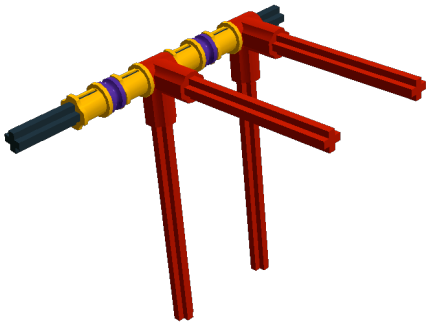
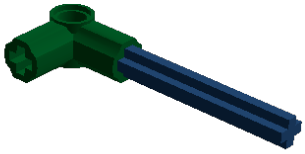
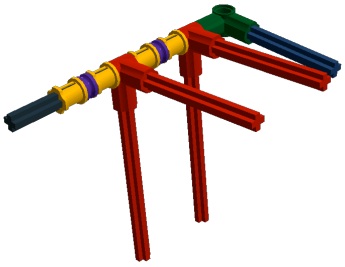
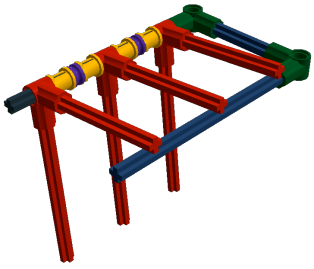
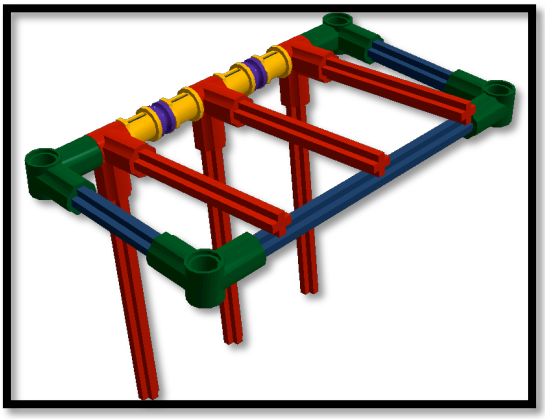
Lesson 1: One-Way Curtain

Build

Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch: https://youtu.be/2P1EREM1Yzc?t=47

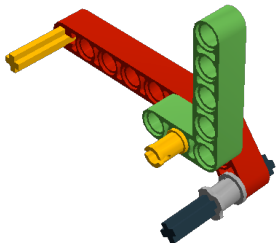
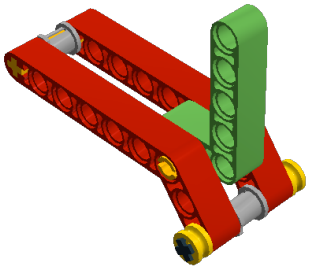
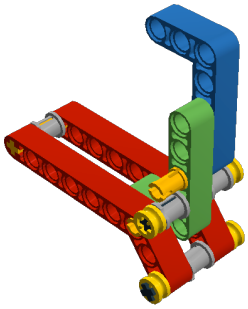
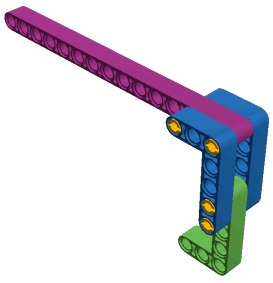
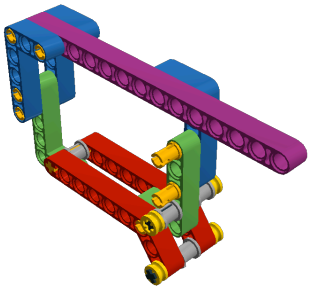
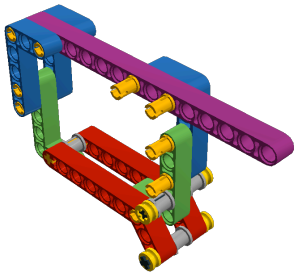
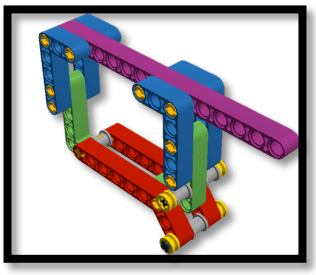
Apply

- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

Share and Learn

Lesson 2: Carabiner

Build

Add rubber bands on bushings

Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch: https://youtu.be/Mjp9holZ0dY?t=35

Apply

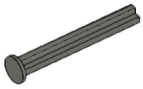
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

Share and Learn

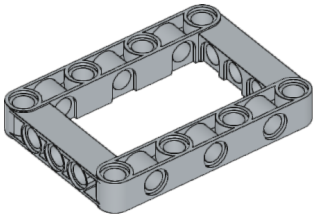
Lesson 3: Gear Box

Build

1x
32270, 11

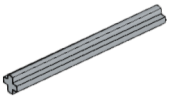


2x
87083, 85



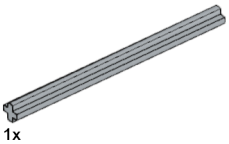
1x
64179, 86

1x
87408, 11



1x
32073, 86

3x
3713, 5

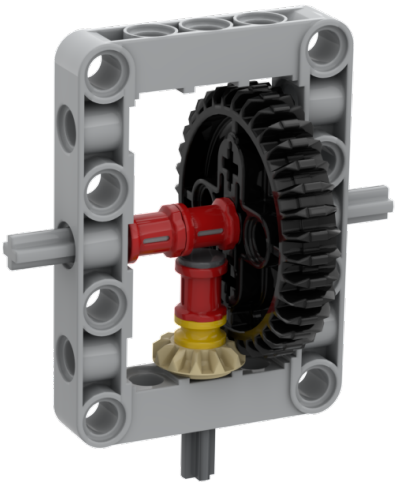


1x
44294, 86

2x
6589, 2

1x
4265c, 3

1x
32498, 11



Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch: https://youtu.be/2P1EREM1Yzc?t=23

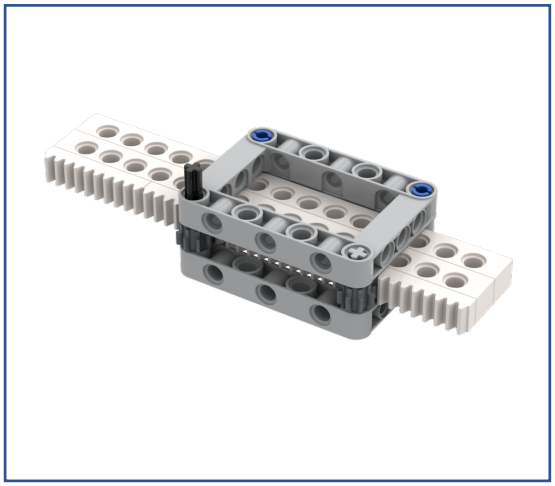
Apply

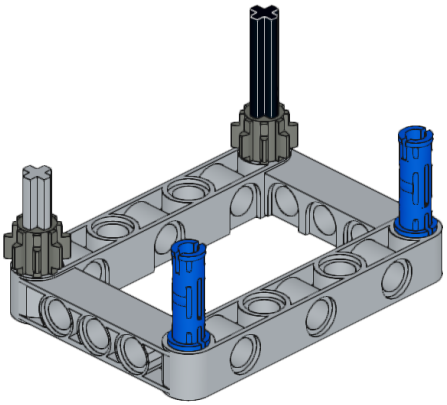
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

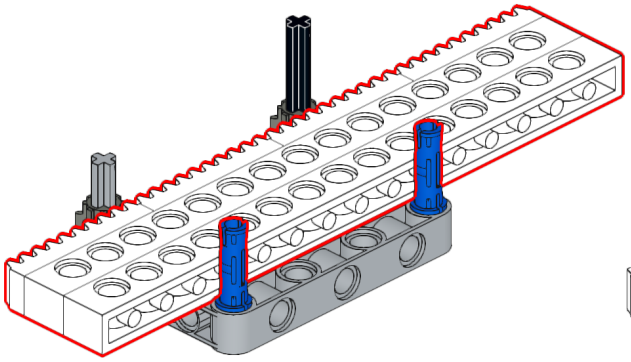
Share and Learn

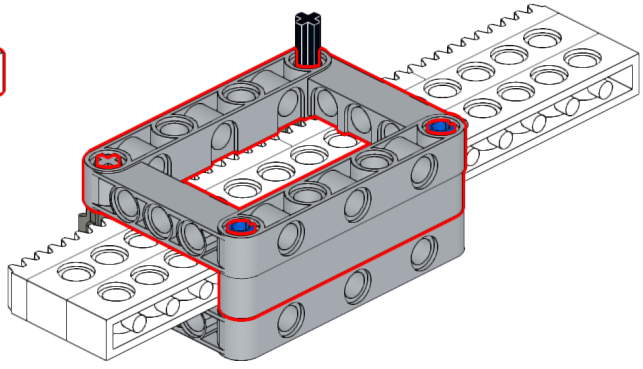
Lesson 4: Rack Gear

Build









Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch: https://youtu.be/Gl5L2B2jTEI?t=19

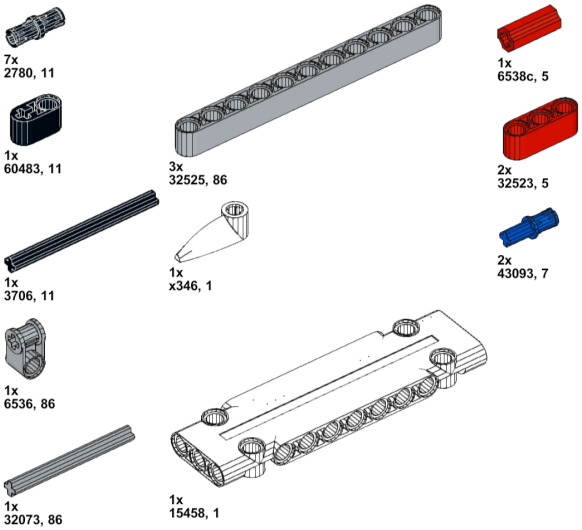
Apply

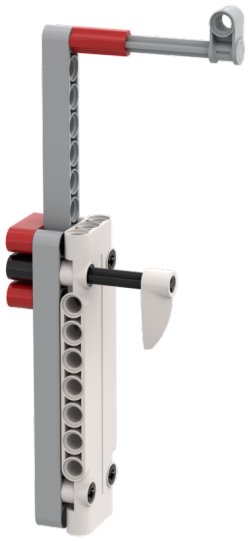
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

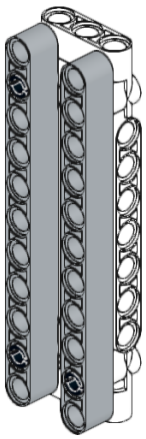
Share and Learn

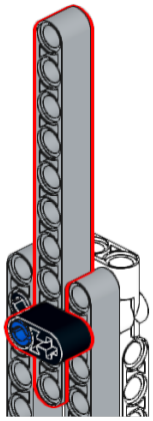
Lesson 5: Gravity

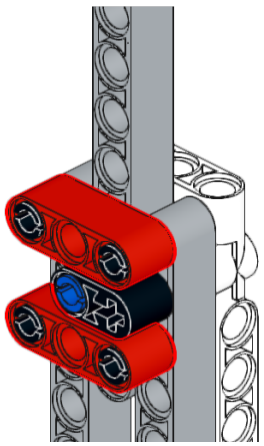
Build

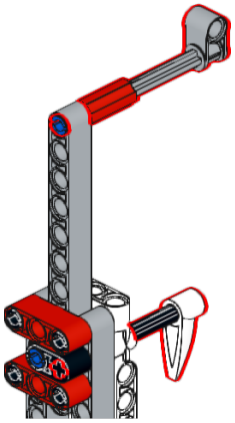












Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch: https://youtu.be/dJSeMeAGmXE?t=113

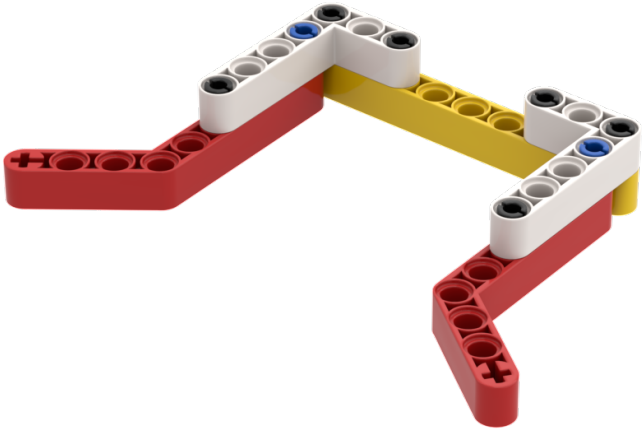
Apply

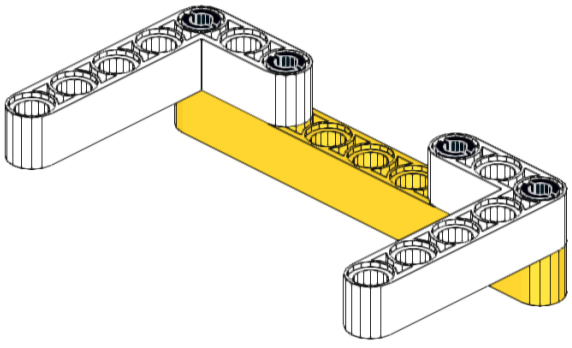
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

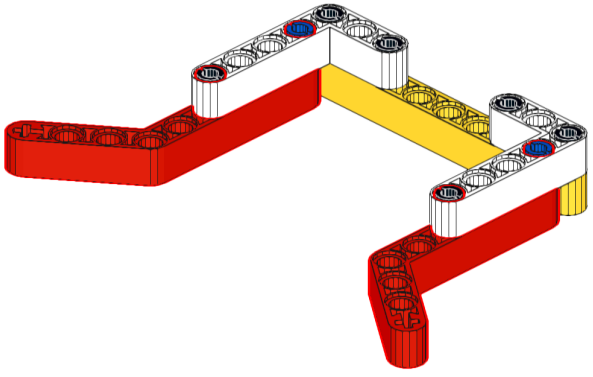
Share and Learn

Lesson 6: Aligners

Build







Discuss

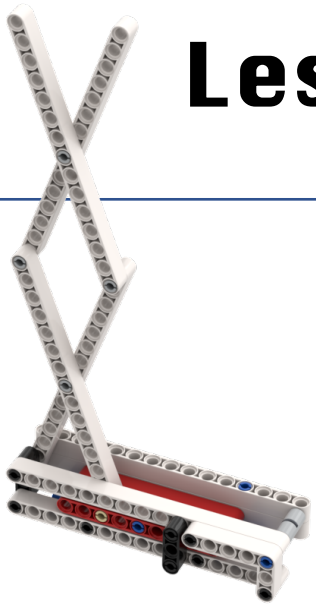
- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch:
  https://youtu.be/Mjp9holZ0dY?t=75

Apply

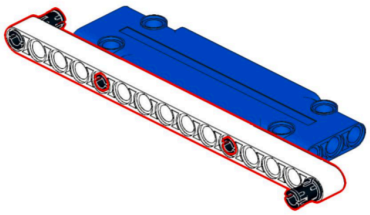
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

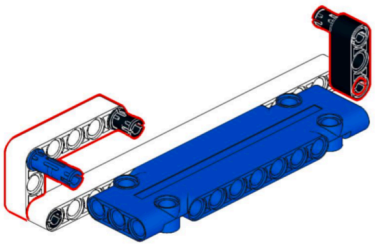
Share and Learn

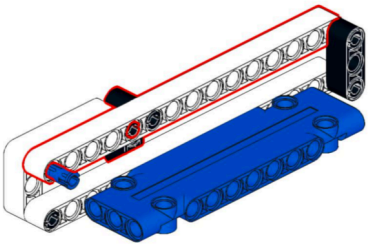
Lesson 7: Scissors

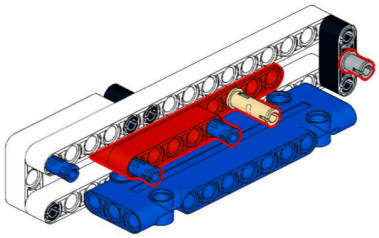


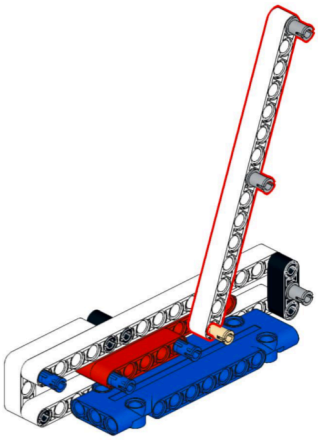
Build

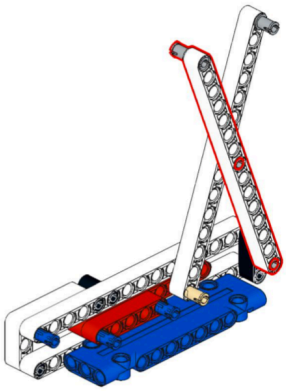


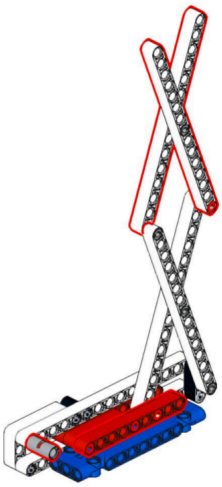


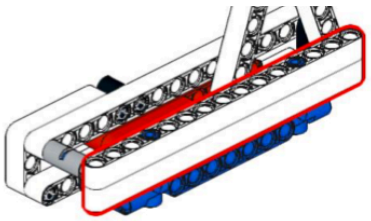












Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch:
  https://youtu.be/dJSeMeAGmXE?t=113

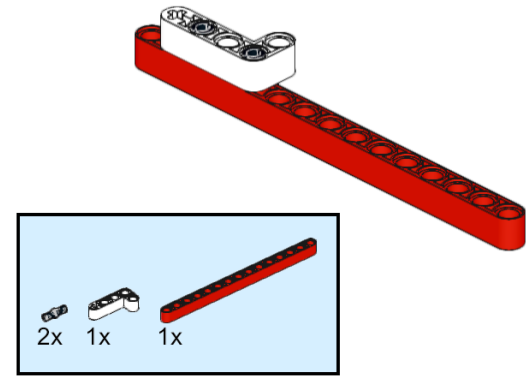
Apply

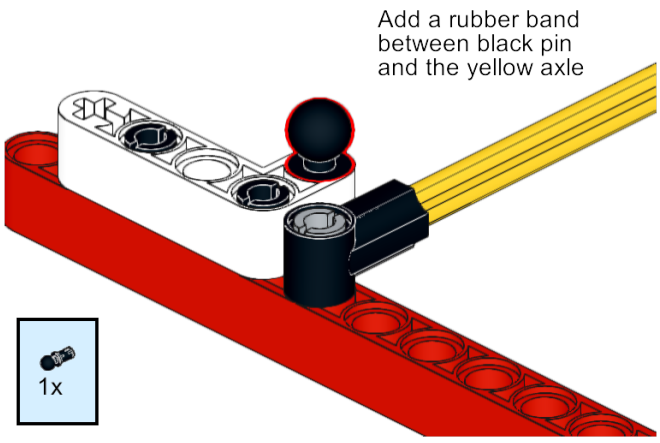
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

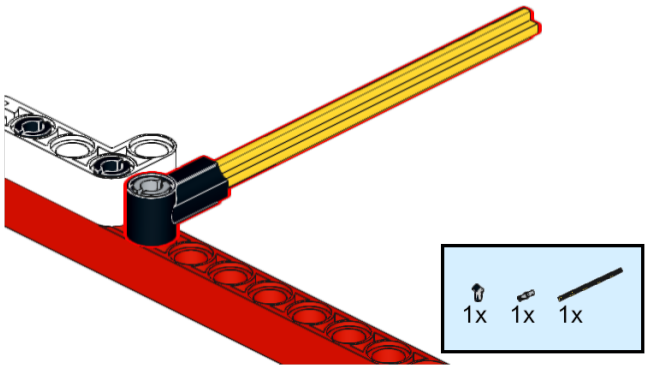
Share and Learn

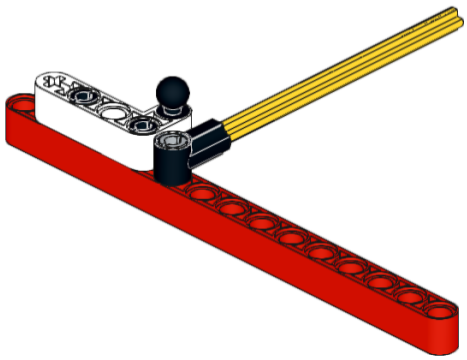
Lesson 8: Auto-Retracting Lever

Build









Discuss

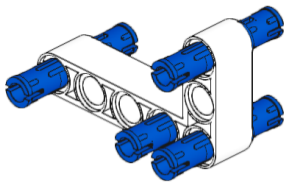
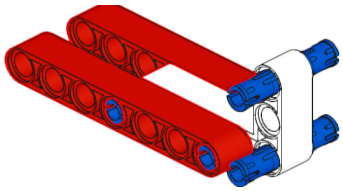
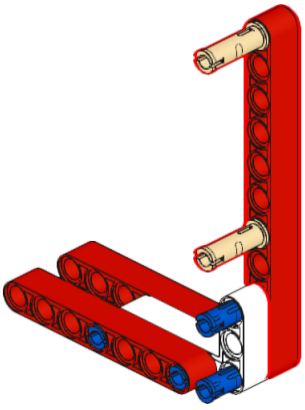
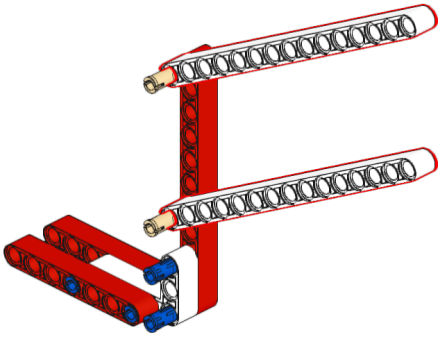
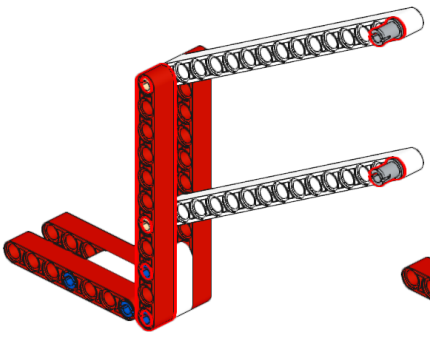
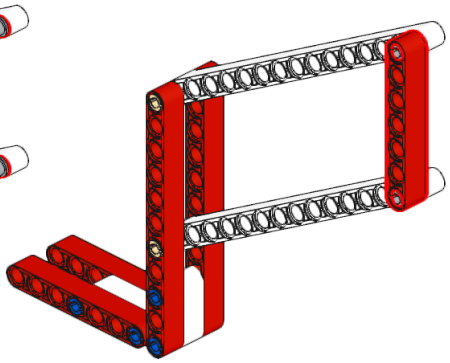
- How does this work? Can it work without the rubber band?
- How can it be useful?
- Where could we apply this technique?
- Watch:
- https://youtu.be/Mjp9holZ0dY?t=73

Apply

- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

Lesson 9: Parallel 4 Bar Linkage

Build

Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch:
- https://youtu.be/Gl5L2B2jTEI?t=115

Apply

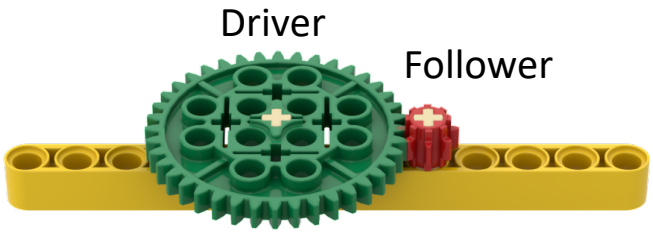
- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

Share and Learn

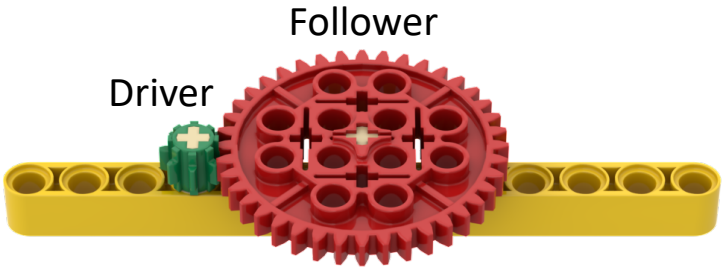
Lesson 10: Gearing Down

Build

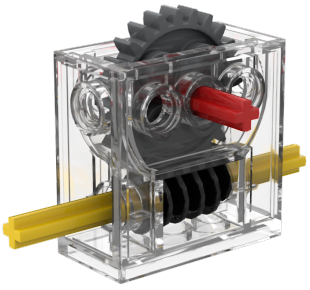
Gearing Up



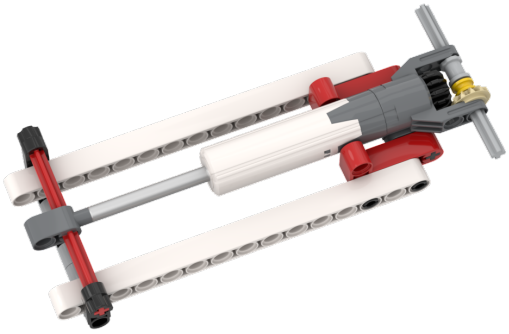
Gearing Down



Gearing Down: This is used to slow down the motion of the follower gear. This creates more torque but reduces the speed.



Gearing Down with a gear box and worm gear - 6588



Gearing Down with a Linear Actuator - 61927c01

Discuss

- How does this work?
- How can it be useful?
- Where could we apply this technique?
- Watch:
- https://youtu.be/dJSeMeAGmXE?t=78

Apply

- Now build a full mechanism that uses this concept
- Modify the concept to fit your needs

Share and Learn