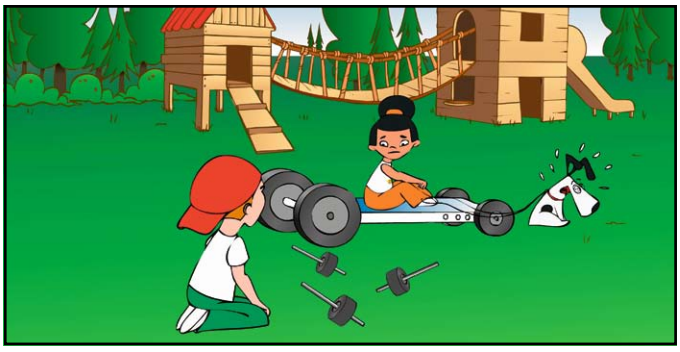
Flywheeler

Name(s): _____

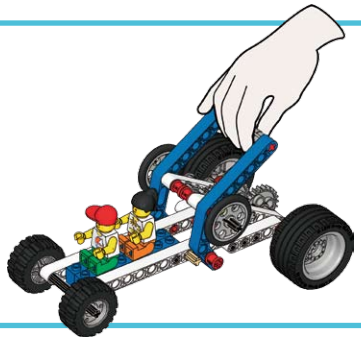


Could the spinning of a spinning top help a push-along car move, and will it travel further – and for a longer time? Let's find out!

Build the Flywheeler

(All of book 10A and book 10B to page 10, step 20.)

- Make sure it rolls smoothly
- If it stops too quickly, loosen bushings and make sure all other elements fit tightly



What makes a good flywheel?

Predict and test how far each model will roll:
- With at least three different flywheels or combinations
- With the same run-up
- Launched at the same speed

Optional: time how long each car rolls for

A

B

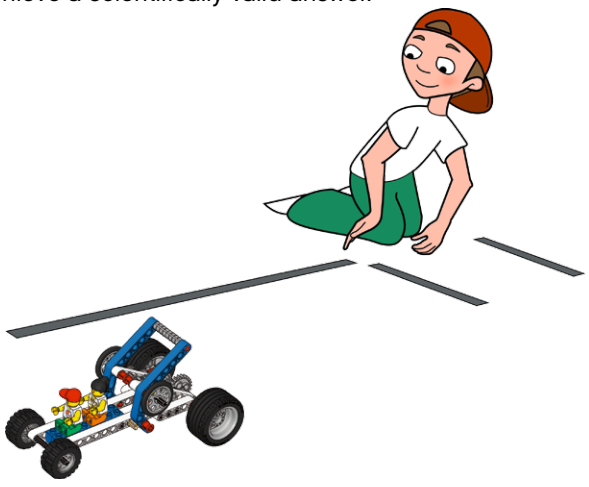
C

D

E

F

Test at least three times with each flywheel combination to achieve a scientifically valid answer.

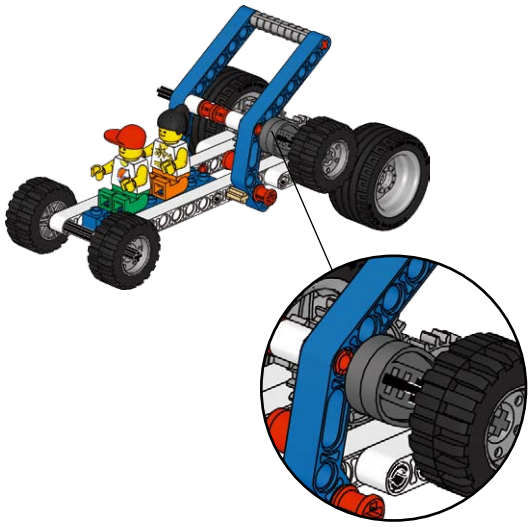


My combination	My prediction	Actual distance	Time
A+B			

Did you know?
In real life, an off-balance super fast flywheel can explode!

Shakey Brakey

Build to book 10B page 17, step 3.
What happens if your flywheel is unbalanced?



My prediction:

And this happened after testing:

Also try:

- Climbing up hills
- On smooth floors and carpets
- Climbing over an all-terrain obstacle course, e.g. a pile of LEGO® bricks!

My Fab Flywheeler

Draw and label your flywheeler design.
Explain how the three best parts work.