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DARPA PTG Evaluation Tasks Vol. 1

Recipes for November 2022
TA1 Demonstration and Evaluation

Version 1.2

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Introduction

This document contains the tasks (recipes) and equipment that will be used to evaluate each TA1 PTG system for the first phase of evaluations in fall of 2022.

Recipes were developed with a few things in mind. First, the recipes should be easy to perform repeatedly in a laboratory or office environment and not require large appliances. Second, the actions should correspond loosely to military-relevant actions so that the TA1 technologies are easier to generalize to the military domain in future phases. However, the recipes are still appropriate for models trained using academic cooking datasets. Third, the recipes contain a mix of very granular instructions and steps that may include a series of related sub-actions. Training/operating manuals for medics and pilots were used as reference, and it is expected that PTG systems will need to be able to ingest a variety of types of documentation/instruction.

Each recipe contains a) list of ingredients and measurements, b) list of tools and utensils, c) instructions, and d) photos for context. The photos are intended for illustration purposes, and may not represent the exact equipment to be used during evaluation.

A shopping list is provided to reduce complexity.

Recipes

Recipe A: Pinwheels

Ingredients

1 8-inch flour tortilla

Jar of nut butter or allergy-friendly alternative (such as sunbutter, soy butter, or seed butter)

Jar of jelly, jam, or fruit preserves

Tools and Utensils

cutting board

butter knife

paper towel

toothpicks

~12-inch strand of dental floss

plate

Steps

1. Place tortilla on cutting board.
2. Use a butter knife to scoop nut butter from the jar. Spread nut butter onto tortilla, leaving 1/2-inch uncovered at the edges.
3. Clean the knife by wiping with a paper towel.
4. Use the knife to scoop jelly from the jar. Spread jelly over the nut butter.
5. Clean the knife by wiping with a paper towel.
6. Roll the tortilla from one end to the other into a log shape, about 1.5 inches thick. Roll it tight enough to prevent gaps, but not so tight that the filling leaks.
7. Secure the rolled tortilla by inserting 5 toothpicks about 1 inch apart.
8. Trim the ends of the tortilla roll with the butter knife, leaving $\frac{1}{2}$ inch margin between the last toothpick and the end of the roll. Discard ends.
9. Slide floss under the tortilla, perpendicular to the length of the roll. Place the floss halfway between two toothpicks.
10. Cross the two ends of the floss over the top of the tortilla roll. Holding one end of the floss in each hand, pull the floss ends in opposite directions to slice.
11. Continue slicing with floss to create 5 pinwheels.
12. Place the pinwheels on a plate.

Photos



Items needed (*not exact equipment)



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6a



Step 6b



Step 7



Step 8



Step 9-10a



Step 10b



Step 11



Final

Recipe B: Pour-over Coffee

Ingredients

12 oz water

25 grams whole coffee beans

Tools and Utensils

2-cup liquid measuring cup

electric kettle

kitchen scale

coffee grinder

filter cone dripper (stainless steel)

paper basket filter (standard 8-12 cup size)

12-ounce coffee mug

thermometer

timer (optional)

Steps

NOTE: Teams are strongly encouraged to leave the kettle unplugged to improve safety.

1. Measure 12 ounces of cold water and transfer to a kettle.
2. Assemble the filter cone. Place the dripper on top of a coffee mug.
3. Prepare the filter insert by folding the paper filter in half to create a semi-circle, and in half again to create a quarter-circle. Place the paper filter in the dripper and spread open to create a cone.
4. Weigh the coffee beans and grind until the coffee grounds are the consistency of coarse sand, about 20 seconds. Transfer the grounds to the filter cone.
5. Check the temperature of the water.
6. Pour a small amount of water in the filter to wet the grounds. Wait about 30 seconds.
7. Slowly pour the rest of the water over the grounds in a circular motion. Do not overfill beyond the top of the paper filter.
8. Let the coffee drain completely into the mug before removing the dripper. Discard the paper filter and coffee grounds.

Changes compared to version 1.1:

1. Measure 12 ounces of cold water and transfer to a kettle. ~~Boil the water.~~
2. ~~While the water is boiling~~, assemble the filter cone. Place the dripper on top of a coffee mug.
3. Prepare the filter insert by folding the paper filter in half to create a semi-circle, and in half again to create a quarter-circle. Place the paper filter in the dripper and spread open to create a cone.
4. Weigh the coffee beans and grind until the coffee grounds are the consistency of coarse sand, about 20 seconds. Transfer the grounds to the filter cone.
5. ~~Once the water has boiled~~, check the temperature of the water. ~~The water should be between 195-205 degrees Fahrenheit or between 91-96 degrees Celsius. If the water is too hot, let it cool briefly.~~
6. Pour a small amount of water in the filter to wet the grounds. Wait about 30 seconds ~~for coffee to bloom. You will see small bubbles or foam on the coffee grounds during this step.~~
7. Slowly pour the rest of the water over the grounds in a circular motion. Do not overfill beyond the top of the paper filter.
8. Let the coffee drain completely into the mug before removing the dripper. Discard the paper filter and coffee grounds.

Photos



Items needed (*not exact equipment)



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Step 7



Step 8



Final

Recipe C: Mug Cake

Ingredients

2 Tablespoons all-purpose flour
1.5 Tablespoons granulated sugar
 $\frac{1}{4}$ teaspoon baking powder
Pinch salt
2 teaspoons canola or vegetable oil
2 Tablespoons water
 $\frac{1}{4}$ teaspoon vanilla extract
Container of chocolate frosting (premade)

Tools and Utensils

measuring spoons
small mixing bowl
whisk
paper cupcake liner
12-ounce coffee mug
plate
microwave
zip-top bag, snack or sandwich size
scissors
spoon
toothpick

Steps

1. Place the paper cupcake liner inside the mug. Set aside.
2. Measure and add the flour, sugar, baking powder, and salt to the mixing bowl.
3. Whisk to combine.
4. Measure and add the oil, water, and vanilla to the bowl.
5. Whisk batter until no lumps remain.
6. Pour batter into prepared mug.

7. Microwave the mug and batter on high power for 60 seconds.
8. Check if the cake is done by inserting a toothpick into the center of the cake and then removing. If wet batter clings to the toothpick, microwave for an additional 5 seconds. If the toothpick comes out clean, continue.
9. Invert the mug to release the cake onto a plate. Allow to cool until it is no longer hot to the touch, then carefully remove paper liner.
10. While the cake is cooling, prepare to pipe the frosting. Scoop 4 spoonfuls of chocolate frosting into a zip-top bag and seal, removing as much air as possible.
11. Use scissors to cut one corner from the bag to create a small opening $\frac{1}{4}$ -inch in diameter.
12. Squeeze the frosting through the opening to apply small dollops of frosting to the plate in a circle around the base of the cake.

Photos



Items needed (*not exact equipment)



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Step 7



Step 8



Step 9



Step 10



Step 11



Step 12



Final

