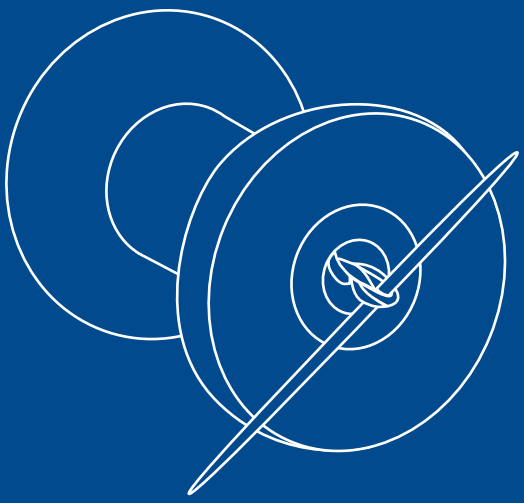
STEM



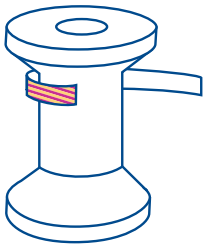
SPOOL RACER

POTENTIAL & KINETIC ENERGY STUDY

Build a spool racer. Decorate the spools with supplied racing stickers to customize your racer. Wind up the racer and watch it go! Note that too much winding will cause erratic racer behavior and will take it off course.

EMERSON™

SPOOL RACER INSTRUCTIONS:

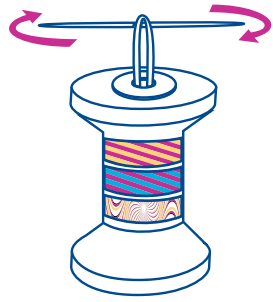


1
Decorate your spool with the included stickers.

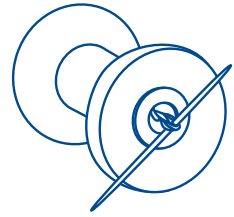
2
Thread rubber band through spool. Break one toothpick in half and insert through rubber band.

3
Tape toothpick and rubber band to spool with an included spool end sticker.

4
Turn over spool and insert rubber band through washer.



5
Insert whole toothpick through rubber band loop and wind it up.



6
Hold toothpick so it doesn't unwind, place it on its side on a table or floor and let it go!

TRY IT: Try using a pencil as the wind-up device and see what's different!

HOW IT WORKS:

Potential energy is stored energy. When you wind up the rubber band, this is stored energy. Once you release it, it becomes kinetic energy — the energy of motion.