

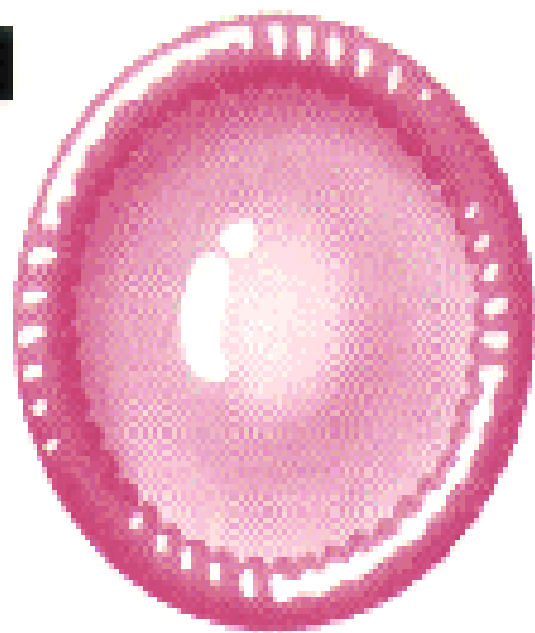


Male Barrier Model

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Client: Dr. Marge Sutinen
Advisor: Professor Kreeger

S T O P



A I D S

Client and Project Info.



- Dr. Sutinen is extremely dedicated to fighting AIDS/ spreading knowledge about protection
- Project: Design tool to demonstrate condom strength

Preliminary Testing

- Demonstration!





Design Specifications

Structure:

- Adjust to height of condom stretch (4 ft)
- Structure must withstand 10+ lbs of force repeatedly (multiple demonstrations)
- Should disassemble easily
- Aesthetically pleasing



Design Specifications (cont.)

Scale:

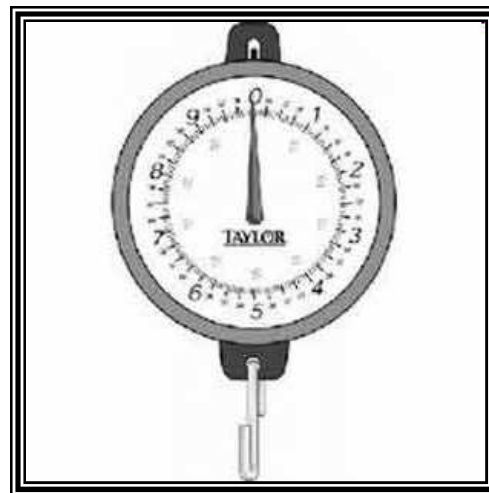
- Readable
- Places emphasis on demonstration

Clamp:

- Easy to load
- Sturdy
- Must clamp barrier securely without damaging it

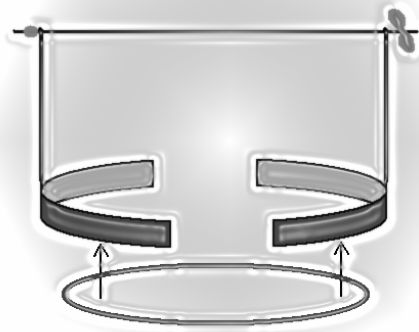
Scale Design Matrix:

Scale	Digital display	★ Analog Display	Force Transducer
Cost (12)	7	11	1
Readability (15)	8	11	13
Aesthetics (8)	4	6	7
Accuracy (4)	3	2	4
Portability (11)	10	9	6
Total	32	39	31



Clamp Options

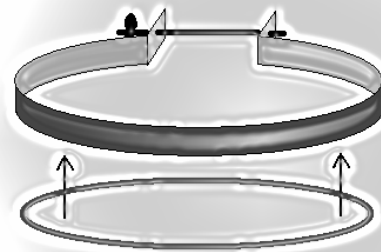
1. Oyster



2. Lobster



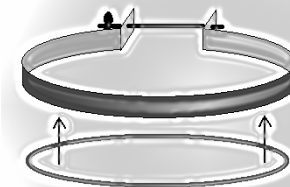
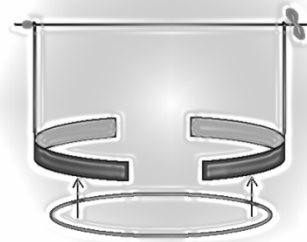
3. Octopus



Decision Matrix - Clamp

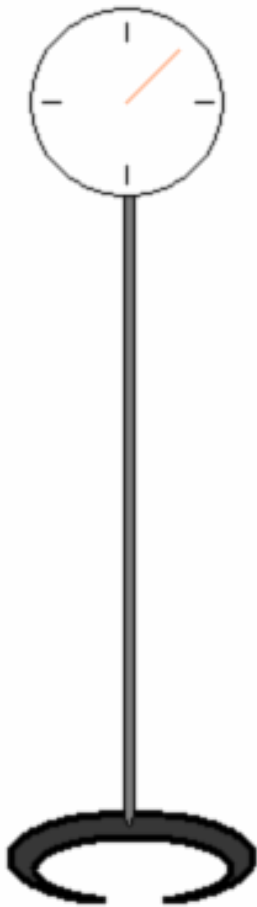


Clamp	Oyster	Lobster	Octopus★
Cost (4)	3	1	4
Loadability (10)	9	5	8
Ease of Setup	7	10	8
Manufacturability (12)	8	6	10
Material Compatibility	10	4	9
Total	37	26	39

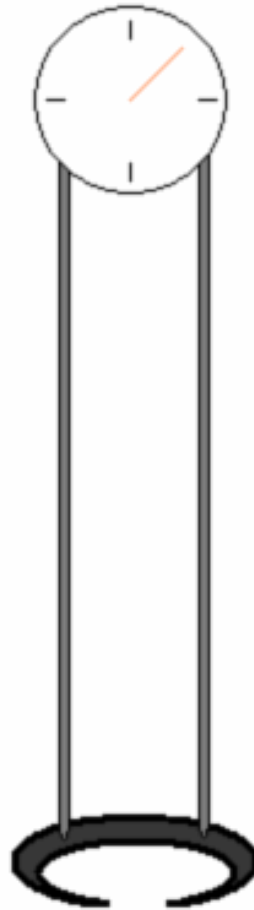


Structure Options

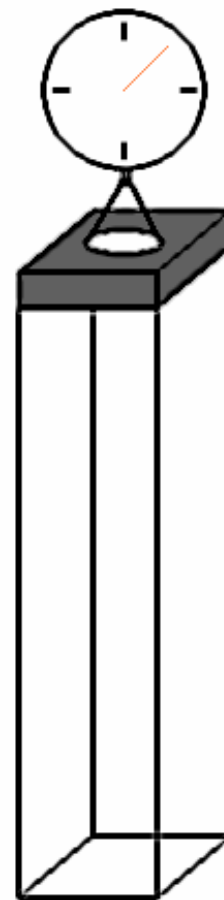
1 Pole



2 Poles



Plexiglas Box



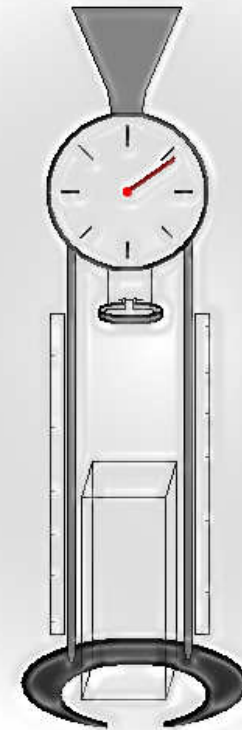
Decision Matrix – Structure

Structure	1 Pole	2 Poles★	Plexiglas Box
Cost (10)	10	8	4
Portability (10)	10	10	3
Aesthetics (10)	6	7	10
Stability (10)	3	7	9
Manufacturability (10)	9	9	4
Total	38	41	30



Building

- Measuring dimension
- Base manufacture
- Scale mounting
- Clamp manufacture
- Pellet trap
- Additional features



Testing and Presentation

- Clamp testing
- Stability testing
- Pellet Containment
- Safety
- Classroom Presentation





References

- WHO and HIV/AIDS. 2009. WHO. 3 March 2009.
<http://honolulu.hawaii.edu/legacylib/mlahcc.html#internet>
- Wolfe, Barbara. "Teachers, students benefit from AIDS activist's commitment". 28 April 2005. University of Wisconsin Madison: News. 3 March 2009.
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