



# 2020 Dream It! Do It! 500 Rule Book



**Challenge 1:** Your task is to construct a rubber band powered car that can travel as far, as fast, and as straight as possible. You may work individually, in pairs, or in a team of four.

- Look over materials in your kit (materials are for the basic design)
- Watch the DIDI 500 Video – [Visit DIDIWNY channel on YouTube](#)
- Create a blueprint of your car, keeping in mind materials in your kit
- You may also use household materials to enhance your car design
- If you need to purchase any materials, your cost limit is \$5.00
- **Exception: No pre-built wheels or motors**
- Build your car
- Refer to Insight from the Experts videos
- Test your car
- Video your car race – record distance, time, and calculate speed

**Challenge 2:** Your task is to video a commercial that will be part of the final judging process. Explain your car design, some problems you needed to solve, how your final race went, and why the outcome happened. Also, take a photo of your car.

**Time:** You will have until **January 16, 2021**, to construct your vehicle, submit your video, and record your data. **Possible** final race TBA.

**Final Scoring:** Your final data, video, and race determines the winner.

**Marketing:** There will also be one winner in each league for marketing.

## Quick Rules

- Build a rubber band powered car that can travel as far, as fast, and as straight as possible. **Your car can only be powered by the rubber bands.**
- Your kit includes materials for a basic DIDI 500 car but you may add household or classroom materials or purchased items (limit of \$5).
- **Household materials (materials not included in your kit and not purchased with your budget of \$5) may not be pre-built wheels or motors.**
- This year, innovation is the keyword. We want you to be creative, innovative, inventive, imaginative, ground breaking.... You get the picture!
- Be sure to watch the Insight from the Experts videos – some great pointers!
- Test your car! Keep in mind the 5 Whys – see video.
- Final scoring – your race score is based on distance, time, and speed  $S = D/T$ 
  - Distance = Nose at starting line to Nose crossing finishing line (or when car goes off the track – see video).
- Final presentation – make a commercial of how your car is the best!
- **If doing this at home, perhaps create a track (2' x 10') using masking tape.**