

# Mr. Coffee Espresso Machine

---

*Jefferson Delgado*

*Allan Li*

*Thanh Tran*

*Antonio Whitehead*

# Introduction

---

**Model:** ECMP50

**Brand:** Mr. Coffee

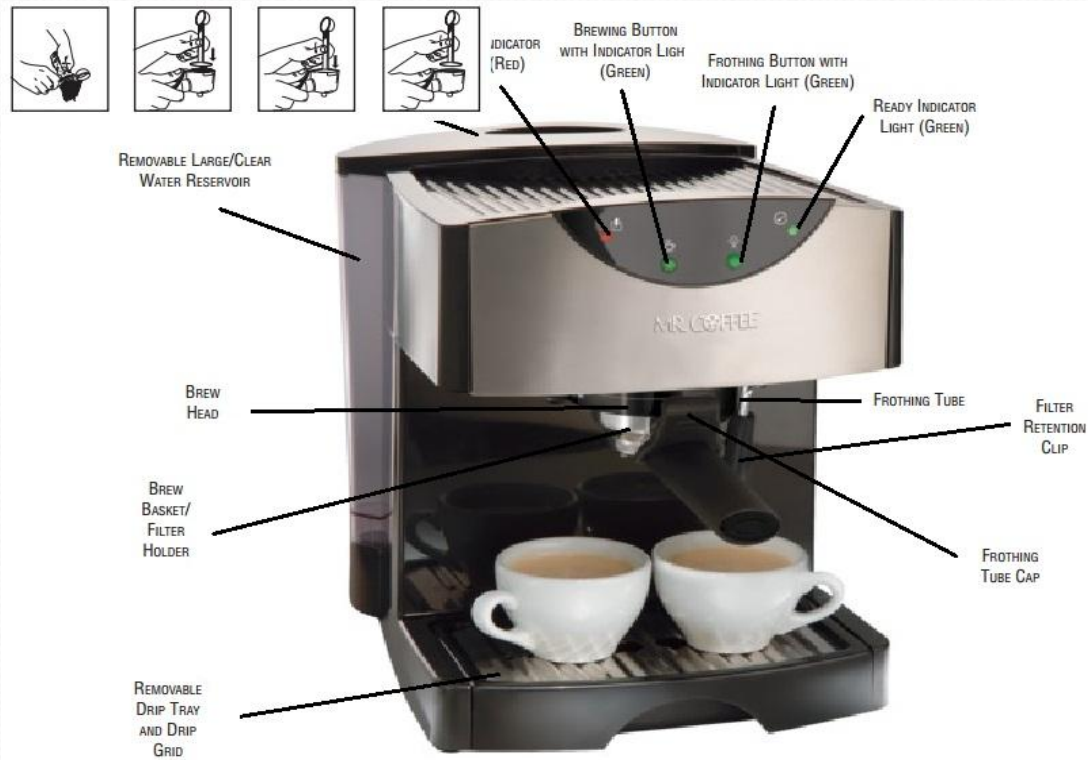
**Type:** Espresso Machine

**Features:**

- Automated pump
- Automated temperature controls
- Switches



# Diagram



# Goals

---

1. To find out if the coffee machine is easy to use and accessible for completely new users
2. To see if a person who has experience with other coffee machines can adapt to the ECMP-50
3. To figure out a way to improve and streamline the process of making coffee with this machine.

## Pre-Test Example

1. How old are you?

2. What is your gender? (circle one)

Male

Female

No Answer

3. To which racial or ethnic group(s) do you *most* identify with?

a. African-American (non-Hispanic)

b. Asian/Pacific Islander

c. Caucasian (non-Hispanic)

d. Latino or Hispanic

e. Native American or Aleut

f. Other

4. How would you describe your vision? (circle one)

Very good

Good

Okay

Bad

Very bad

5. How good are you at understanding instructions? (circle one)

Very good

Good

Okay

Bad

Very bad

6. Do you usually read instruction manuals?

a. Yes

b. No

7. How do you feel about machines?

a. What are machines?

b. I am a machine.

c. It's only a matter of time before they overtake us all.

d. I feel as ambivalent about them as I do about everything in this cold, dark universe.

<b>8. How much coffee do you drink per week?</b>				
a. 0 cups		c. 4-6 cups		
b. 1-3 cups		d. 7+ cups		
<b>9. Do you own a coffee maker?</b>				
a. Yes				
b. No				
<b>10. If so, what kind is it?</b>				
<b>11. How much did you buy it for?</b>				
<b>12. What is your opinion of your coffee machine?</b>				
a. Love it		d. Dislike it		
b. Like it		e. Hate it		
c. It's okay		f. N/A		
<b>13. Making coffee with an espresso maker is more convenient than waiting in line and having somebody else makes it.</b>				
Strongly Agree	<u>Agree</u>	Neutral	Disagree	Strongly Disagree
<b>14. What features would you look for in a coffee machine?</b>				
<b>15. Have you ever used an espresso machine?</b>				
a. Yes				
b. No				

# List of Tasks

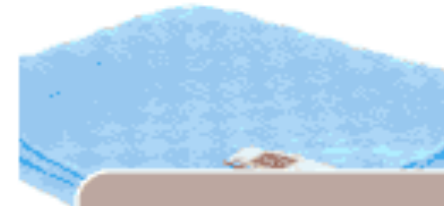
---



Make an  
Espresso



Make a  
Cappuccino



(Optional)  
Clean  
Station

# Process of Each Task

---

## Make an espresso

1. Fill the water reservoir
2. Turn on machine
3. Press espresso button
4. Tamp the espresso grounds
5. Place the handle of the puck holder that holds the grounds in the correct position
6. Turn the selection knob to the espresso option

## Make a Cappuccino

1. Make an espresso
2. Select a container for using the steam wand
3. Fill the  $\frac{1}{3}$  of the container with milk
4. Press steam button
5. Place container under steam wand
6. Remove container when an appropriate temperature has been reached
7. Mix the coffee and steamed milk

## Optional

1. Clean coffee reservoir
2. Clean steam wand
3. Remove espresso grounds from puck holder



## Post-Test Example

1. Was this your first time using this product?

- a. Yes
- b. No

2. Rate the experience from 1 to 10 (10 = the best, 1 = the worst).

3. How much money would you spend on it?

- a. \$0 - \$49
- b. \$50 - \$99
- c. \$100 - \$149
- d. \$150+

4. Were you ever confused about what to do?

- a. Yes
- b. No

5. Did you know what the bar was for?

- a. Yes
- b. No

6. Did you understand all of the buttons?

- a. Yes
- b. No

7. Did you feel like the process took too long?

- a. Yes
- b. No

8. Making coffee with an espresso machine is more convenient than waiting in line and having somebody else makes it.

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

9. What would you improve about this machine?

10. If you have another type of coffee machine, would you quit using that one and switch to this?

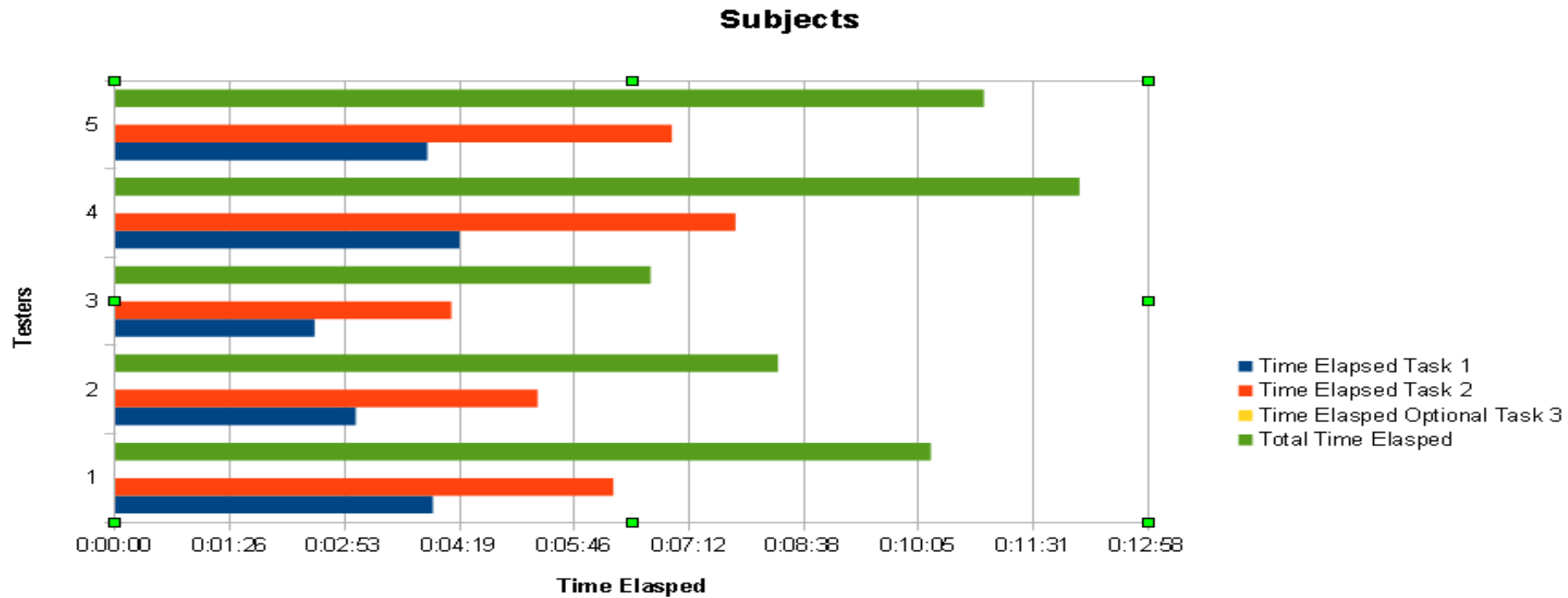
- a. Yes
- b. No

# Analysis

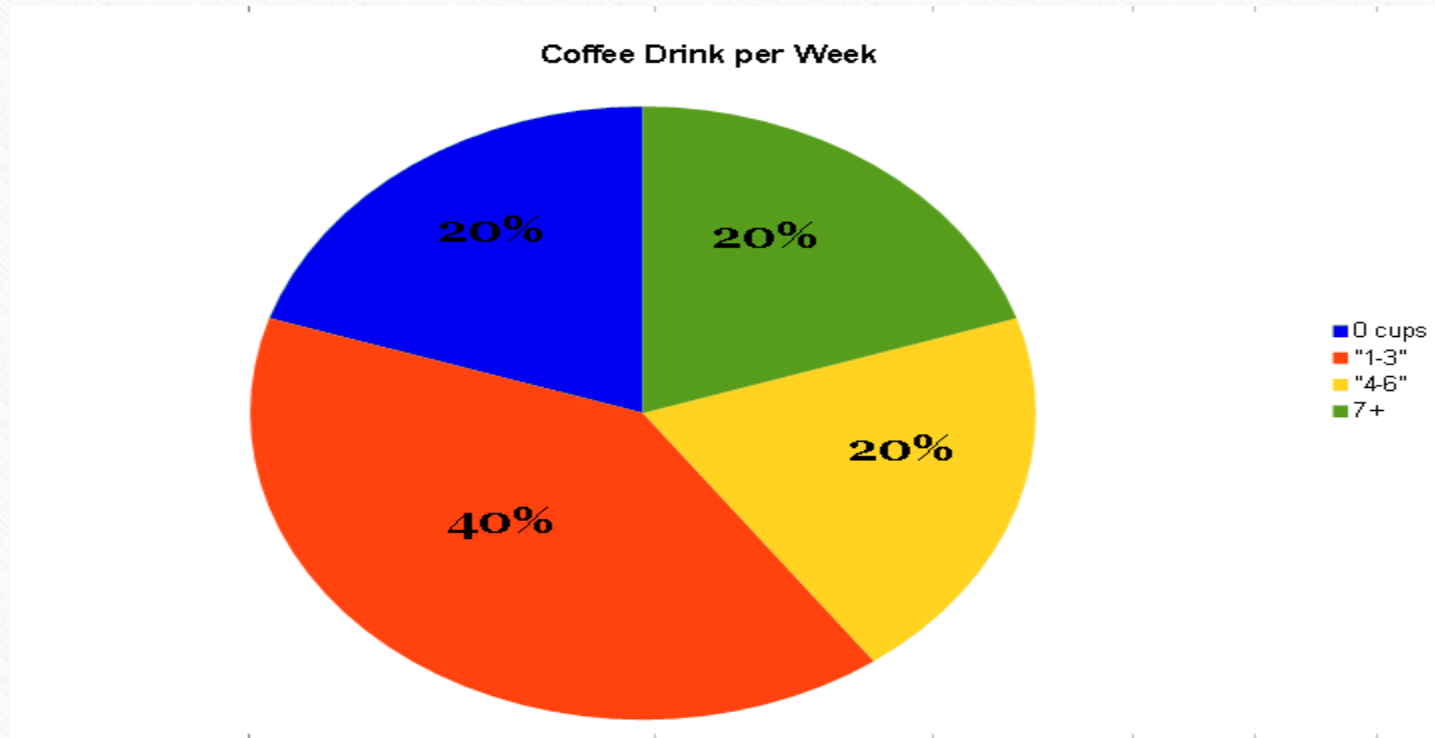
---

Subject	Time	Time	Time	Total	No. of
	Elapsed	Elapsed	Elapsed		
	Task 1	Task 2	Optional Task 3	Elapsed	Errors
1	0:03:59	0:06:15		0:10:14	4.00
2	0:03:01	0:05:18		0:08:19	3.00
3	0:02:30	0:04:13		0:06:43	0.00
4	0:04:19	0:07:47		0:12:06	7.00
5	0:03:55	0:06:59		0:10:54	4.00
<b>Average</b>	0:03:33	0:06:06		0:09:39	3.60

# Bar Graph

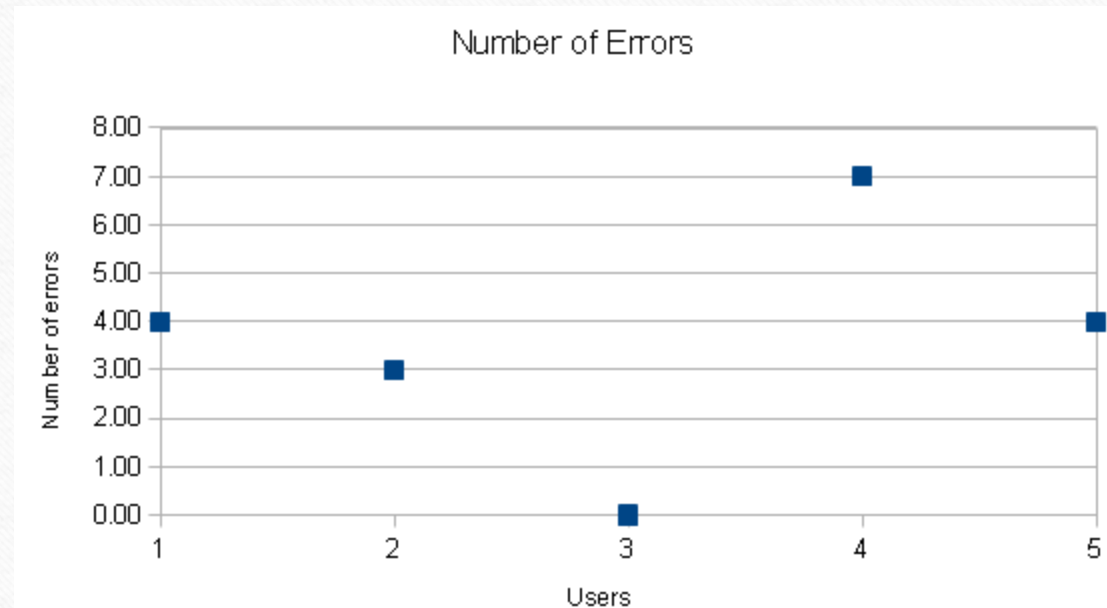


# Pie Graph



# Participant Errors

---



# Data

---

**Gender:** 80% male 20% Female

**Vision:** 40% Good/Very Good 40% Okay 20% Bad/very bad

**Read instruction:** 80% Yes 20% No

**Thoughts on machines:** 40% Positive 20% Negative 40% Ambivalent

**Own a coffee maker:** 60% Yes 40% No

**Satisfaction with coffee machine:**

**Convenience:** 100% disagree/Strongly Disagree

# Data

---

<b>Used an espresso machines:</b>	<b>20% Yes</b>	<b>80% No</b>
<b>First time using product:</b>	<b>80% Yes</b>	<b>20% No</b>
<b>Confusion during process:</b>	<b>60% Yes</b>	<b>40% No</b>
<b>Do you understood what the bar was for:</b>	<b>100% Yes</b>	
<b>Understood all the of the buttons:</b>	<b>80% Yes</b>	<b>20% No</b>
<b>Takes too long:</b>	<b>80% Yes</b>	<b>20% No</b>
<b>Convenient:</b>	<b>0% Agree or Strongly Agree</b>	<b>20% Neutral</b>
	<b>80% Disagree or Strongly Disagree</b>	

# Suggestions/Opinions

---

## **Preferred features**

- Self-cleaning, little effort, alarm, espresso option, small, minimal buttons, nice design

## **Suggested improvements**

- Make steam wand more quiet
- built-in timer
- built-in thermostat
- actual descriptions on buttons
- self-cleaner



# Conclusion

---

- Rated overall: 5/10
- Usability testing
- Identify the problem
- Data results
- Evaluate interfaces
- Interface design of the Mr. COFFEE ECMP50 espresso machine