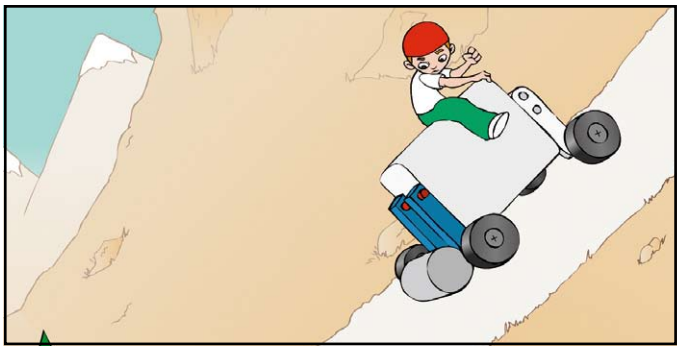
Power Car

Name(s):

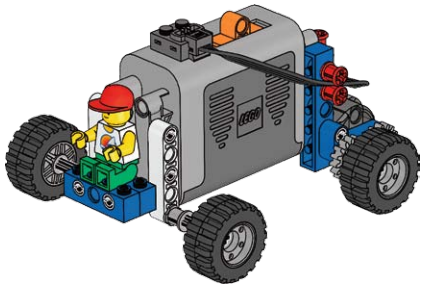


How can you make a Power Car that climbs hills? Let's find out!

Build the Power Car

(all of book 11A and book 11B to page 9, step 10)

- Turn on the motor by pushing the battery box switch forward
- Make sure all the wheels turn freely and do not rub on the sides of the Power Car

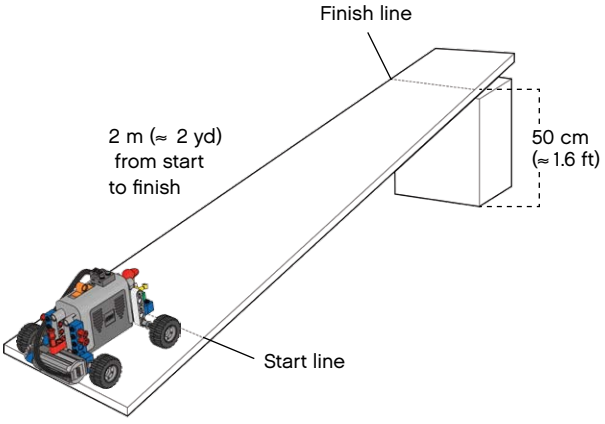


Which is the fastest uphill Power Car?

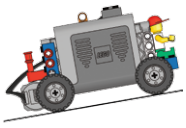
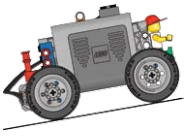
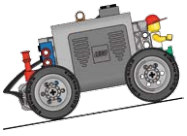
The Power Car needs to be as fast as possible when driving uphill.

- First predict how fast Power Car A will travel 2 m (≈ 2 yd) uphill. Then test your prediction. Next, follow the same procedure for Power Cars B, C and D.

- Test several times to make sure your results are consistent.



Tip:
The Power Car can travel very fast, even up hills, so it might be a good idea to put the ramp against the wall in a corner to prevent it going over the edge.

	My prediction	What happened?
A 		
B 		
C 		
D 		

Gear Ratios

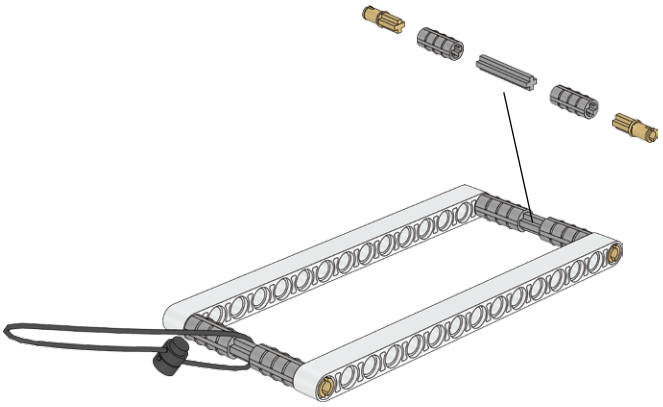
Car A 16:16
Car B 16:16
Car C 24:8
Car D 24:8

How strong is your Power Car?

Build a sled and attach it to your Power Car using a string around the hook at the rear.

Load the sled with books.

- First predict how heavy a load Power Cars A and C can pull. Then test which Power Car can pull the heaviest load.
- How heavy a load can your best Power Car pull?



	My prediction	My measurements
		
		

My Power Car

Draw and label your favorite Power Car design.
Explain how the 3 best parts work.