

# TINY TECHS CLUB

Creativity | Science | Technology





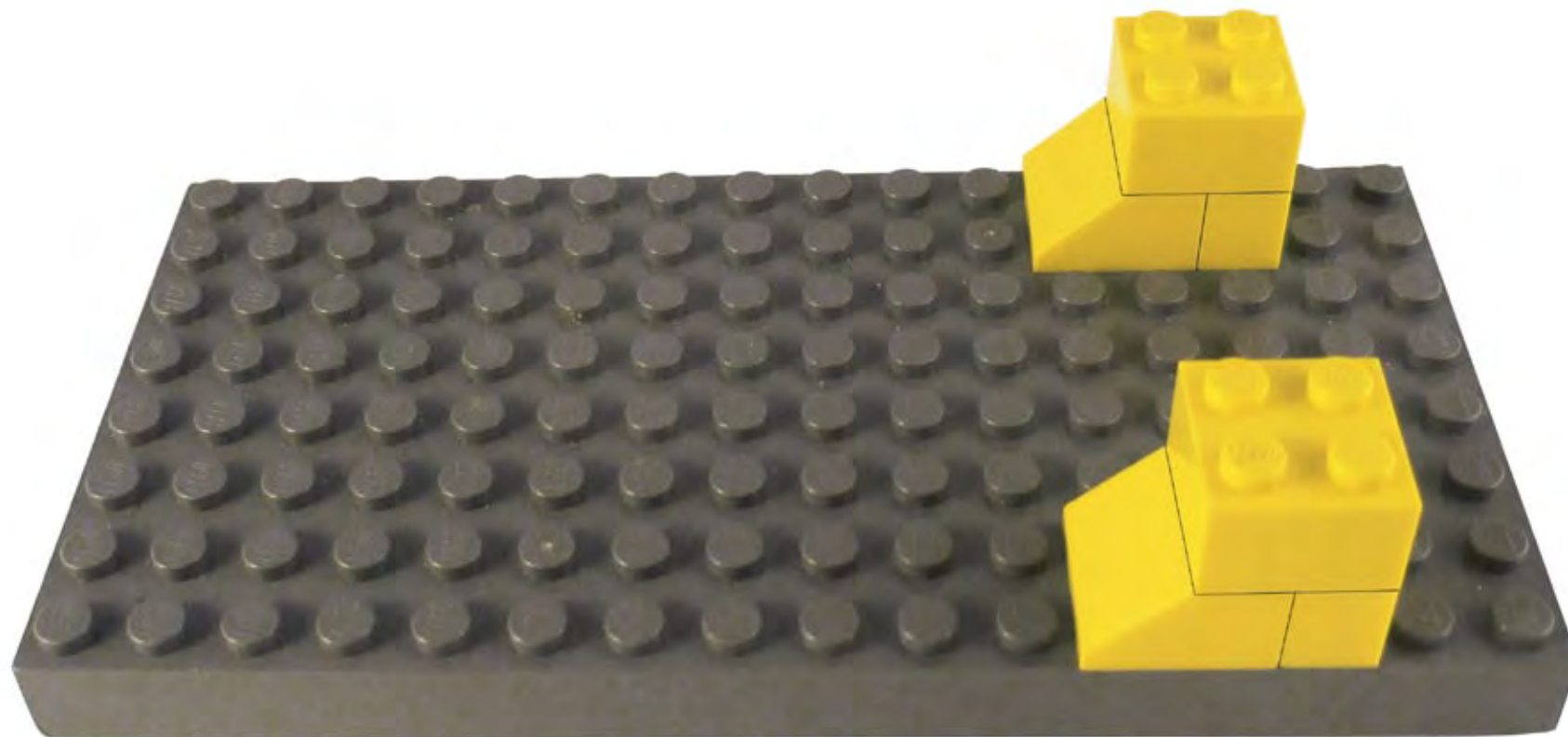
# Hippogriff

**READY TO FLY!!** Build this Fantasy creature and program it to raise and lower it's wings. Find out how the gears make the wings move.





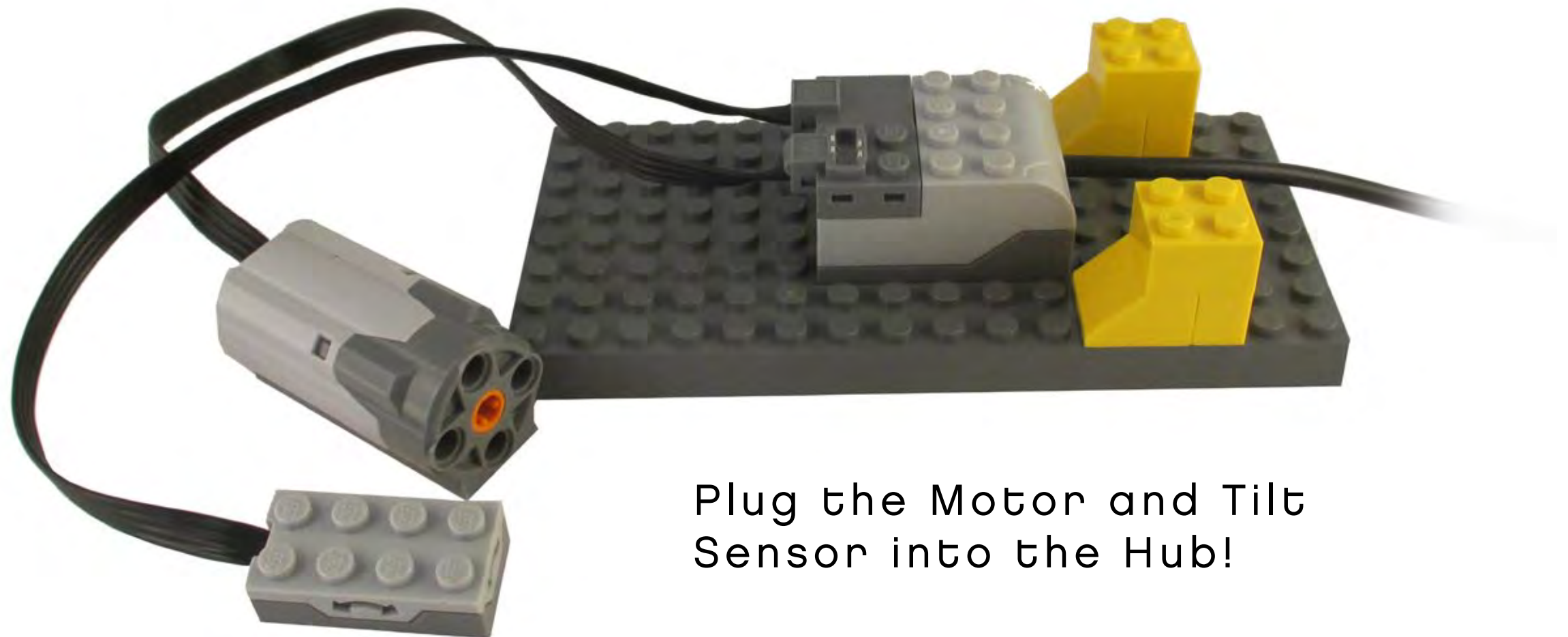
# Step 1





# Step 2

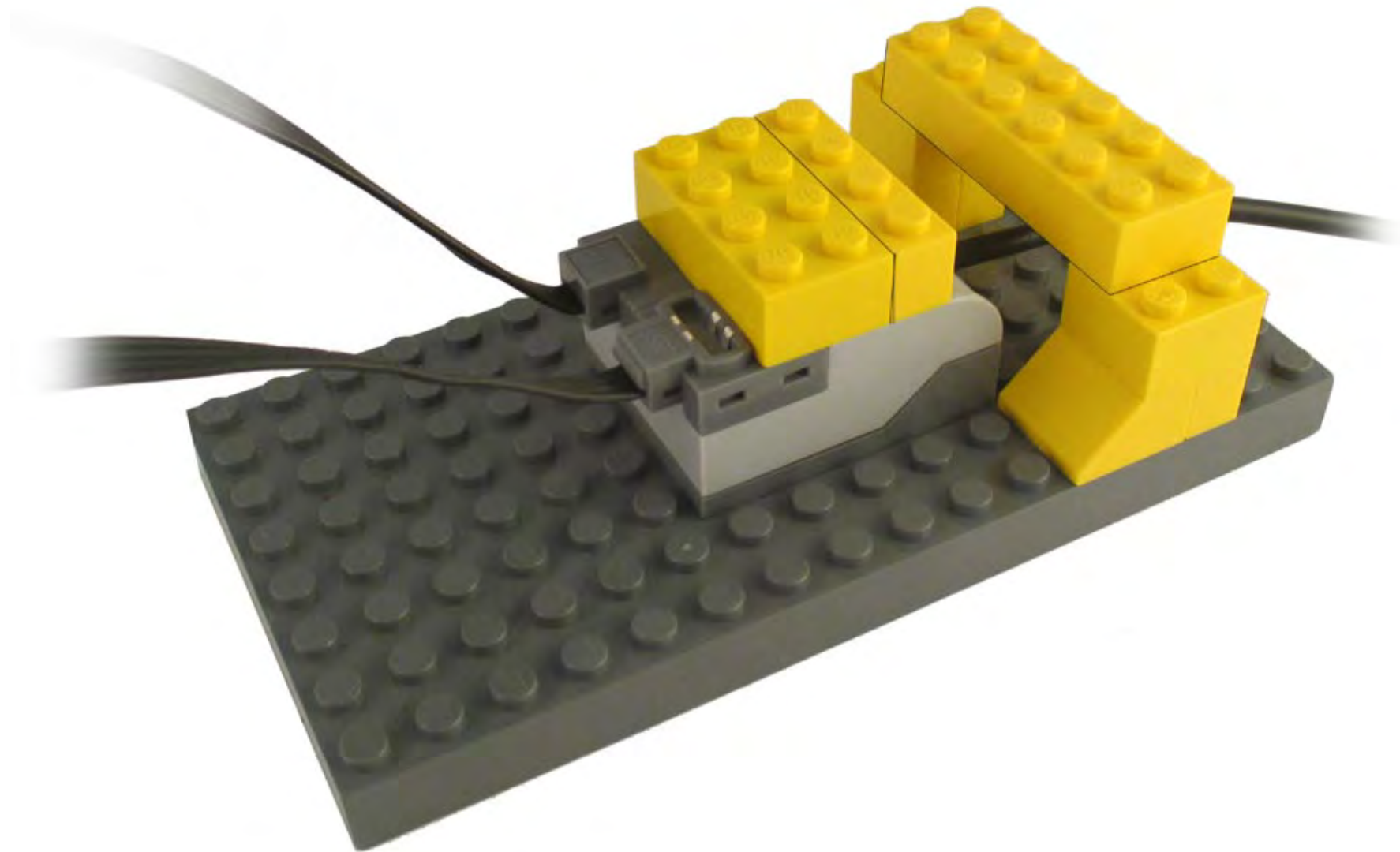
You will Need:



Plug the Motor and Tilt  
Sensor into the Hub!

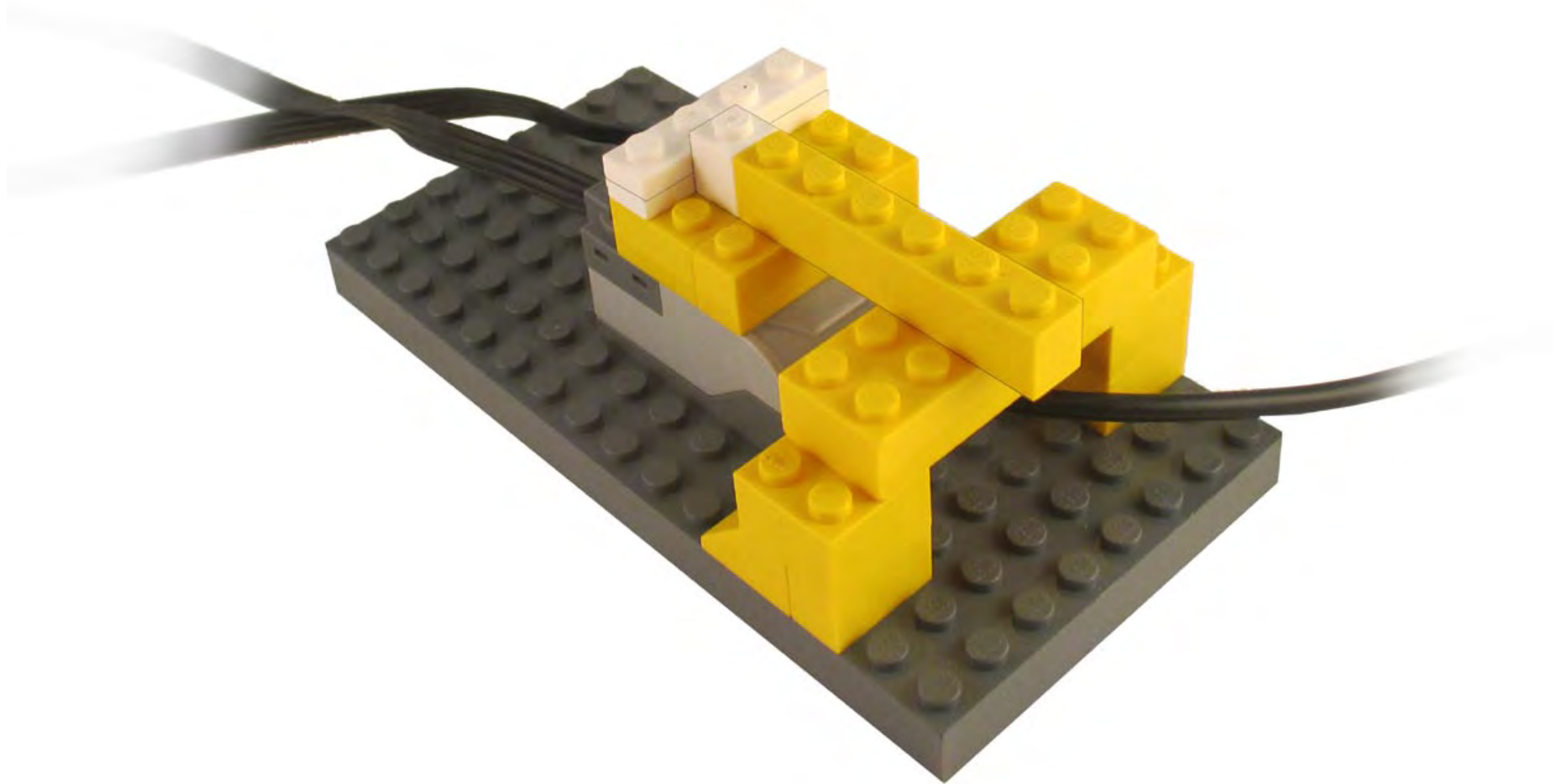


# Step 3





# Step 4





# Step 5

You will Need:



Black Pin



Black Pin

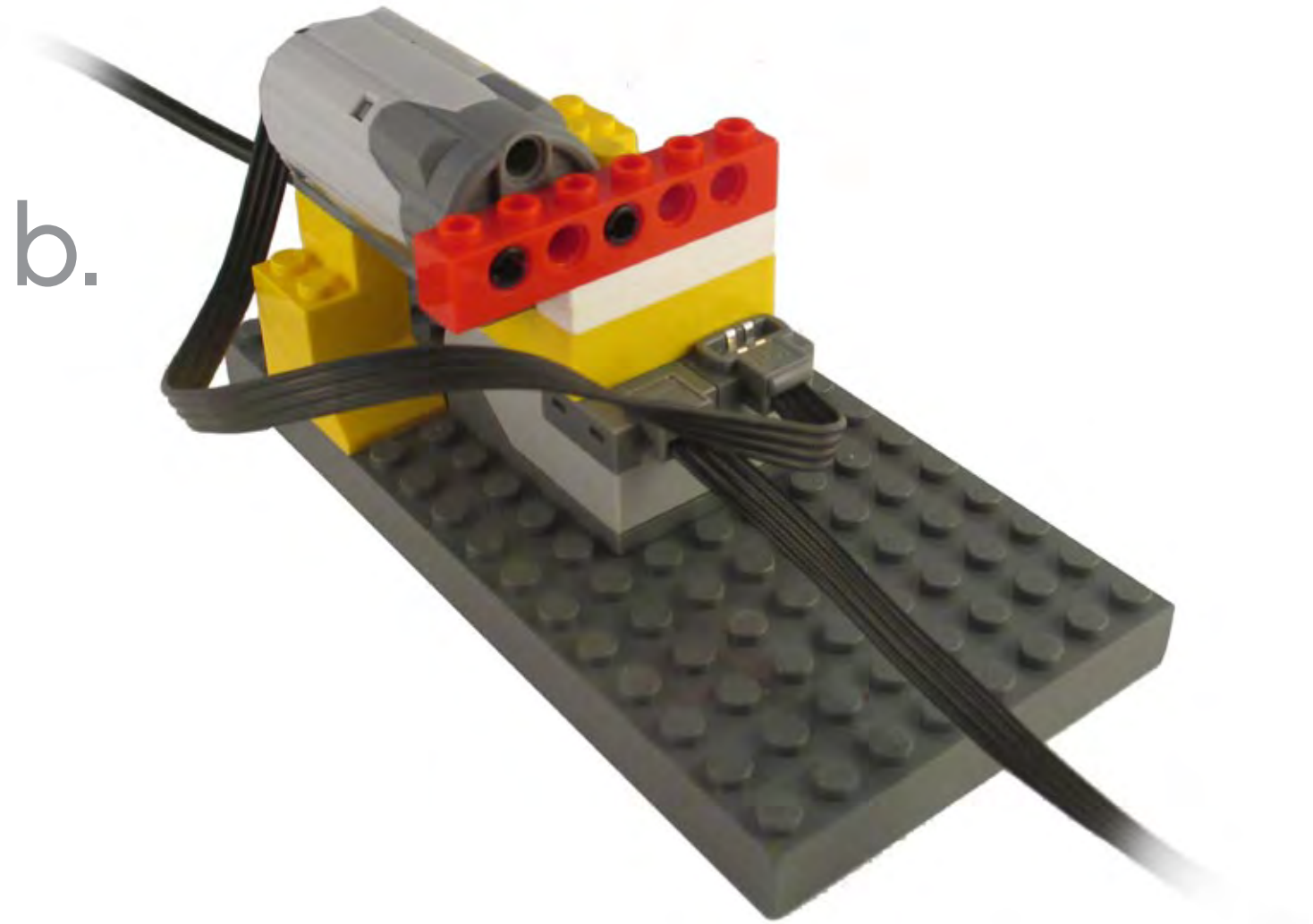


Red 1x6 with  
Holes

a.

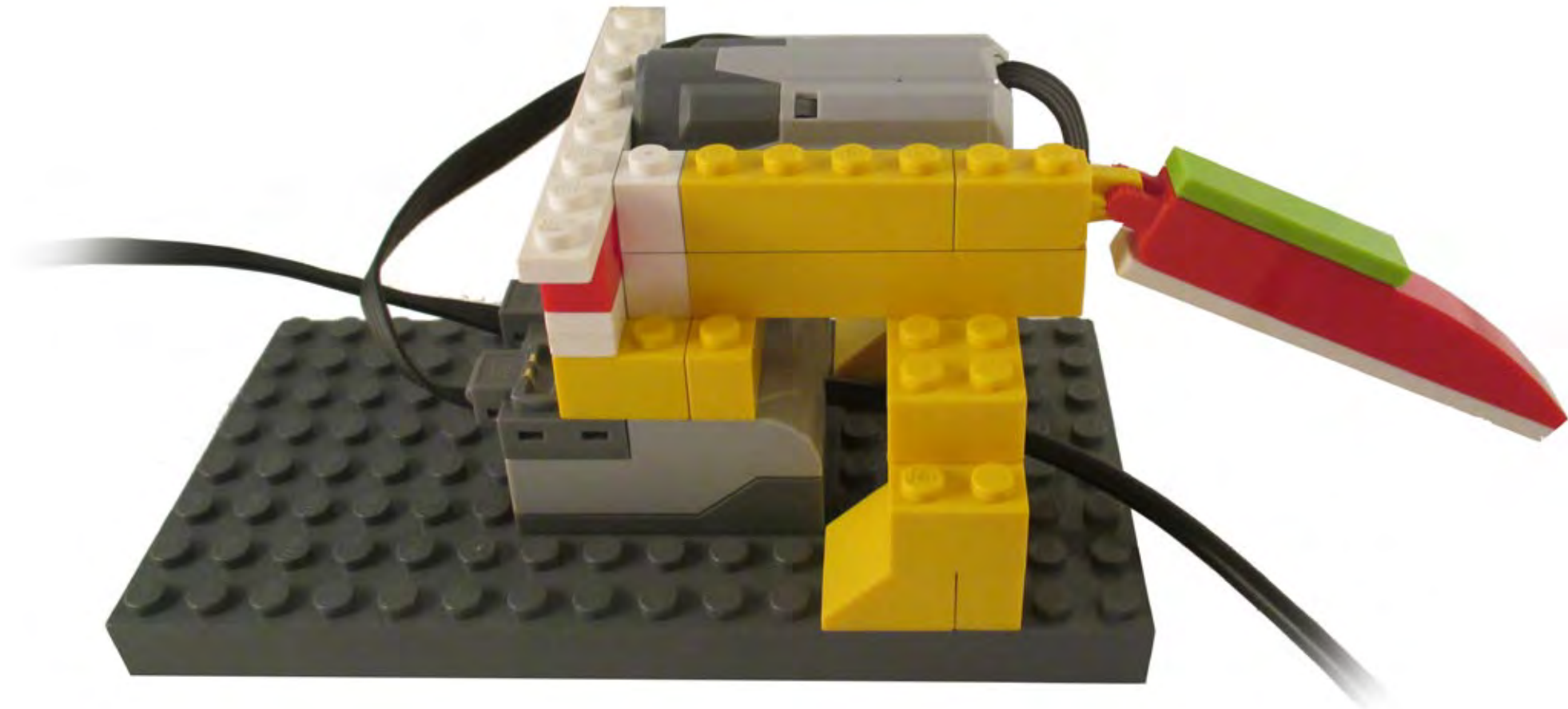


b.





# Step 6



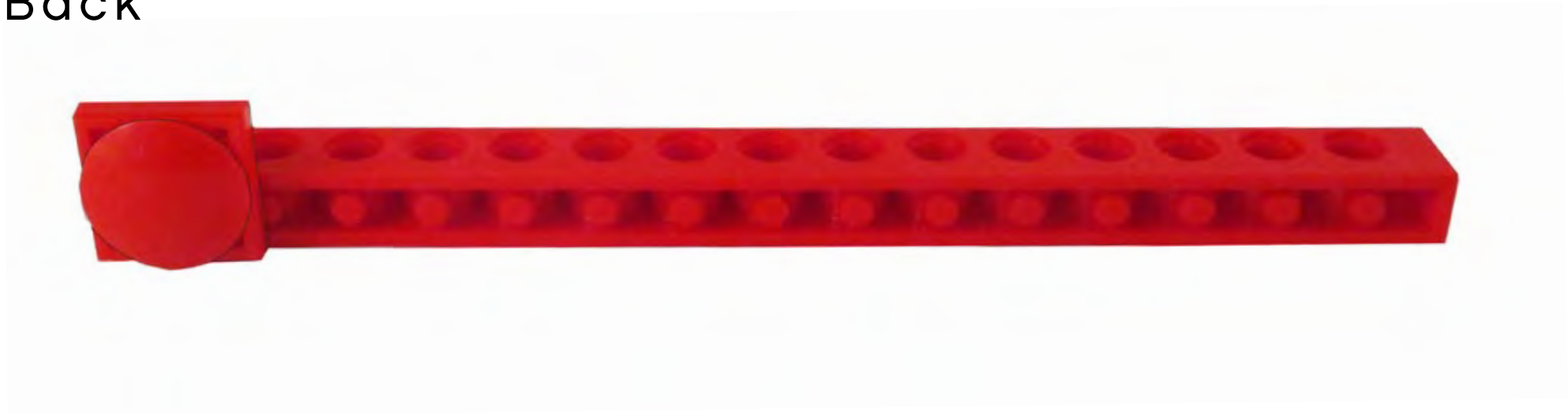


# Step 7

Front



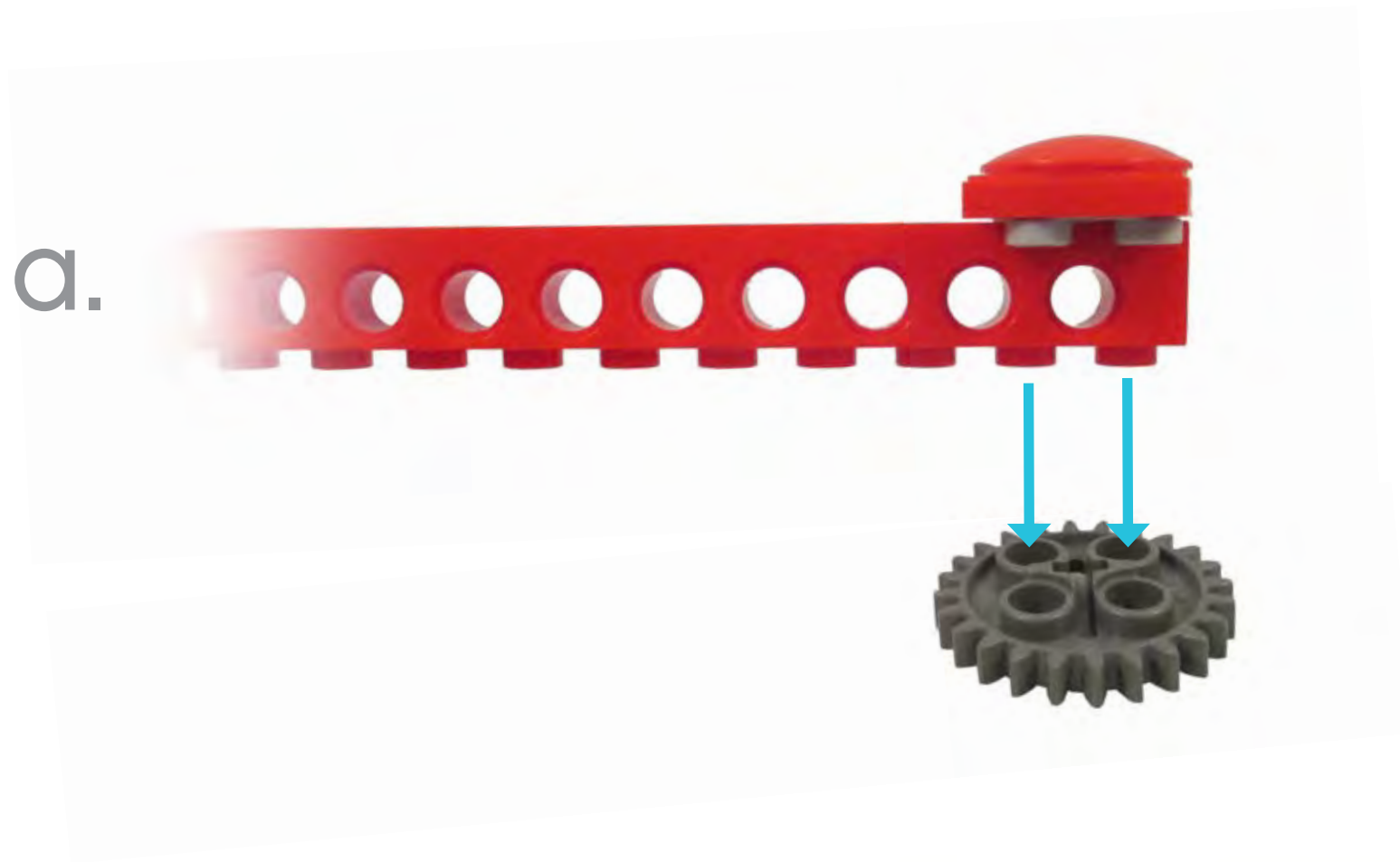
Back



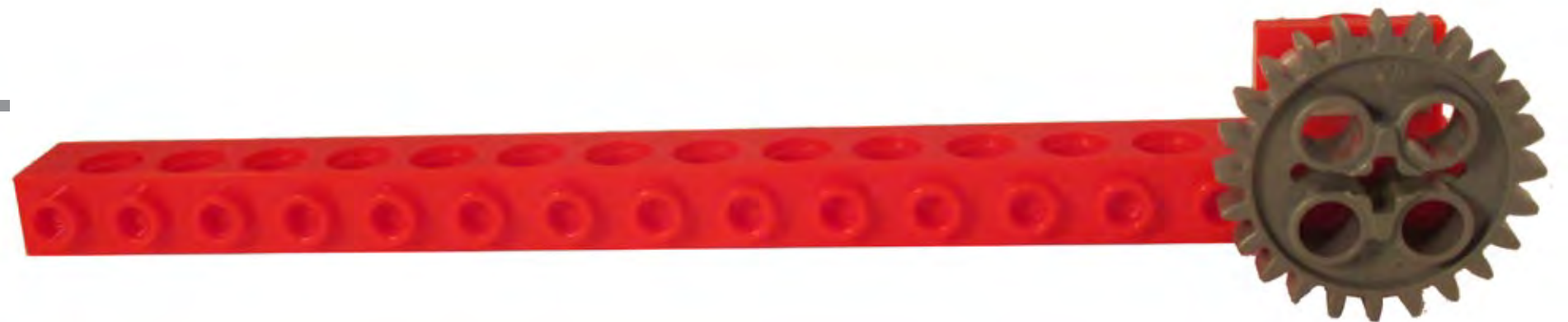


# Step 8

a.



b.





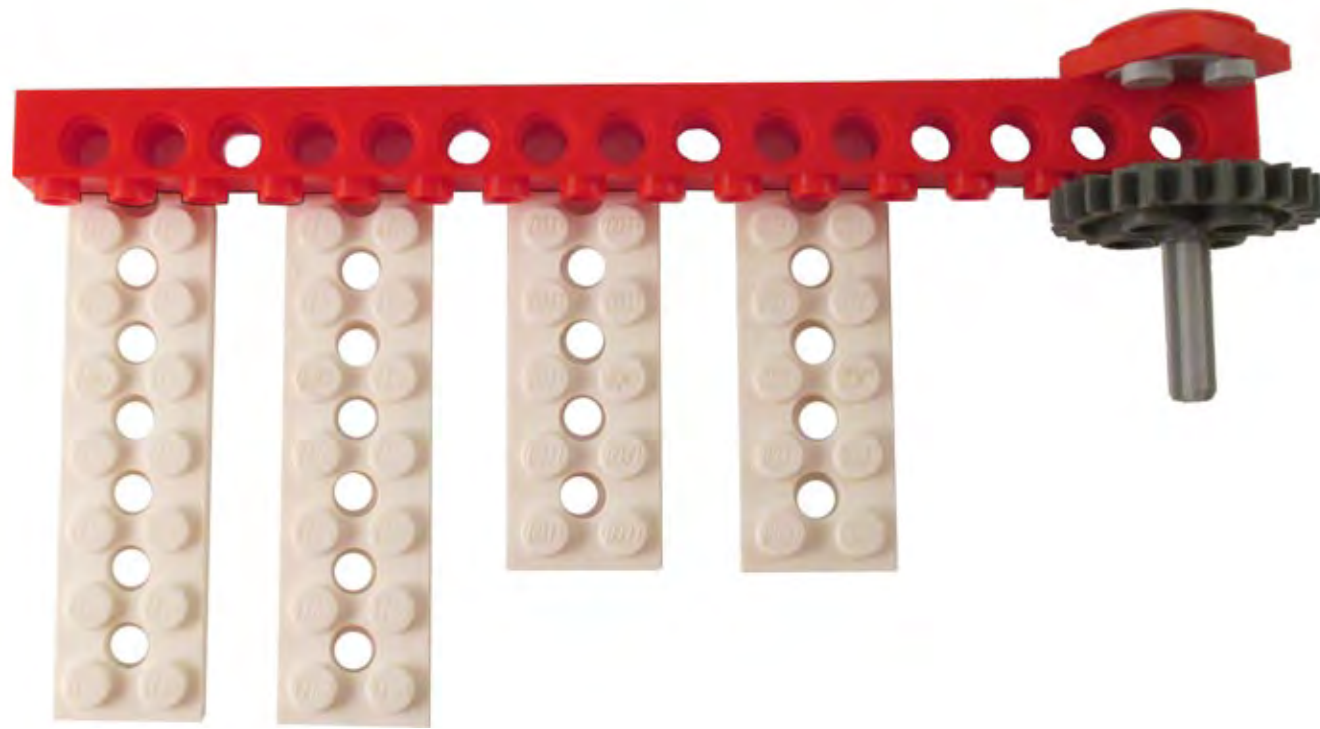
# Step 9



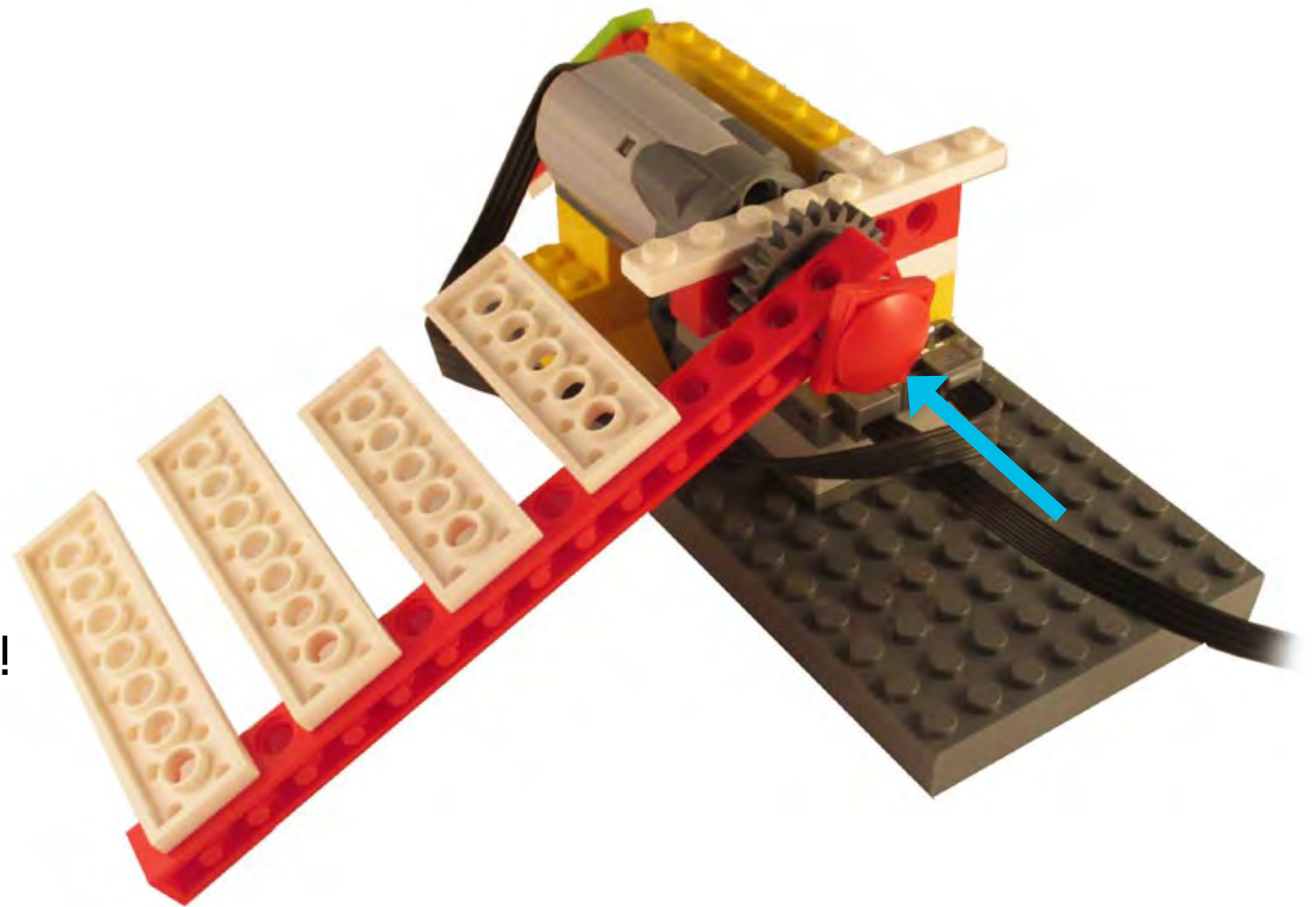


# Step 10

a.

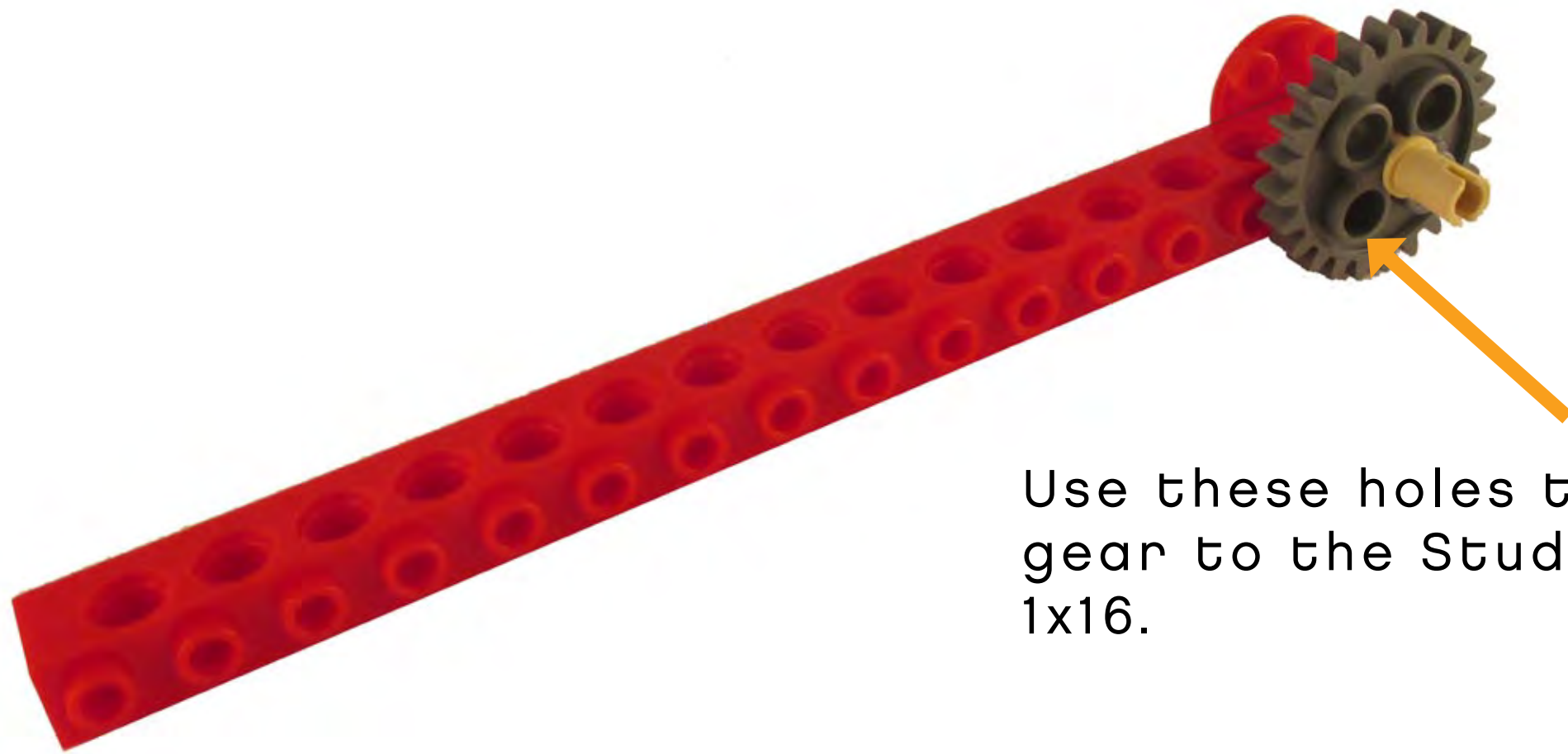


b. Push the Axle  
into the Motor!





# Step 11



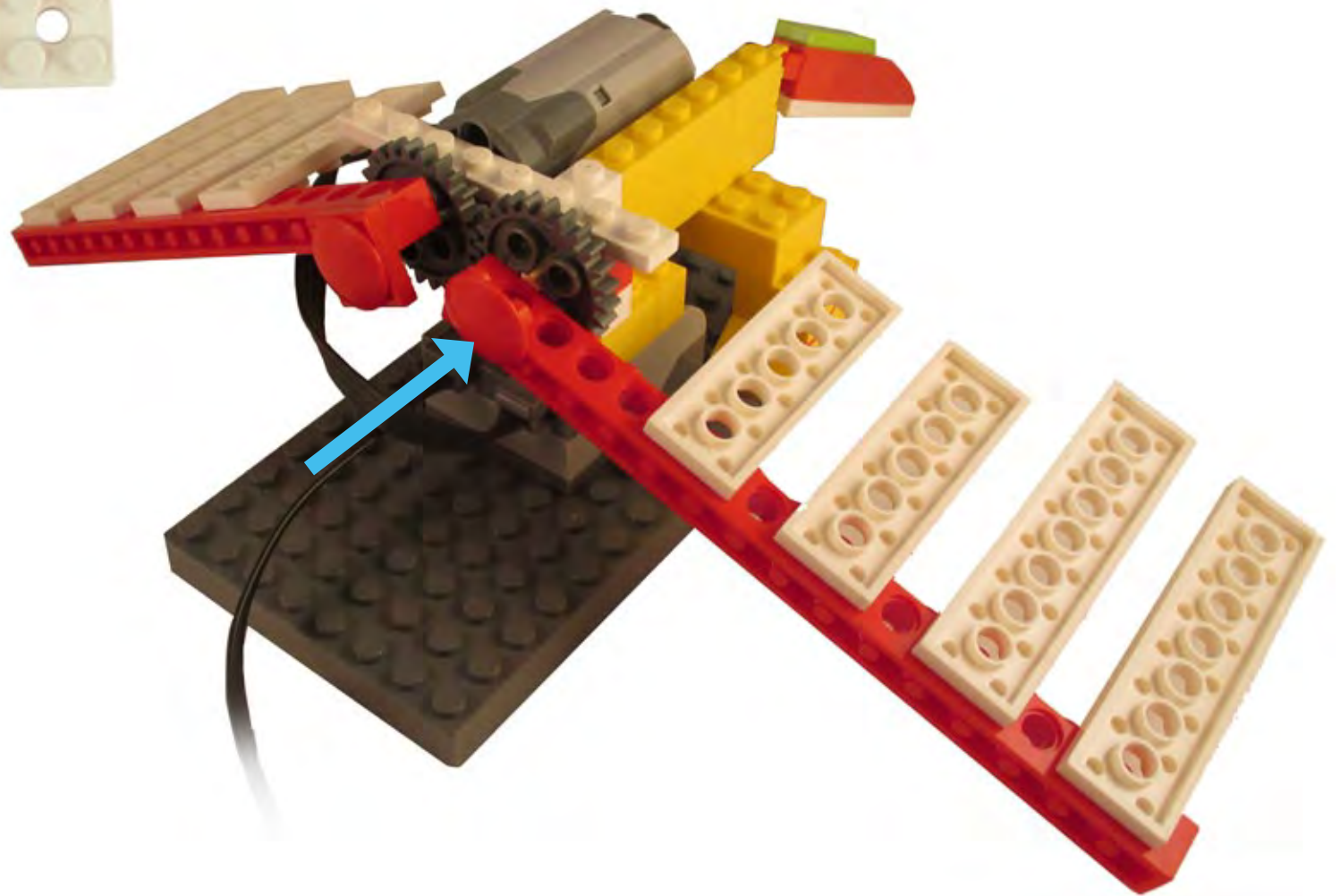
Use these holes to snap the gear to the Studs on the Red 1x16.



# Step 12

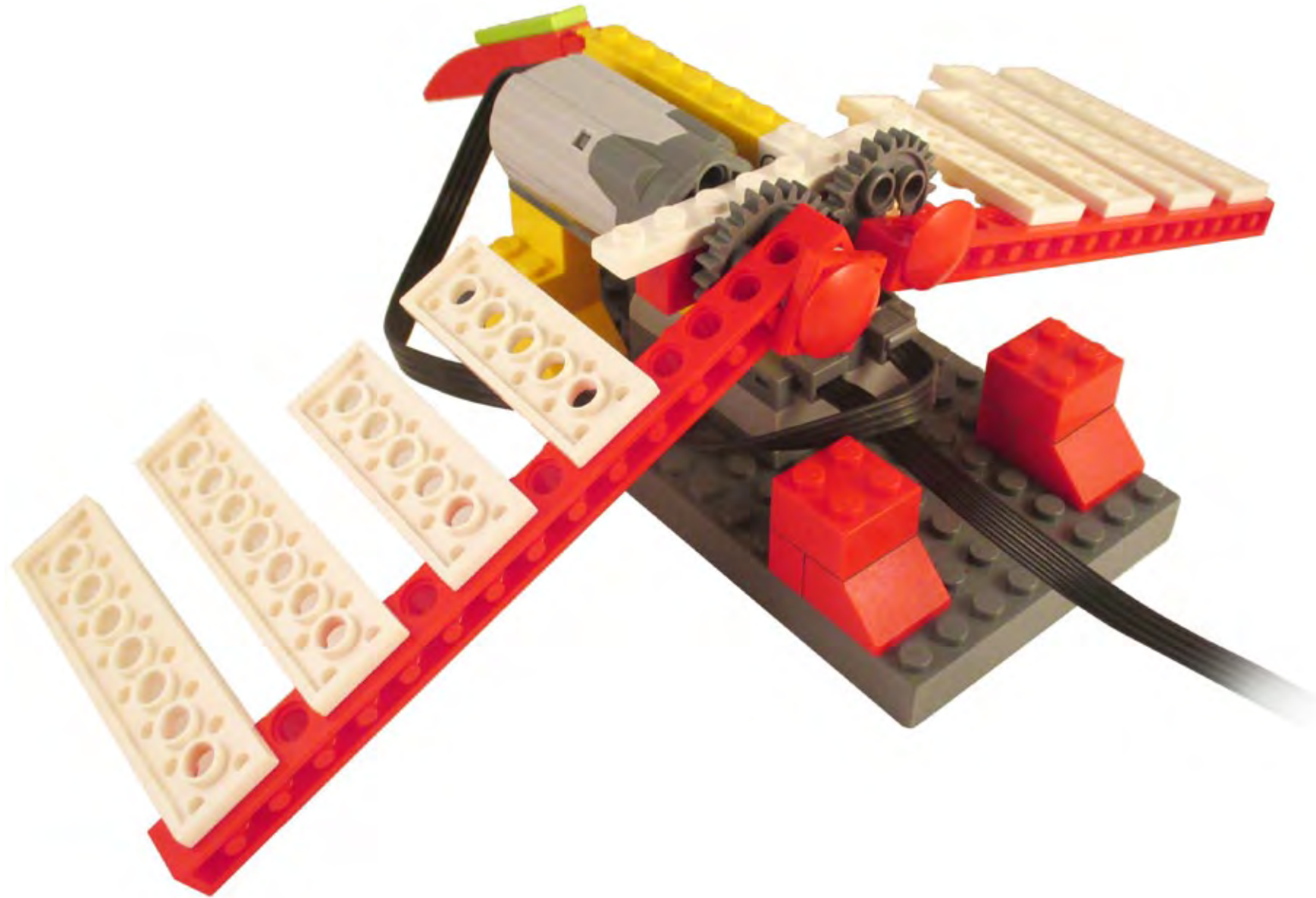


b. Make sure the teeth of the gears are touching!



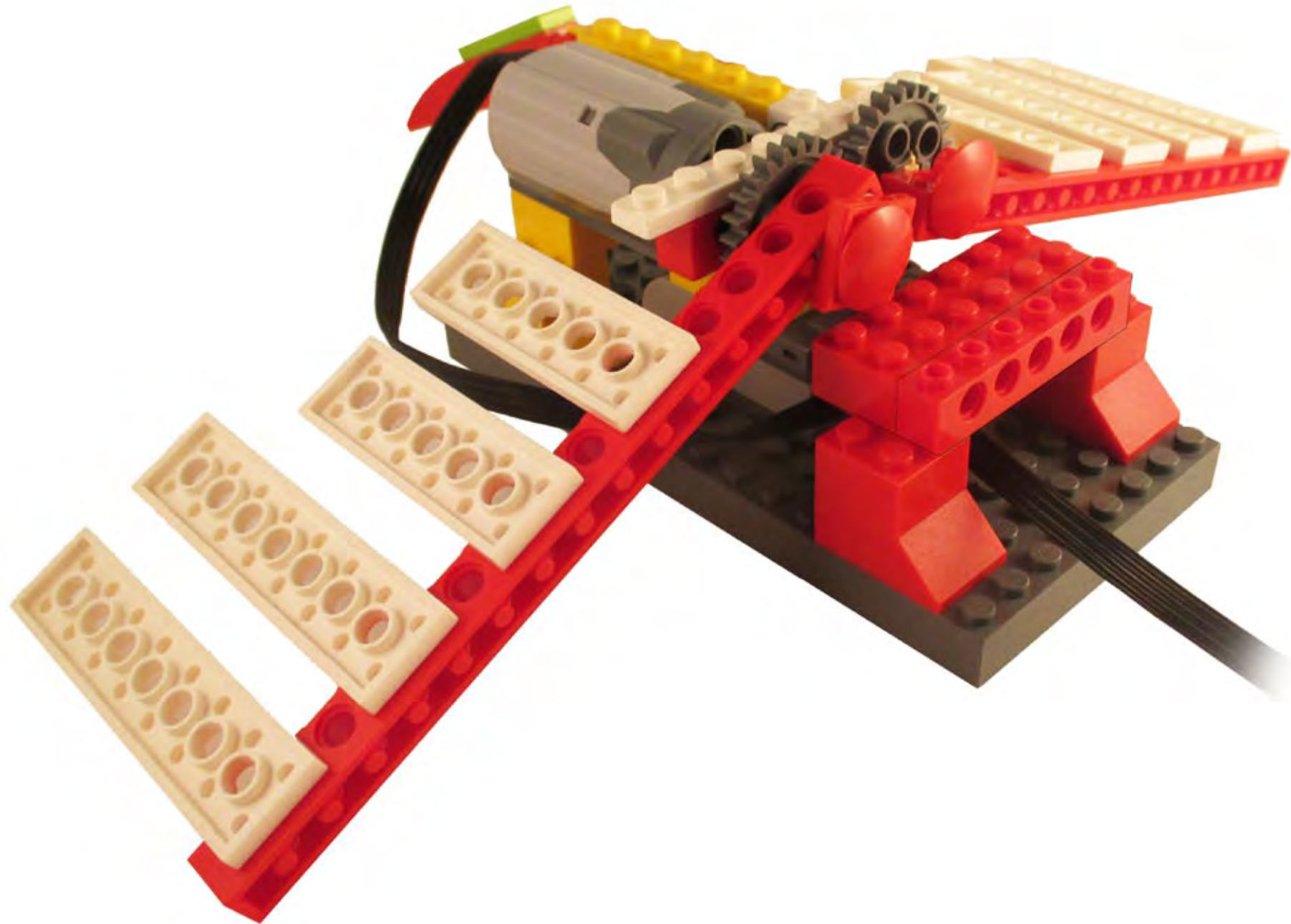


# Step 13



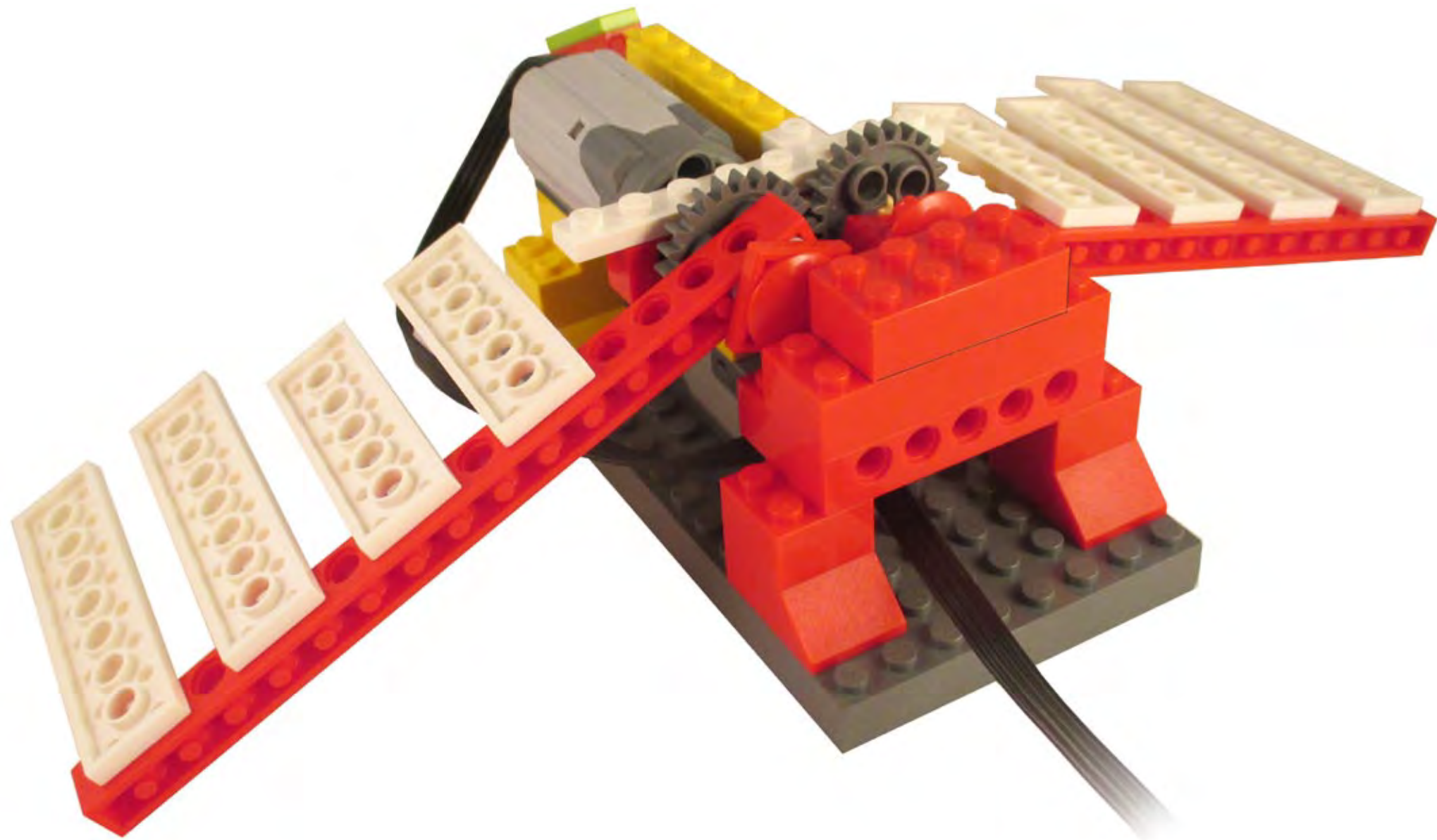


# Step 14





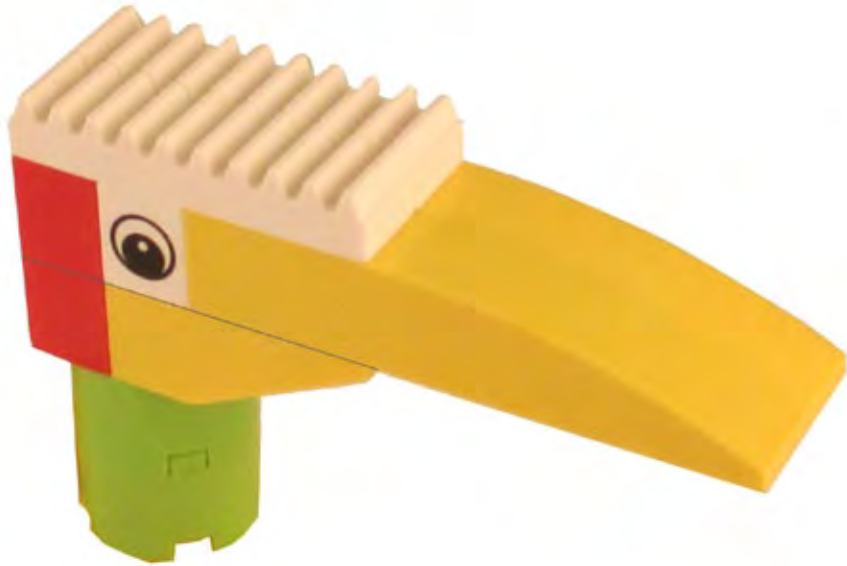
# Step 15



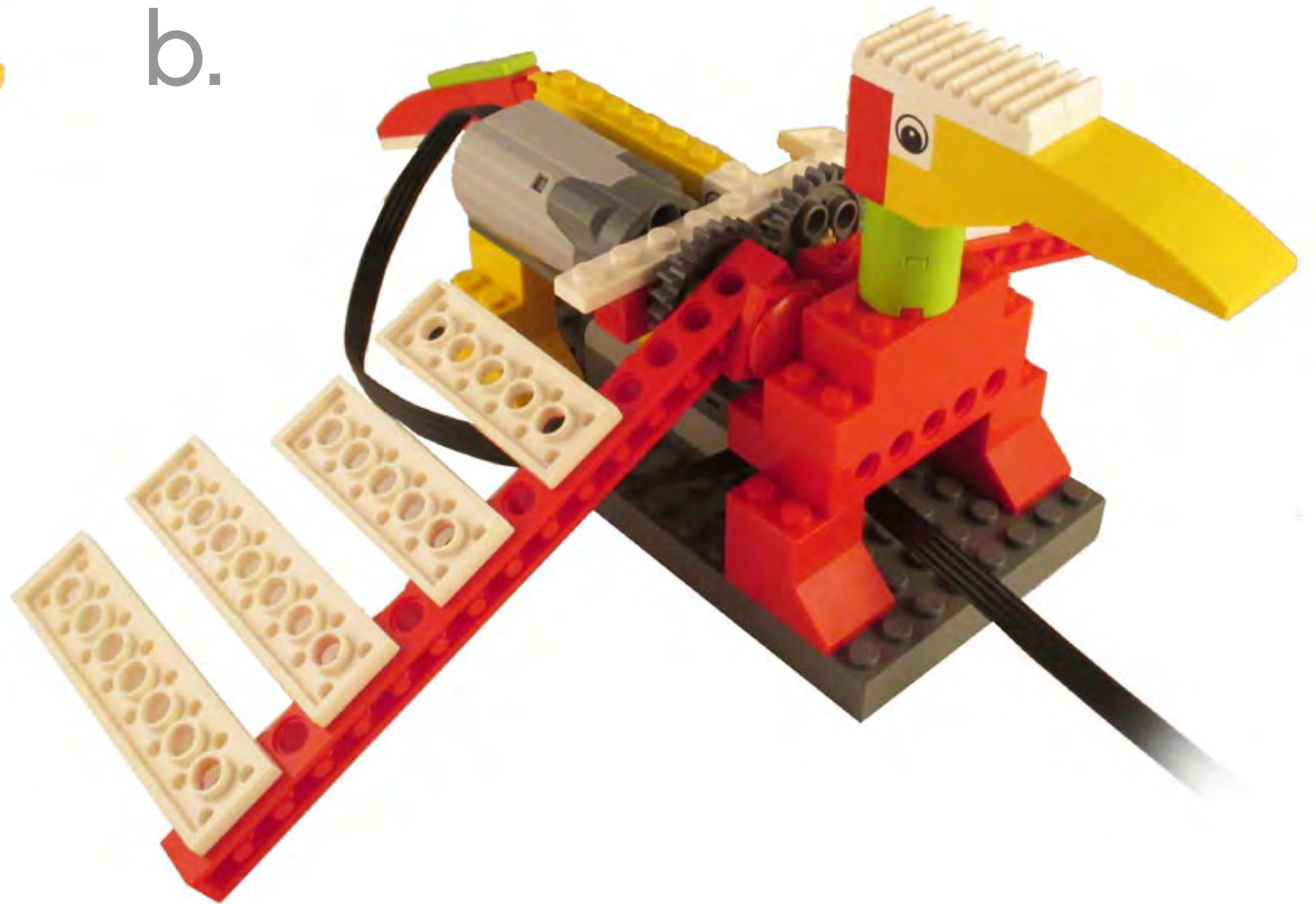


# Step 16

a.



b.





# Step 17

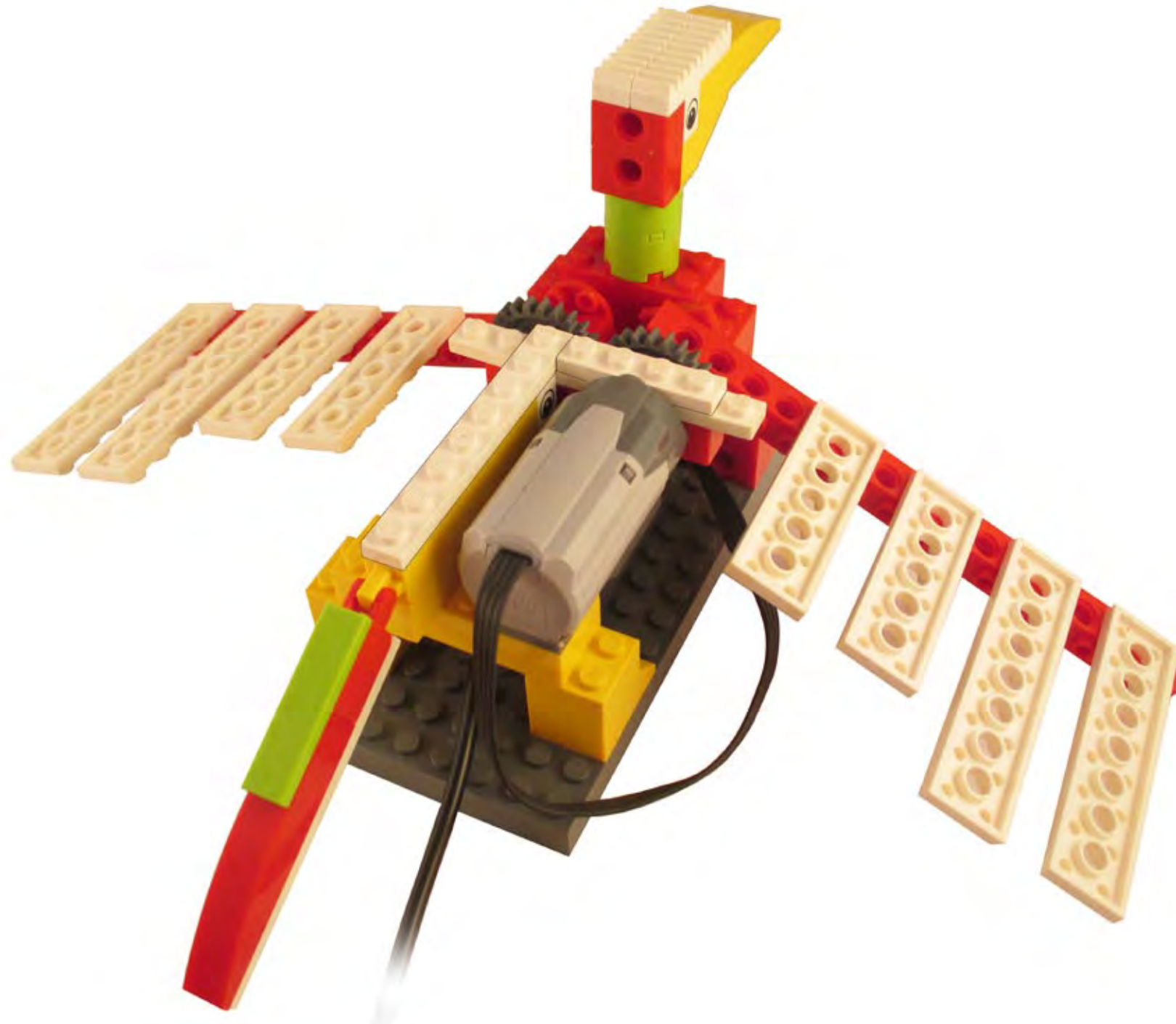
## You will Need:



White 1x4  
Plate



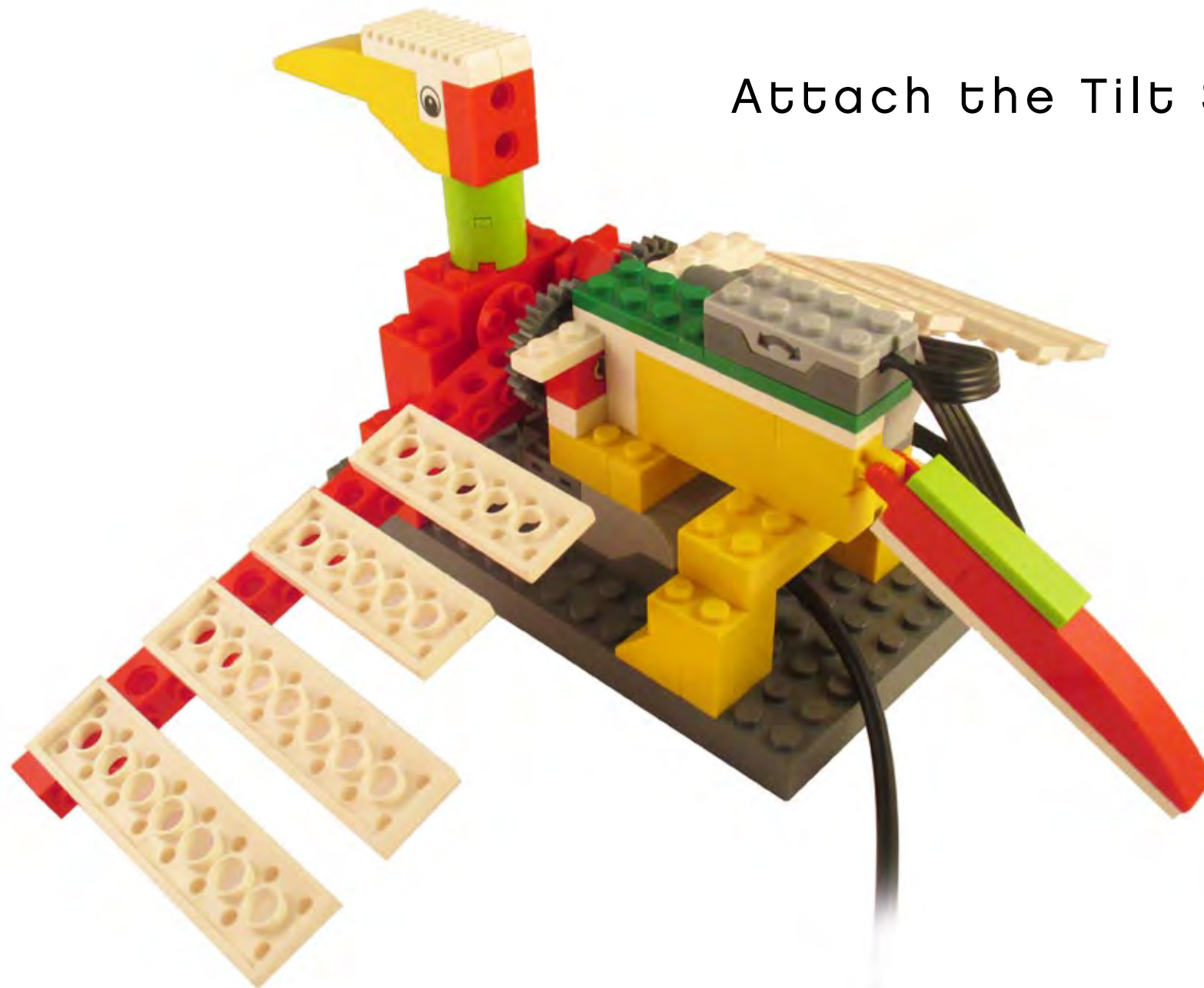
White 1x8  
Plate





# Step 18

Attach the Tilt Sensor!!





Your Hippogriff is Built!...  
Time to Program it!





# Programming

These programs turn the motor, rotate the gears, and Flap the Hippogriff's wings.



1. Minimize these instructions and open the Lego WEDO software.
2. Program your robot with the program above.
3. If you finish, open the instructions and continue to the extension activities!



# Extension 1

This program combines the previous programs and adds the Tilt Sensor to control the motor.

