

# ERASEAWAY MP ZEBRA PENCIL

## Reverse Engineering - EraseAway MP Zebra Pencil



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Breniser 1

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## Section I: Proposal

- What is your device? (device description, cost and source)
  - Pencil, sourced from the university store, \$3.50 for a pack of 2 with lead
- What does the device do?
  - Holds and erases graphite/lead, used for writing, drawing, marking with graphite/lead
- How are you going to take it apart? What tools do you need?
  - By hand
  - Tools: EXACTO knife
- How many parts do you think it contains? What kinds of parts do you think you will find inside?
  - 7 minimum
  - Spring, holder, tube
- Rough sketch of the overall device (hand drawn orthographic, isometric, or both)
  - See Appendix A

## Section II: Bill of Materials

PART NUMBER	PART NAME	QUANTITY	MATERIAL
01	Eraser	1	Rubber
02	Cap	1	Plastic
03	Tip	1	Chrome
04	Tip Holder	1	Plastic
05	Eraser Holder	1	Plastic
06	Tube	1	Plastic
07	Chuck	1	Plastic
08	Chuck Spring	1	Steel
09	Chuck Tip	1	Brass
10	Clip	1	Plastic
11	Grip	1	Rubber
12	Case	1	Plastic

## Section III: Project Report

- How does the object get taken apart?
  - In the order of the part numbers (Part 1 gets removed first, then Part 2, etc.)
- How does the object get assembled?
  - In reverse order of the part numbers (Part 12 gets placed first, then Part 11, etc.)
- What happened?
  - Object was disassembled without mishap, then drawn in AutoCad
- What would be done differently?
  - More time would be invested in creating better isometric views and better detail views

ERASEAWAY MP ZEBRA PENCIL

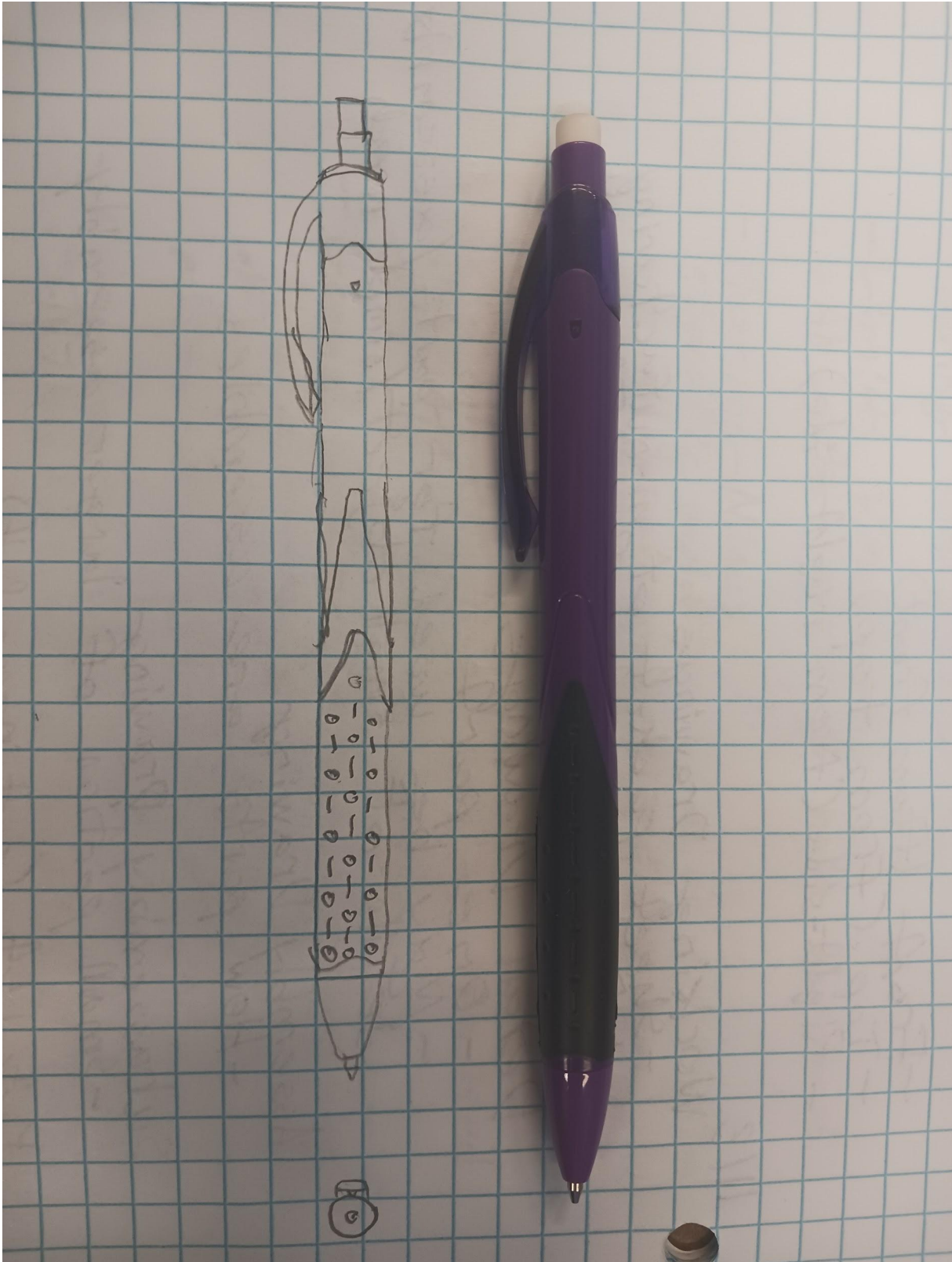
## Sources

All drawings done by Sasha Breniser

Appendix photos done by Sasha Breniser

Cover Image from <https://www.walmart.com/ip/Erase-Away-Mechanical-Pencils/42349608>

## Appendix A: Hand Sketch of Pencil



## Appendix B: Disassembled View of Pencil

