

STEM Zip Line Challenge

Build a carrier that can safely deliver your cargo (a ping pong ball) from the top of the zip line to the bottom using only the supplies listed below. The zip line should be 6 feet in length. It might be helpful to sketch out a design first before building your carrier. Once you have built a carrier that moves safely from top to bottom, you can use a stopwatch or timer to see how long it takes to travel the distance. Experiment with different designs. Which material (fishing line, string, or ribbon) makes the fastest zip line? What happens if you change the slope of the zip line? What happens if you add weight to the carrier?

Supplies included in kit:

- Fishing line – 6'
- String – 6'
- Ribbon – 6'
- Straws
- Cups
- Metal washers
- Cardstock
- Paper clips
- Pipe cleaners
- Dowels
- Ping Pong Ball

Supplies from home that might be helpful:

- Tape
- Hole punch
- Objects that can secure ends of zip line
- Stopwatch or timer

