Hey MIT Admissions!

I hope you're doing well! In my February Updates and Notes form, I talked about my developing passion for designing 3D printed puzzles, and thought the best way to share these is by mailing you some to try! The puzzles I've designed are inspired by the Akaki's Picnic puzzle series. The goal for each puzzle is to fit all of the pieces into the picnic basket so that the pieces are flush with the top of the box. There can be holes inside of the box, but there can be no holes visible on the top. A combination of linear and rotary movements are required to fit all of the pieces in, and no force is necessary to move any of the pieces.

MIT Basket: just for you guys! When the pieces are lined up, they spell out MIT. There's some very unique rotations in this puzzle that make it more challenging than the others, but the solution is very rewarding. The constraint for this puzzle is that the letters M - I - T must be visible on the top layer when the basket is solved.

Popcorn Basket: one of my personal favorites! This puzzle comes with an additional constraint: you must put the "popcorn" inside the basket so that the "candies" (the non-yellow voxels) are not visible on top. This puzzle has two solutions, with one being more difficult. Both are extremely fun to find, so see if you can find them both! See the hints doc for more details.

Pizza Basket: a little bit more challenging than Popcorn Basket. The large "cheese" and "crust" pieces aren't too hard to fit into the box, but fitting the three small pieces, "pepperoni," "olive," and "jalapeno," is tricky. This puzzle does not have any constraints.

Some tips for solving:
- Try making a 3x3x3 cube (potentially with holes on the bottom and middle layers) outside of the picnic basket before attempting to put the pieces in.
- Manipulate each piece individually in an empty picnic basket to see how it can move.
- Imagine the configuration you're trying to achieve, and work backwards in your head.

I hope you enjoy them, and if you ever get stuck, feel free to email me at kareemjaber8@gmail.com. Hints and more info about Popcorn Basket are up on github.com/KareemSaysHi/Picnic-Puzzles, and I'll put the solutions up there too in a week or so.

Happy solving!

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