



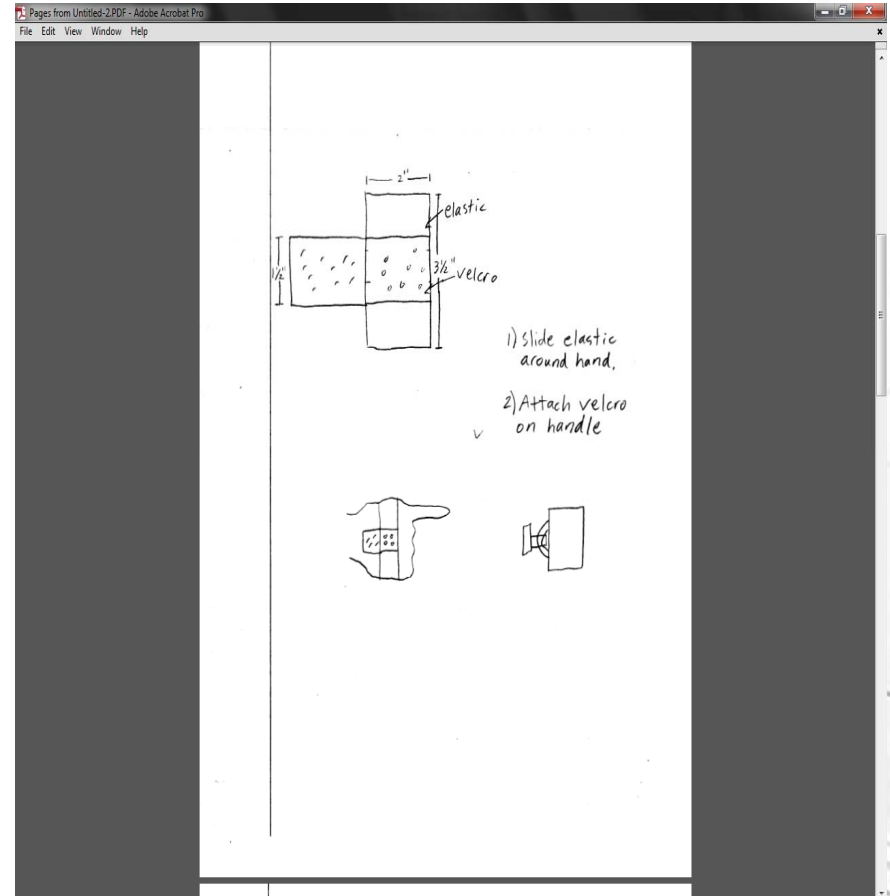
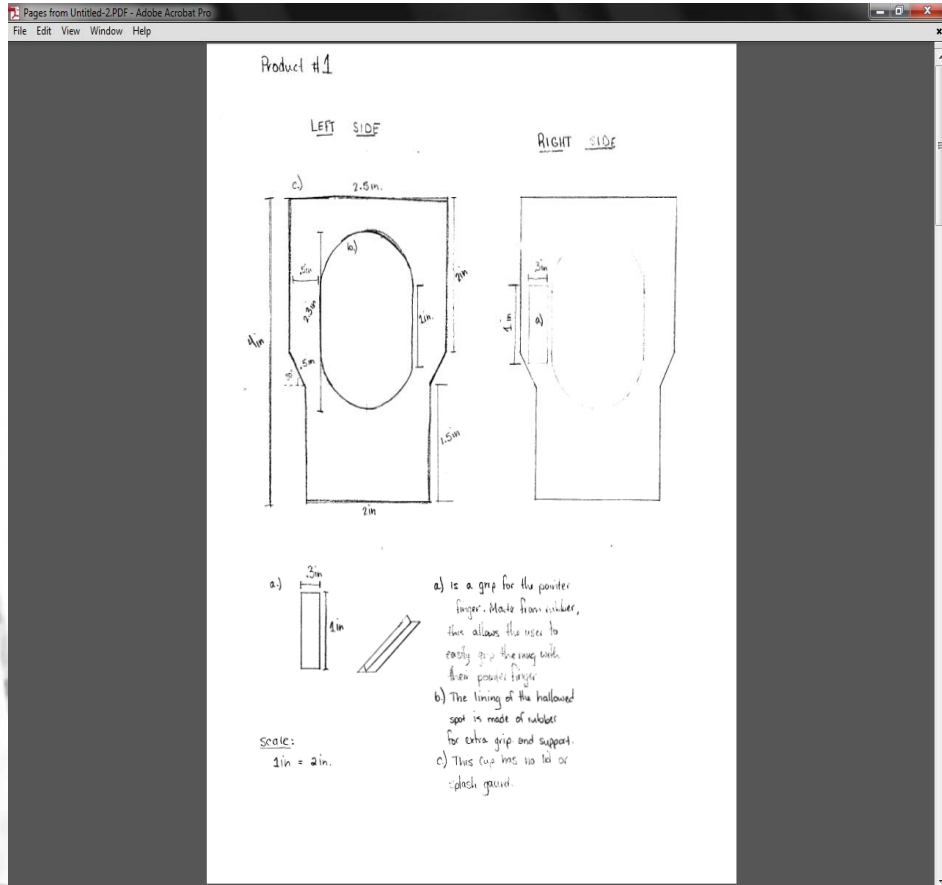
# **5 Products for Coffee Drinkers with only their index finger**

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# Problem Statement

- **Goal Statement:** to design a coffee mug for a person with only their pointer finger
- **Goals:**
  - Affordable
  - Simple, yet reliable
  - Cosmetically Appealing
- **Objectives:**
  - $\text{weight} < 16\text{oz}$
  - $\text{Cost} < \$5$
  - $\text{Total area} < 32\text{in}^3$
- **Constraints:**
  - Light-weight
  - Cheap
  - small

# Products 1 & 2



# Product 1 & 2 Specs

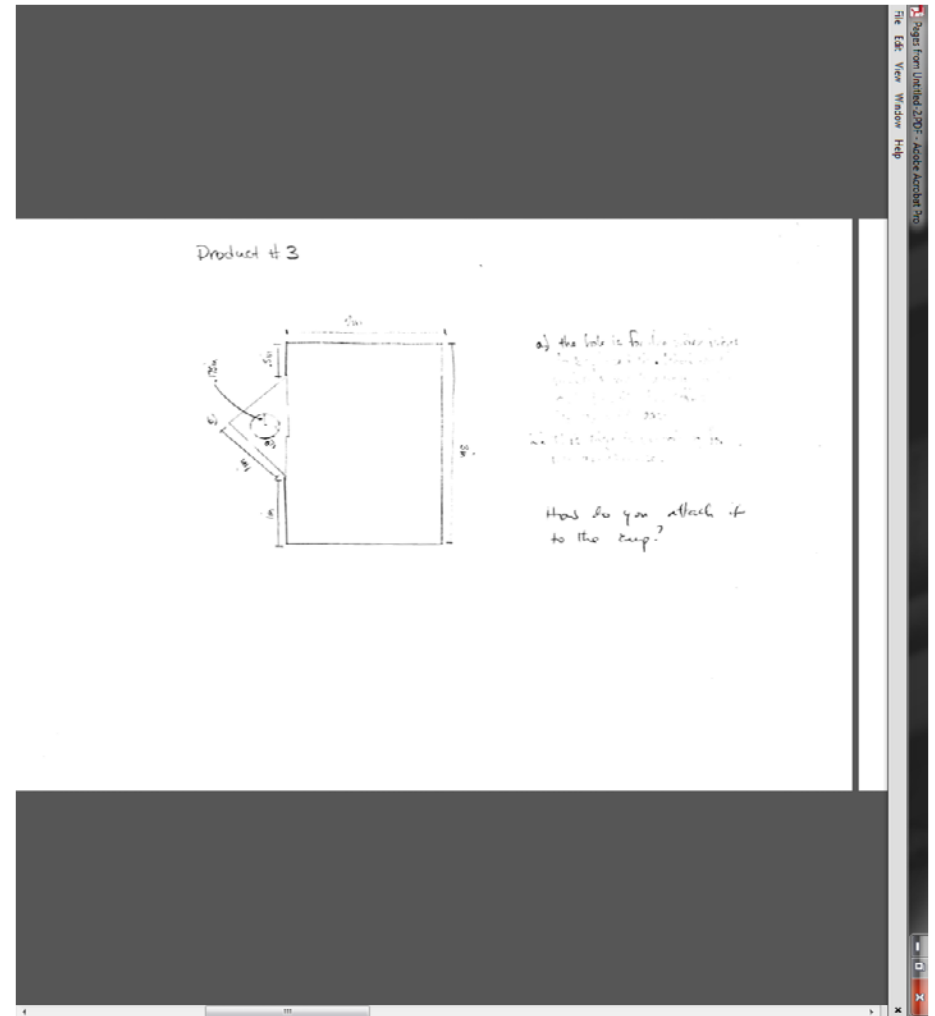
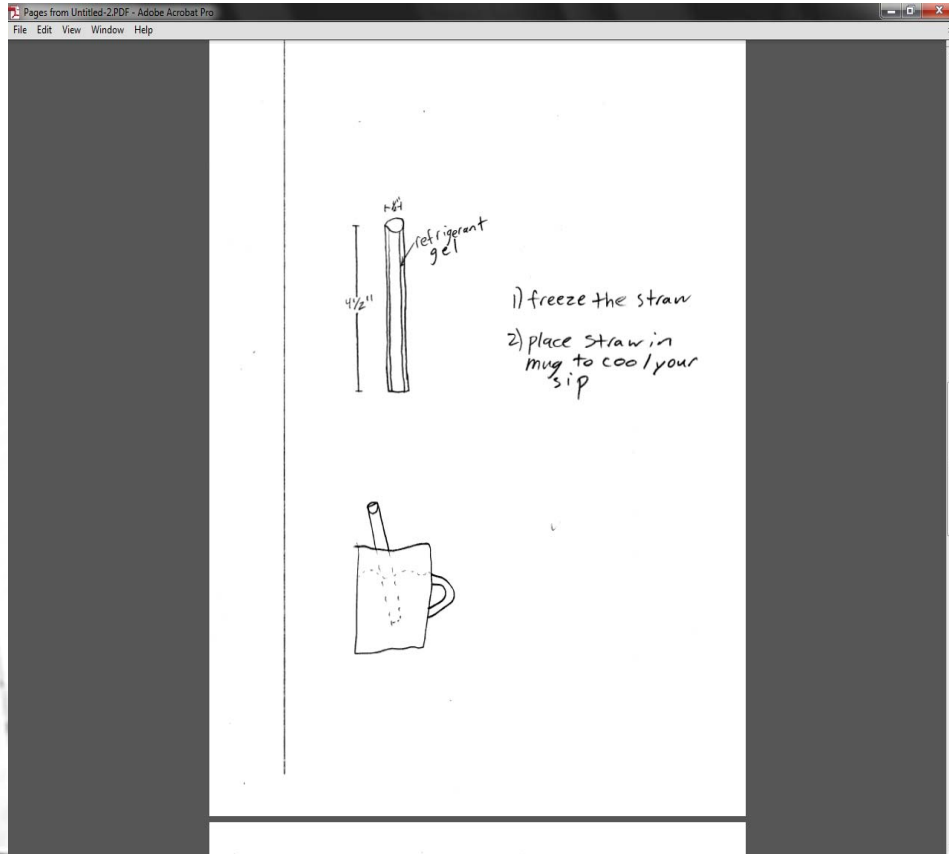
## Product 1

- Hand-hole in center to slip your hand in, then grip on back side for pointer finger
- 10.25in<sup>3</sup>
- Hand-hole is lined with rubber for comfort and grip
- Cup is made out of plastic that can withstand high temperatures

## Product 2

- Elastic band slide around hand, then Velcro attaches to mug
- 9 in<sup>3</sup> elastic and mug, 1.5in<sup>2</sup> Velcro strip
- This system attaches to any normal coffee cup

# Products 3 & 4



## Product 3 & 4 Specs

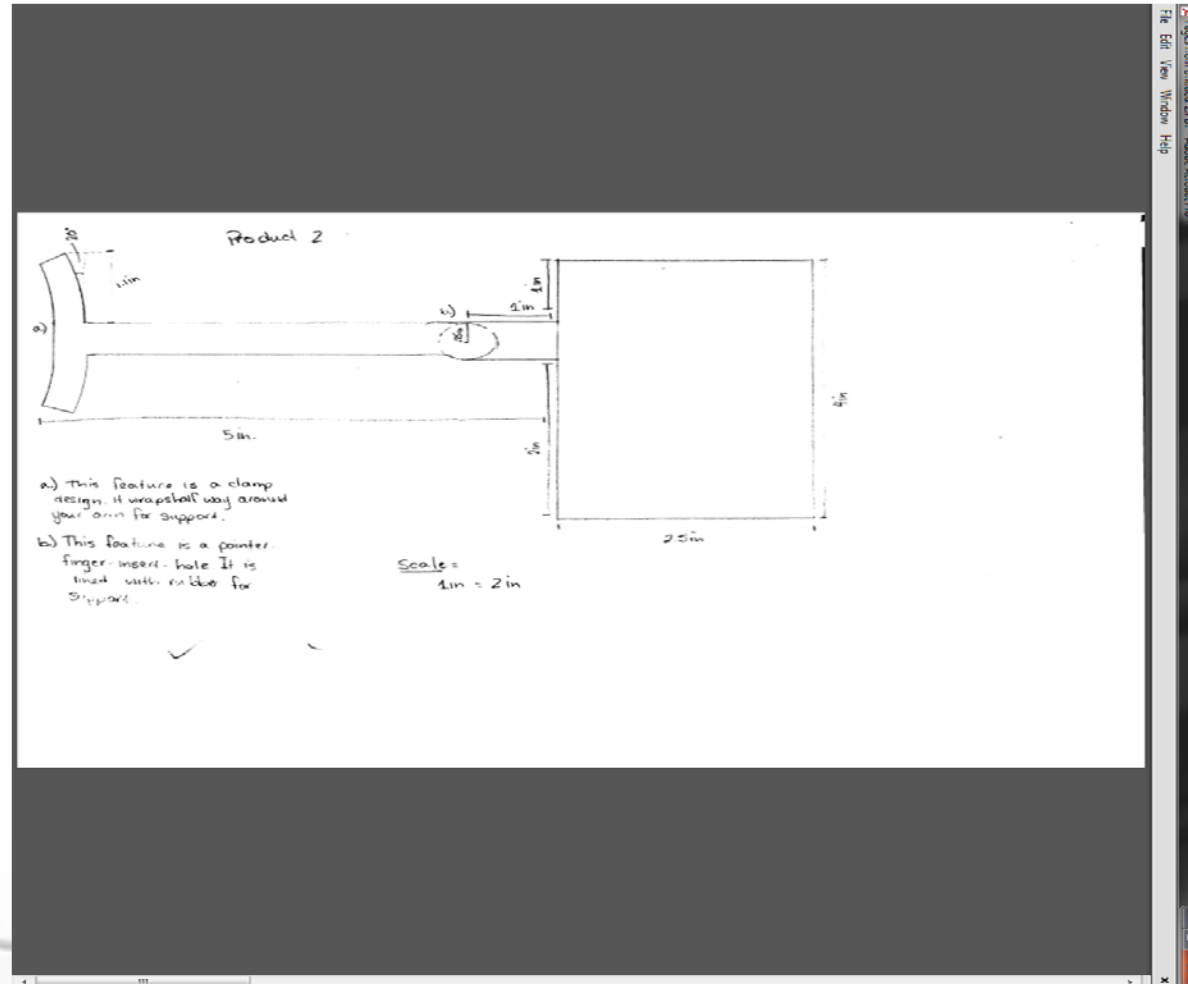
### Product 3

- Straw with coolant gel wrapped around
- 3.5in<sup>3</sup>
- Place straw in refrigerator or freezer for ½ hr then place in coffee
- Made out of plastic that can withstand high temperatures

### Product 4

- Coffee mug with added finger hole attached to side
- 12.4in<sup>3</sup>
- Finger hole is lined with rubber for comfort and grip
- Made out of ceramic

# Product 5



## Product 5 Specs

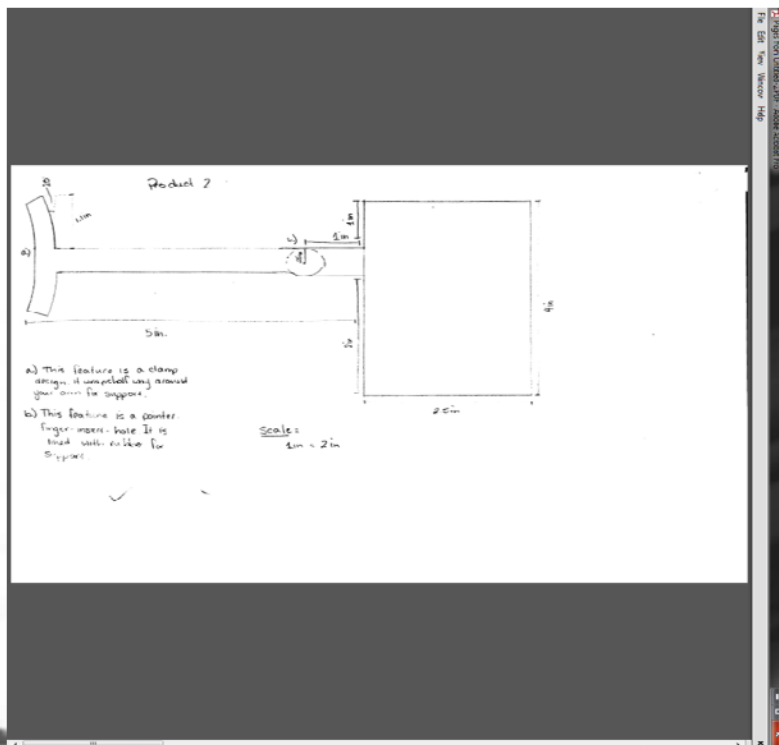
- Coffee mug with added arm support that goes halfway around your wrist
- 40.524in<sup>3</sup>
- Finger hole is added for pointer finger, this hole is lined with rubber for added comfort and support
- Cup is made from sturdy plastic that can withstand hot temperatures of coffee



## Selection Matrix

Selection Criteria		A		B		C		D		E	
		Product 1		Product 2		Product 3		Product 4		Product 5	
	Weight	Rate	Score	Rate	Score	Rate	Score	Rate	Score	Rate	Score
Cost	20%	3	.60	3	.6	3	.6	3	.6	3	.2
Level of Complication	20%	3	.60	2	.4	2	.4	4	.8	3	.6
Safety	25%	1	.25	2	.5	1	.25	1	.25	5	1
Light-weight	20%	2	.4	4	.8	5	1	2	.4	4	.8
Dishwasher-Safe	5%	4	.2	1	.05	3	.15	3	.15	4	.2
Size	10%	4	.4	3	.3	4	.4	3	.3	1	.1
	Total	2.45		2.65		2.8		2.5		2.9	
	Rank	5		3		4		2		1	

# Product We Chose



## Why?

- Sturdy Design
- Easily usable
- Safe
- Cheap
- Ranked the highest on our concept chart