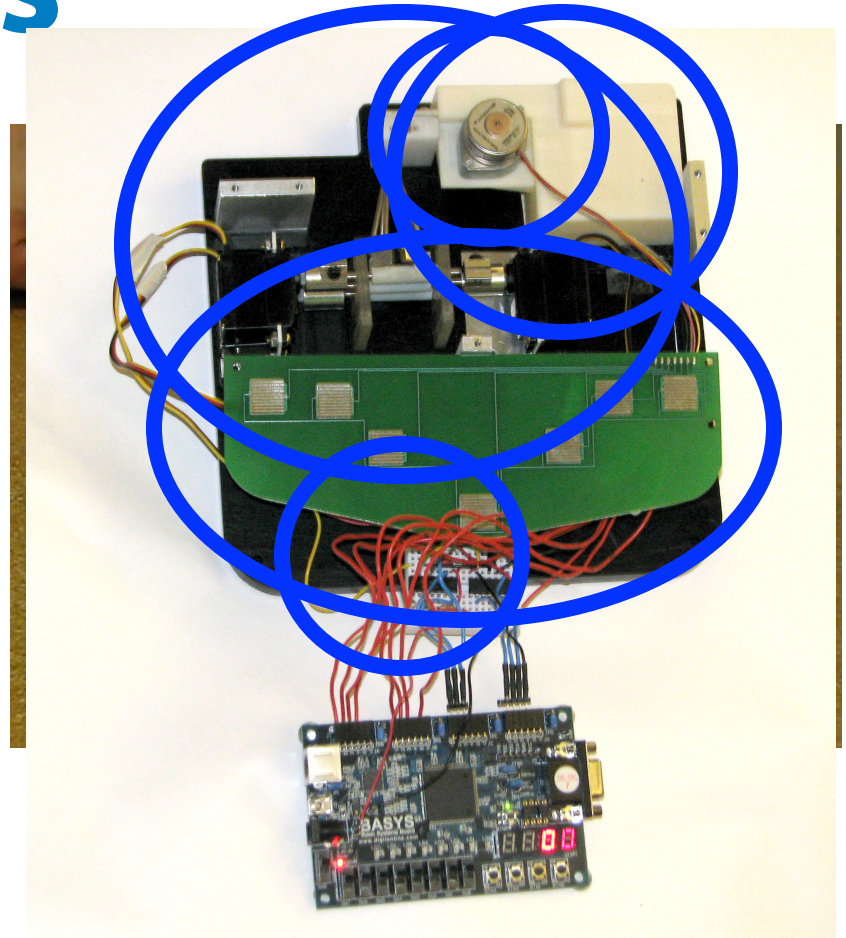
Hand Labeler

Product Demonstration

Technical Challenges

- Emboss in tight space

- Advance tape consistently

- Cut easy-to-peel tape

How It Works

1. Load Tape

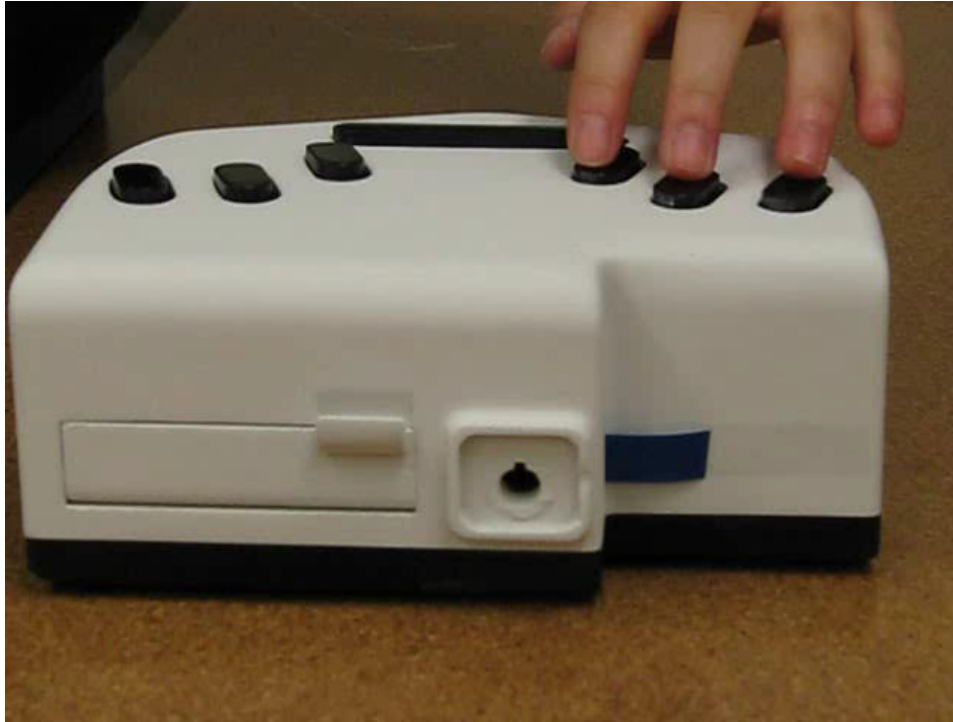2. Type Characters

3. Emboss Dots

4. Advance Tape

5. Cut Tape

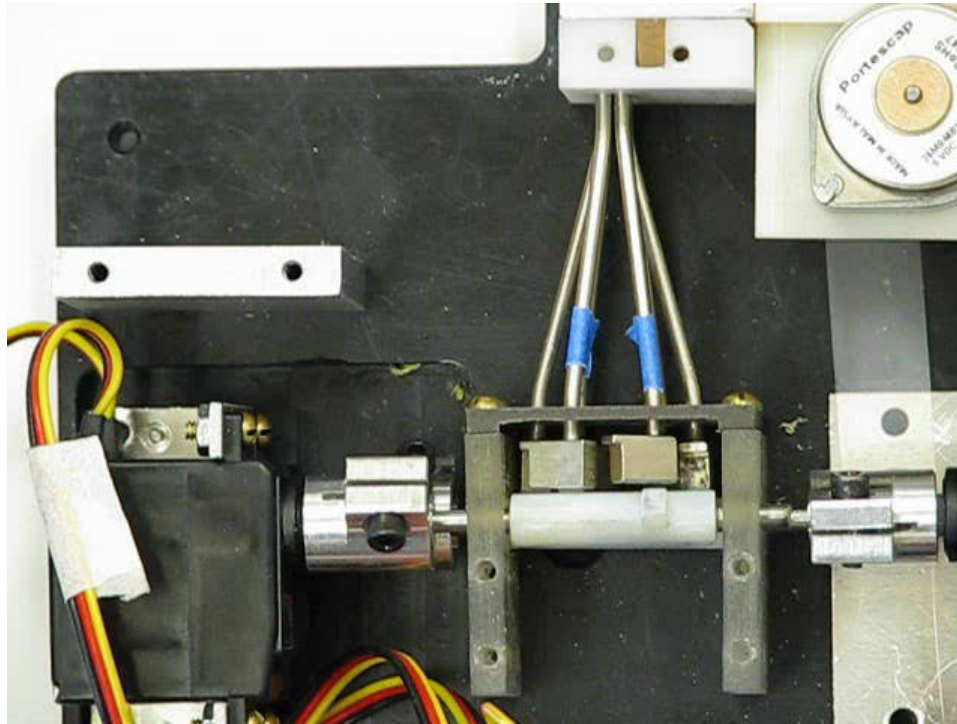# Load Tape

Insert Tape   ⟶   Close Door   ⟶   Advance Tape

Type Characters

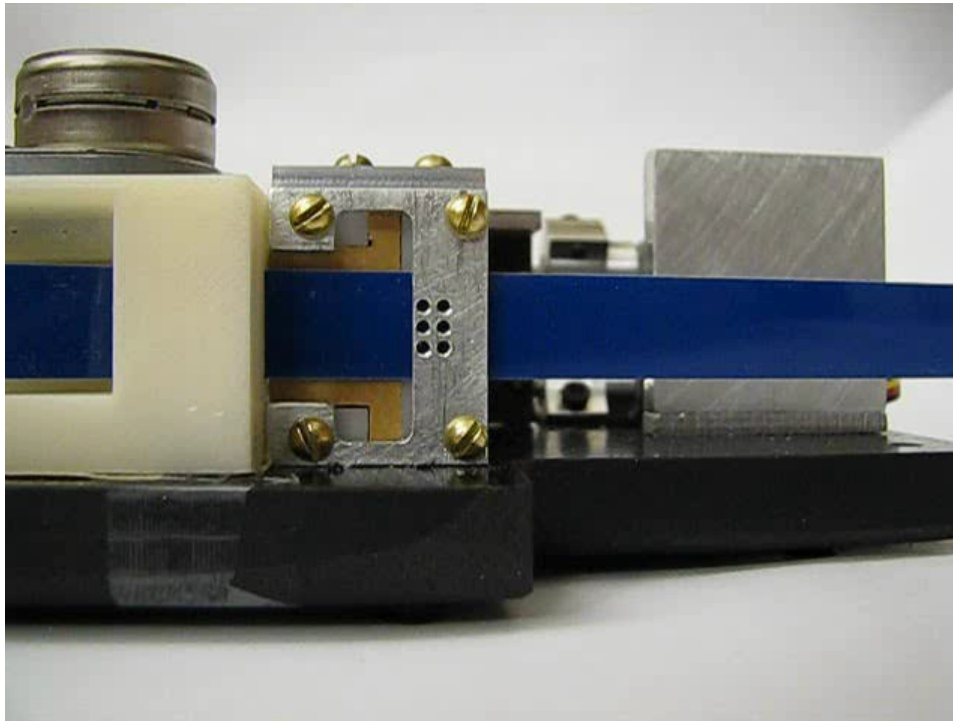Key Press ⟶ FIFO Buffer ⟶ Emboss Tape

Emboss Dots

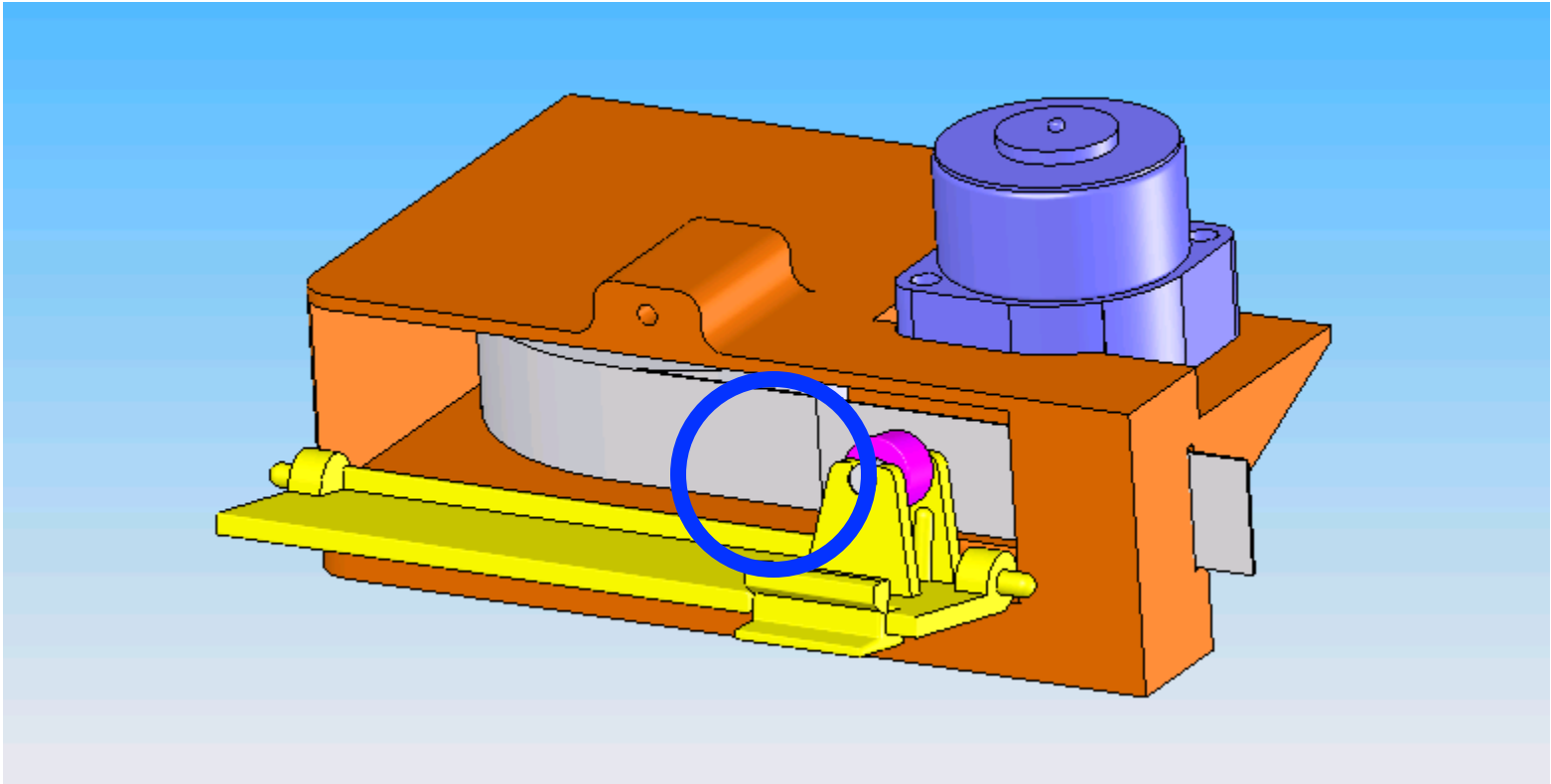Servo Motor ⟶ Cam Shaft ⟶ Embossing Pin
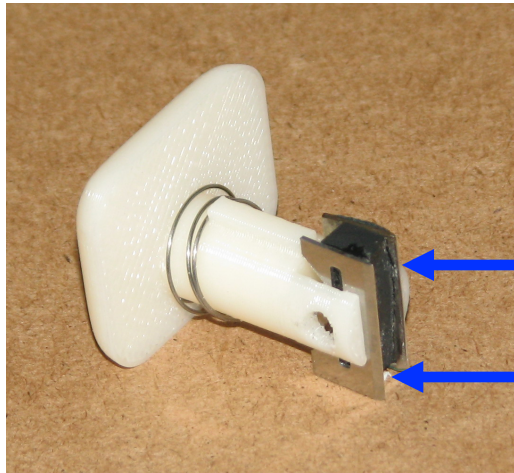
Emboss in tight space

Emboss Dots

Advance Tape

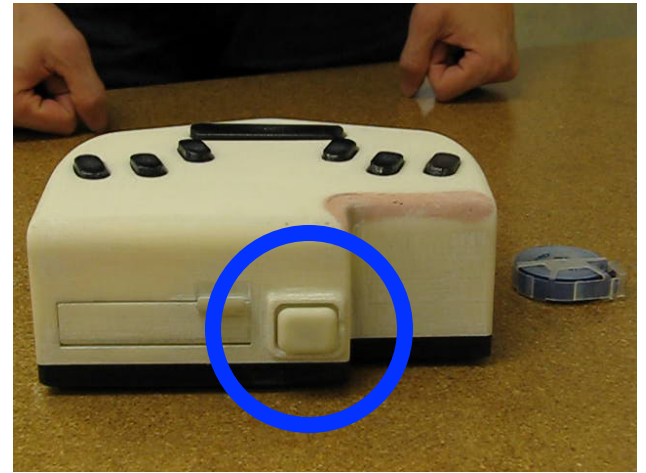Door Closes $\longrightarrow$ Tape Engages $\longrightarrow$ Advance Tape
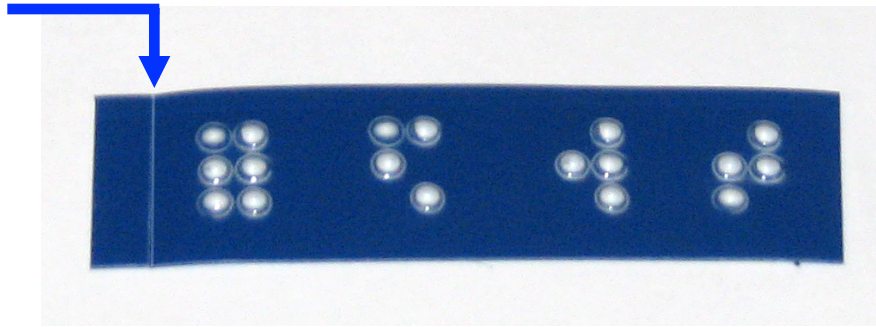
Advance tape consistently

Cut Tape
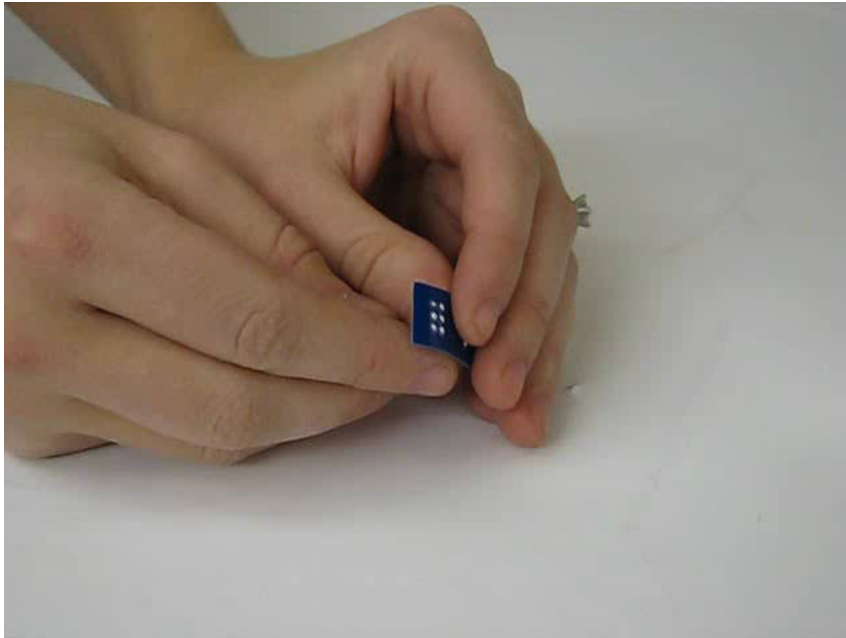

Scoring Blade

Primary Blade

Scoring

Cut easy-to-peel tape

Why Score Tape?
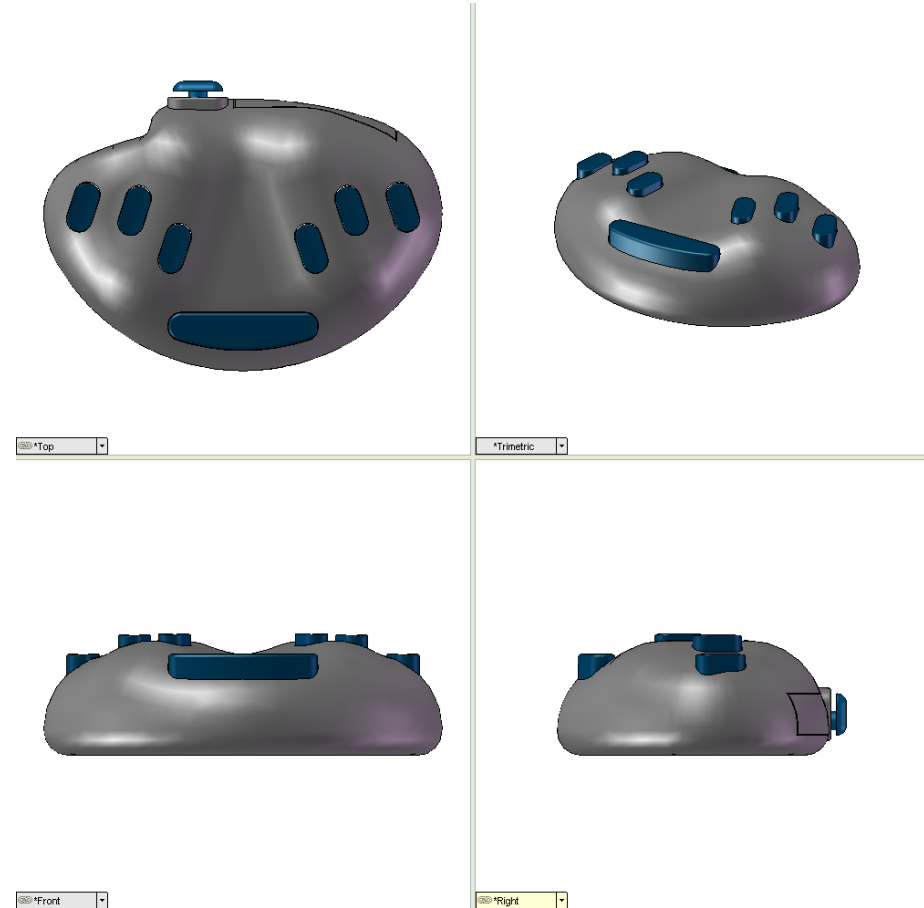

Regular Tape

33 seconds

DOT it Scored Tape

7 seconds

Industrial Design

1. Minimalist layout

2. Simple tape loading

3. Easy to press buttons

Next Steps

- Size
  - Replace FPGA w/ PIC
  - Thinner Keyboard
  - New embossing module
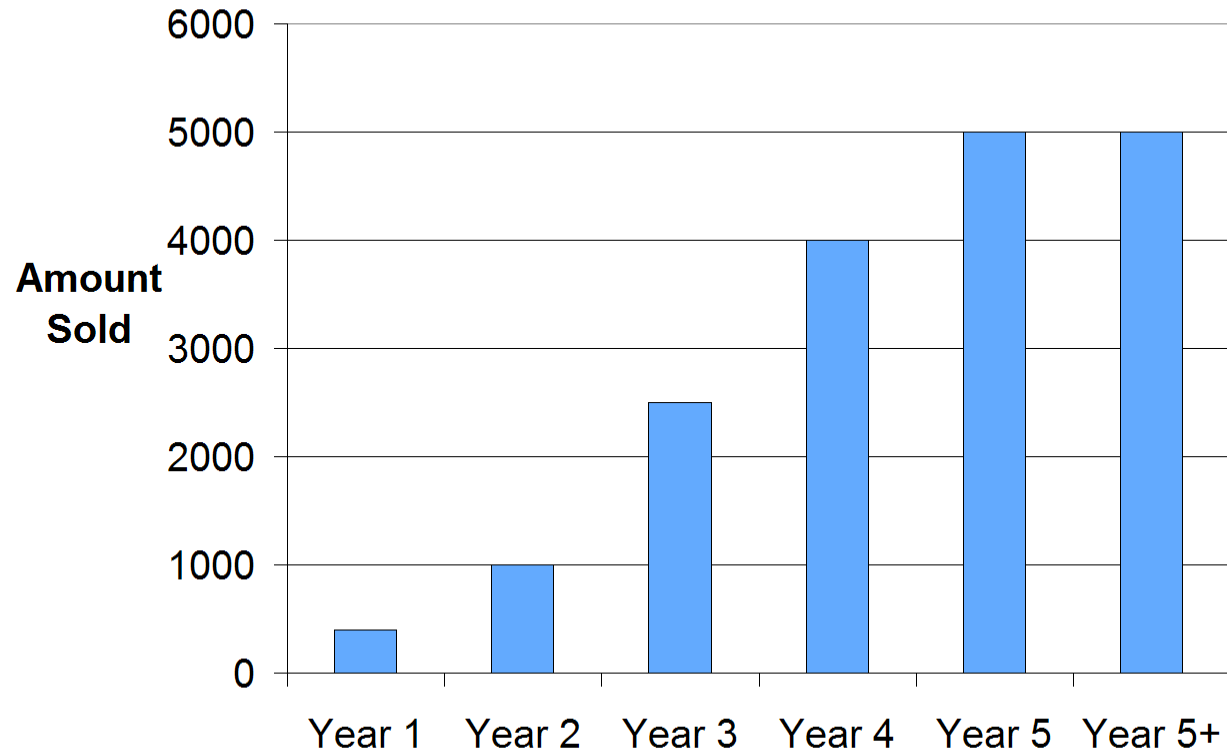- Ergonomics
- Less force to cut

Market

Target Market: Blind or visually impaired in the US that are fluent in Braille.

Market Size: 100,000 people
- Small market but high product demand
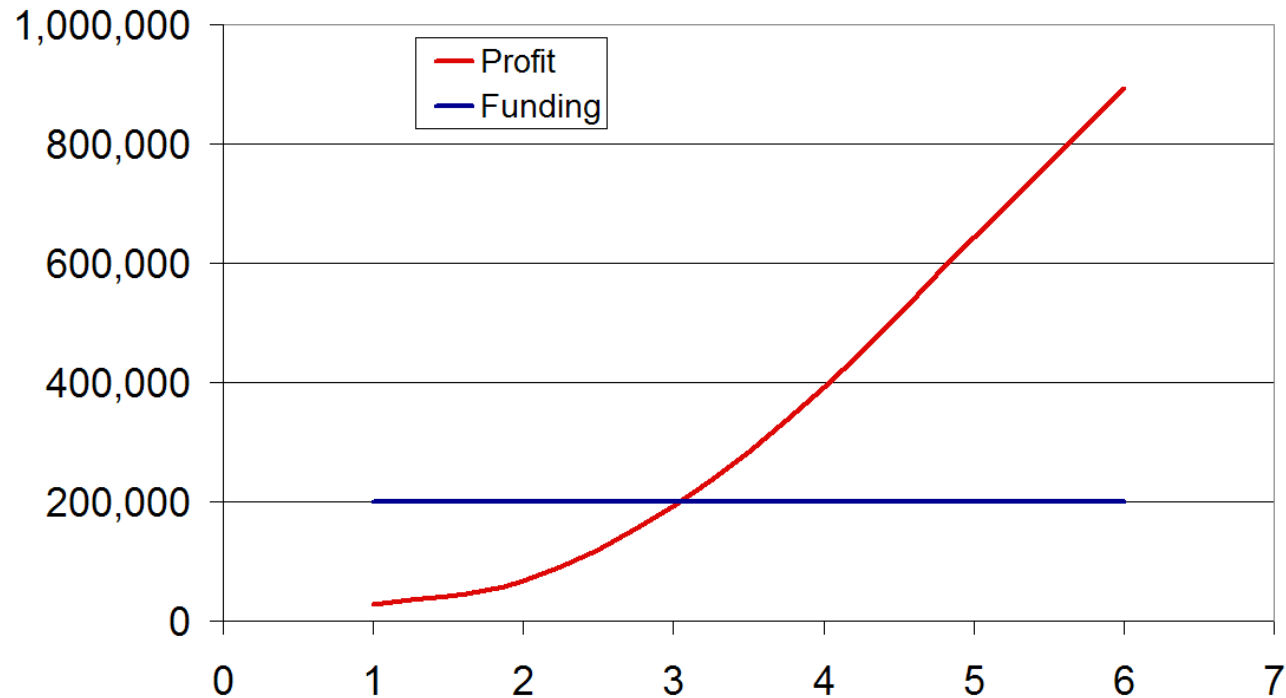
Sales Projections

5000 sold per year after 5 years

Financials

The **DOT it** will be a non profit venture

- Price: **$100**
- Initial Production cost: **$70**
- Final Production cost: **$50**
- Initial Funding: **$200,000**

Financials

Time to break even: **3 years**

Sales and Marketing

- Organizations
  - National Braille Press
  - Perkins School for the Blind
  - Carroll Center for the Blind
- Blind user mailing lists
- CTEVH Conference

Closing Remarks

"While they were saying among themselves it cannot be done, it was done."
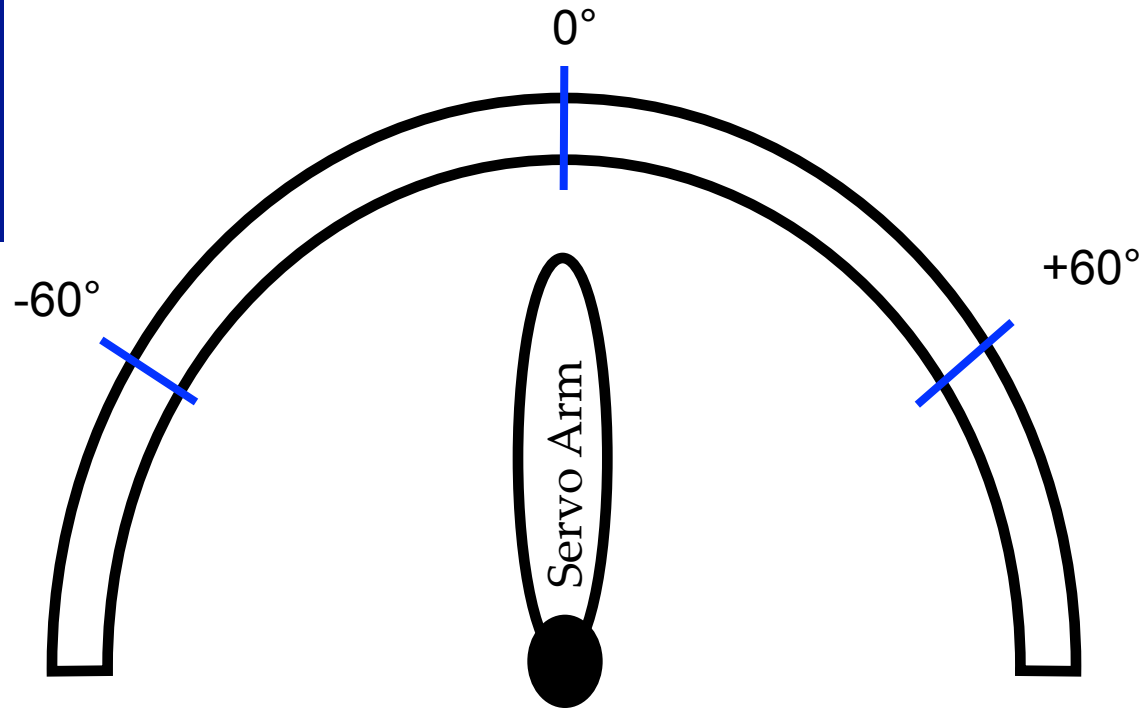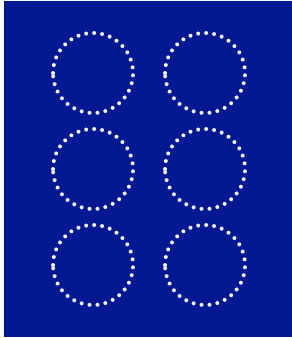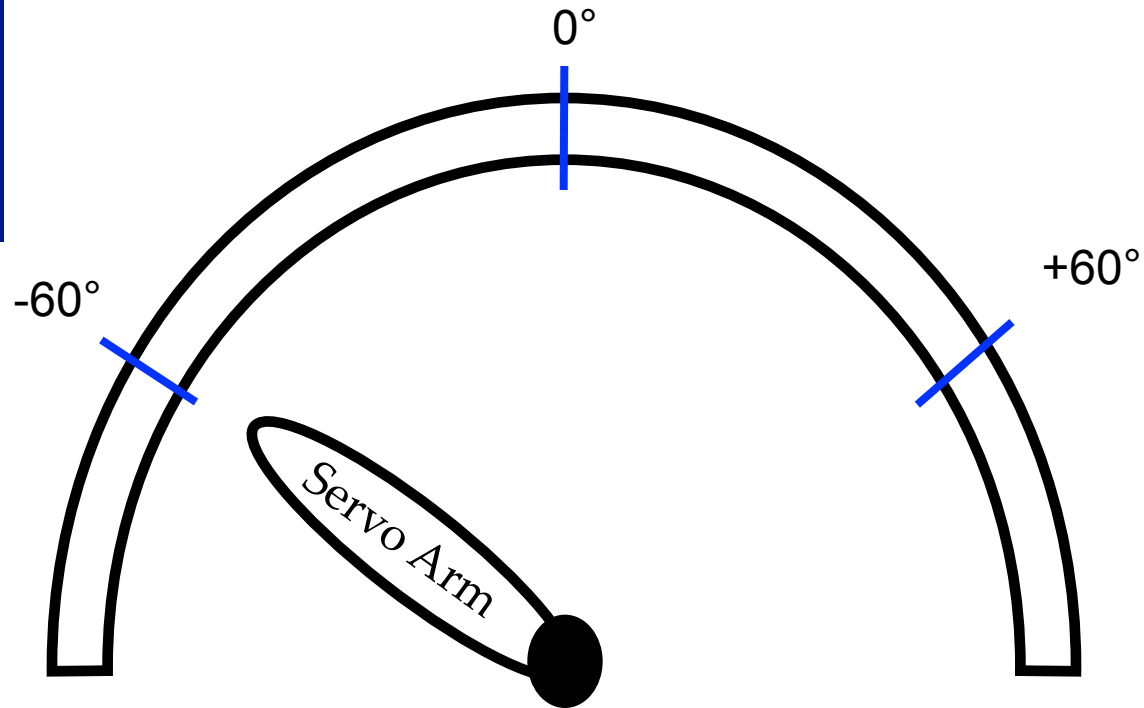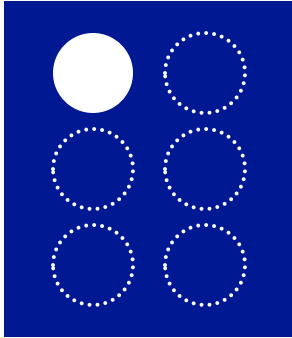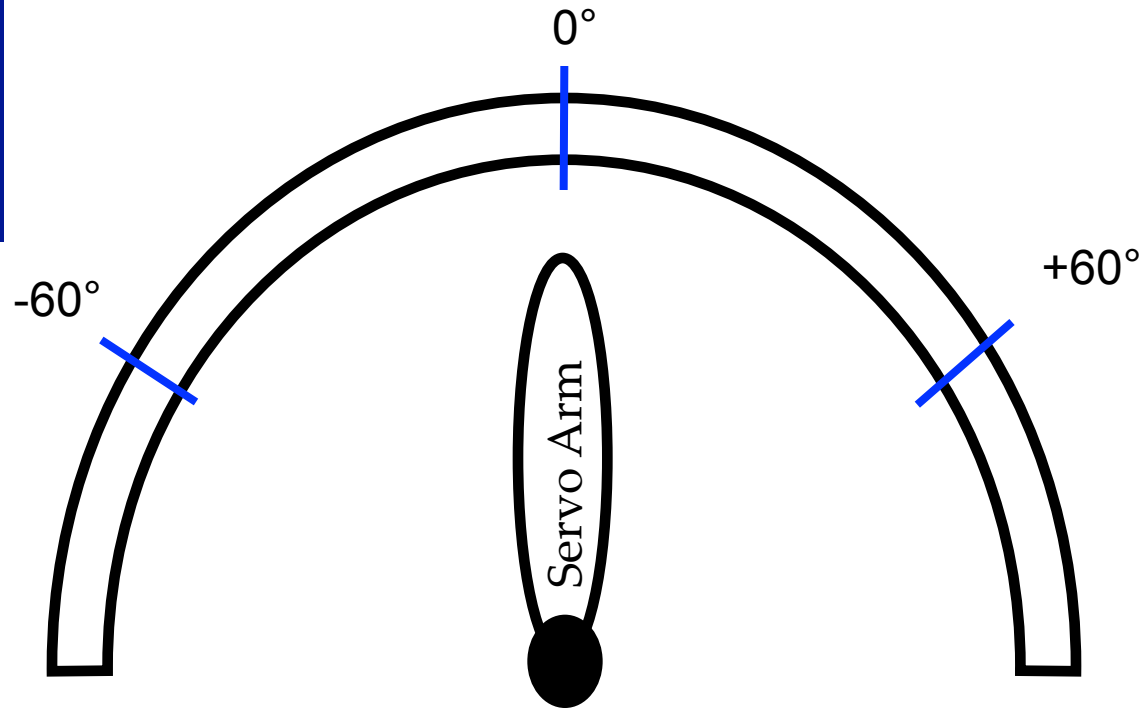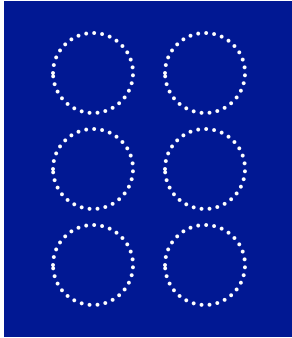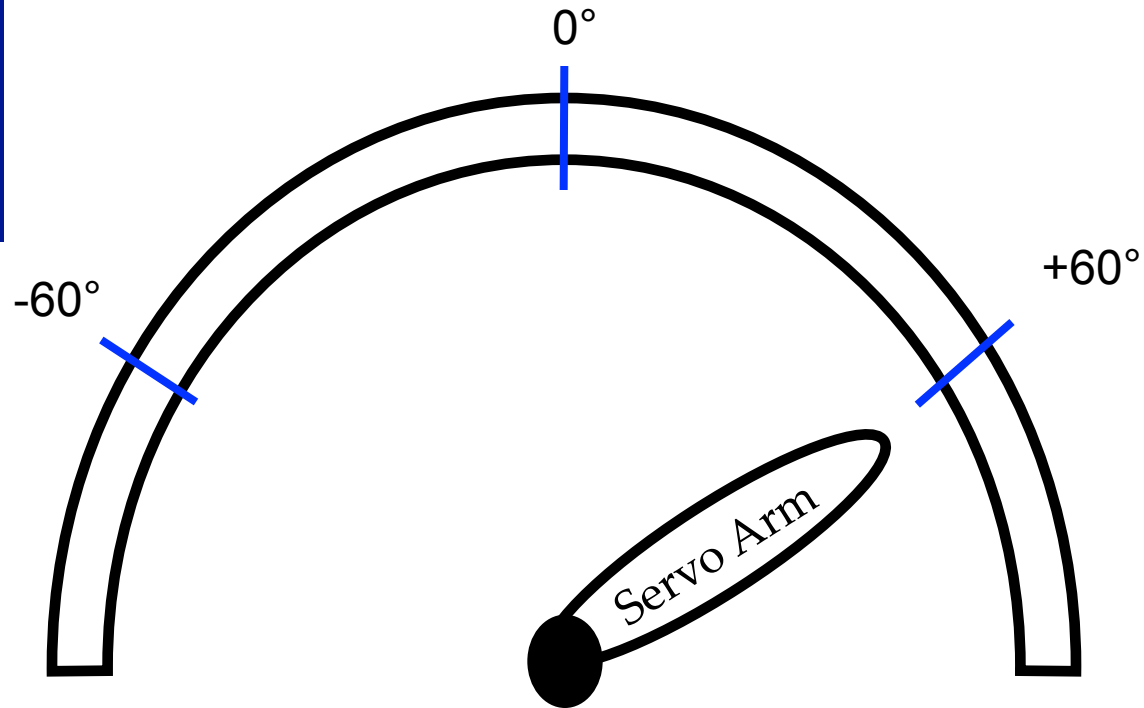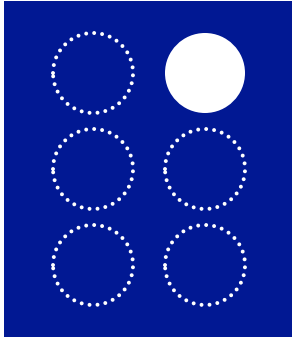
--Helen Keller

Appendix

- Emboss Dots

Emboss Dots

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