

# OZOBOT CUBE CHALLENGES:

## How To Use These Cubes

These cubes are designed to be used as coding challenges. You may play alone, against a partner, or in teams of 2-3 against other teams.

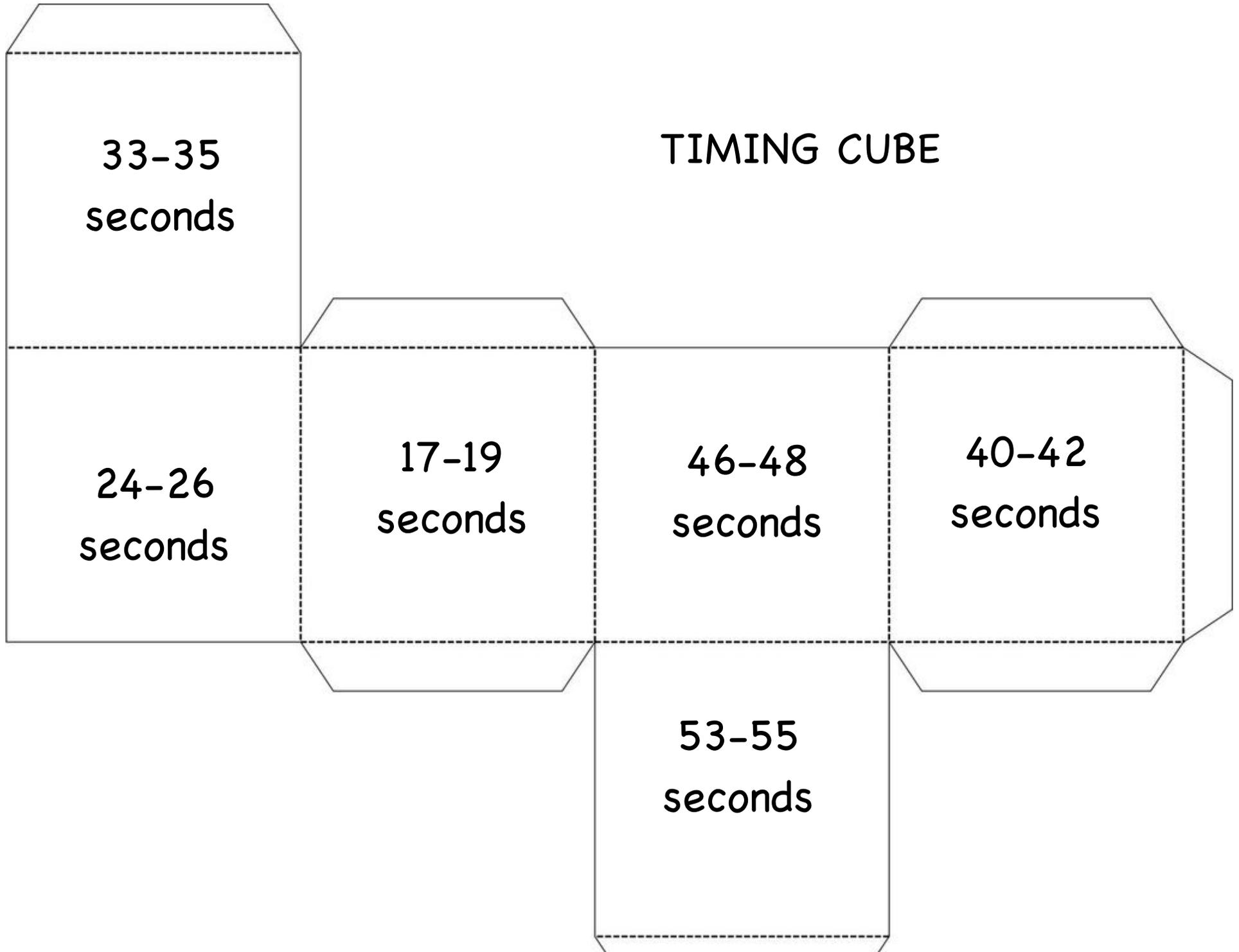
### Materials Needed:

1. First, print, cut out, and assemble the four cubes on the following pages.
2. Give each person or team access to 8 ½ by 11 paper.
3. Give each person or team a stopwatch or something with which to keep time.
4. Give each person or team a printed sheet of the Color Code Reference Chart for all Ozocodes
5. Optional recommendation/suggestion: Codes can be printed (small) and cut out so that they can be repositioned at various places along the course as needed. This will help players use less paper and avoid repeatedly having to draw whole new courses.

### Directions for the Challenge:

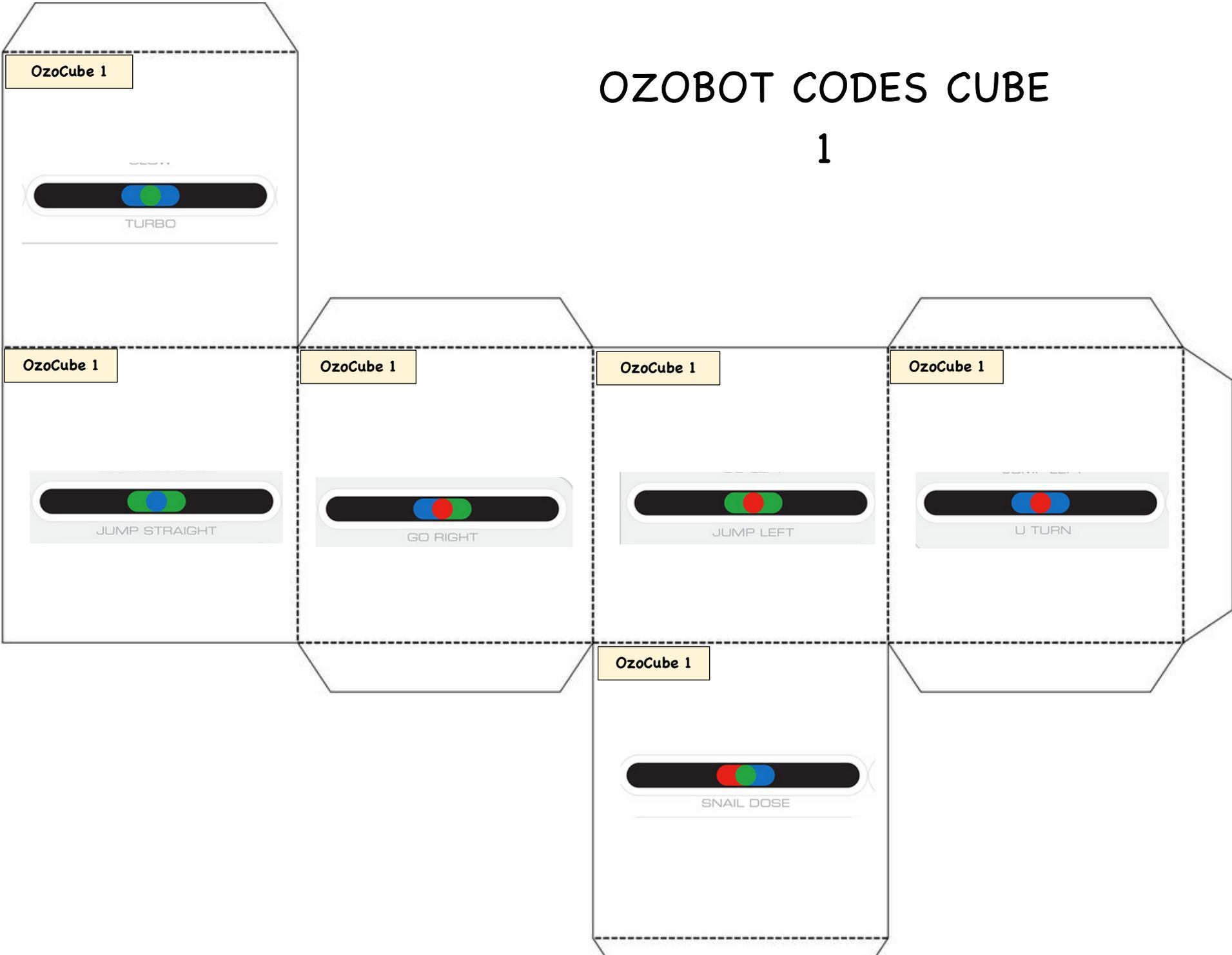
- Someone should roll the timing cube first. This will determine how long the OZOBOT has to complete the course that is created.
- Someone should roll the other three cubes. These will determine three Ozocodes that **MUST** be incorporated into the course at least once.
  - The codes from the cubes may be used more than once.
  - Players may use any other codes of their choice when designing their course as well.
  - Players or teams will draw a course (line design) on their paper. They may use any of the colors (black, red, blue, green).
  - Players or teams **MUST** include the three required cube Ozocodes that were rolled, and they may place these at any place along the course. They may use any other codes, as well. The goal is to create a course that the OZOBOT can complete in the specified time range.
  - Using the recommended small cutout Ozocodes (see Material #5) will allow players to easily move the codes and adjust the times without rewriting the entire course each time. They can just slide/adjust the placement of each code until their OZOBOT can complete the course in the time range.
  - Teams need to test their OZOBOT's course time with a stopwatch or timer **three** separate times before calling a teacher, judge, or other person to validate that their OZOBOT meets the time requirement.
  - The first person or team to have their OZOBOT complete the course – using the three required Ozocodes **AND** within the time range that was rolled on the timing cube – is the winner!

# TIMING CUBE

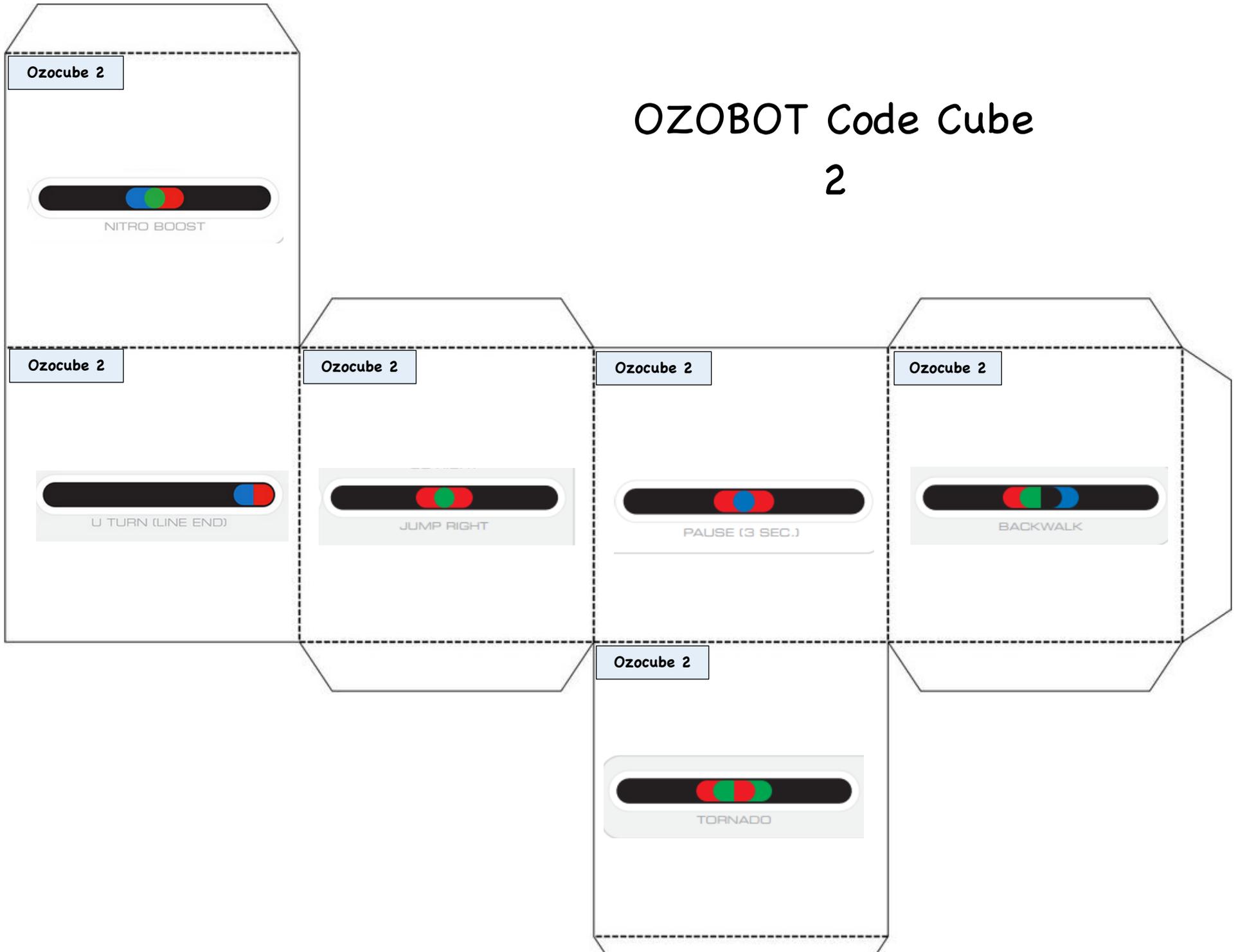


# OZOBOT CODES CUBE

1

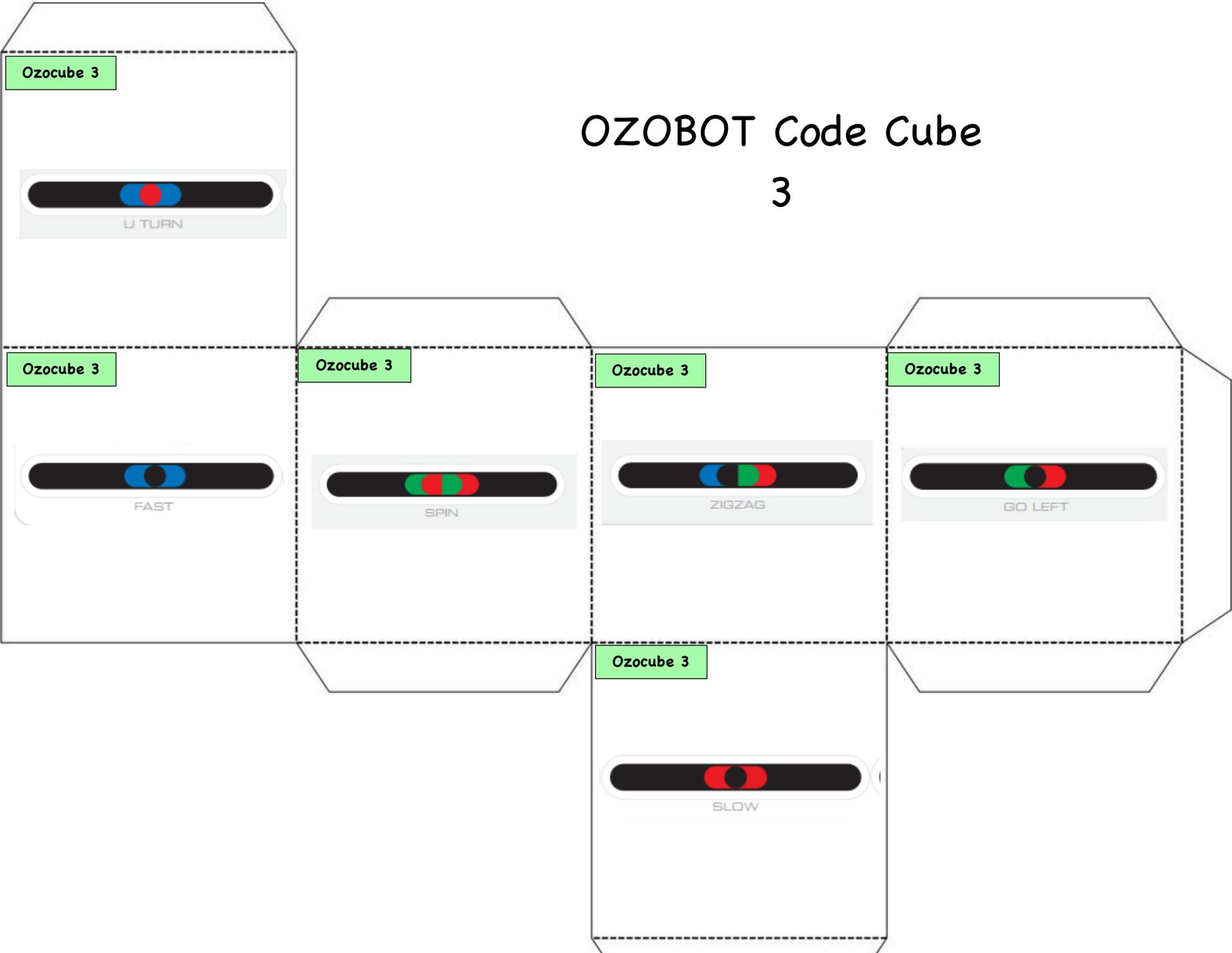


# OZOBOT Code Cube 2



# OZOBOT Code Cube

3



Hi! I just got my first pair of Ozobots last week and am honestly just starting to explore their capabilities. I'm following on Twitter and Facebook, and I'll continue to learn (probably from my students!)

I am an elementary school computer teacher in NJ, and I bought the Ozobots to use for a club I'm starting that does coding and hopefully a little robotics. I immediately realized that Ozobots do more than just follow a colored line! I started thinking like a teacher and wondering what I could have my students do that really taps into higher level thinking skills and problem-solving. I came up with a challenge game that I think might work well [...].

Thanks for an awesome product!

Kathi Kersznowski

*Elementary Computer Teacher*

Wedgwood Elementary School, Sewell, NJ 08080