

Protect Our Produce

Reducing Impact of Forces

Design a tool that harvests produce from a tree, without causing damage.

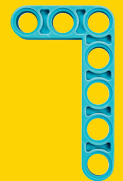


Think like a scientist:

Which forces could damage the produce during harvest?

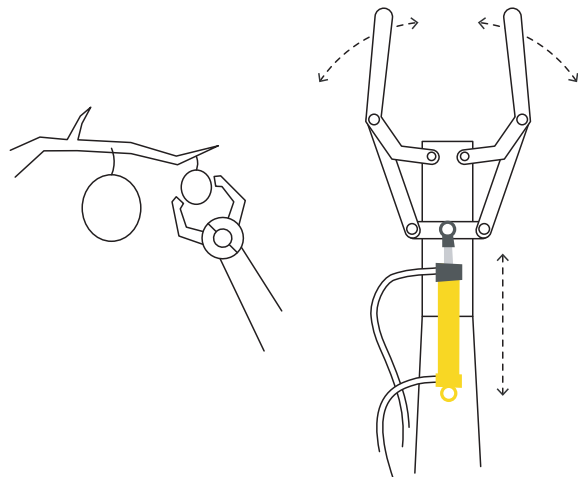
Think like an engineer:

What structures would enable produce to be handled gently?

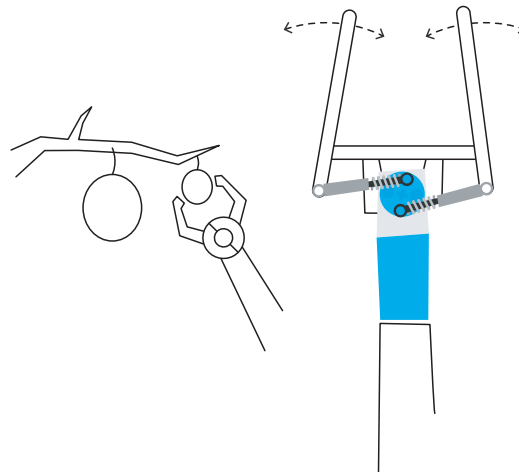


Example Ideas

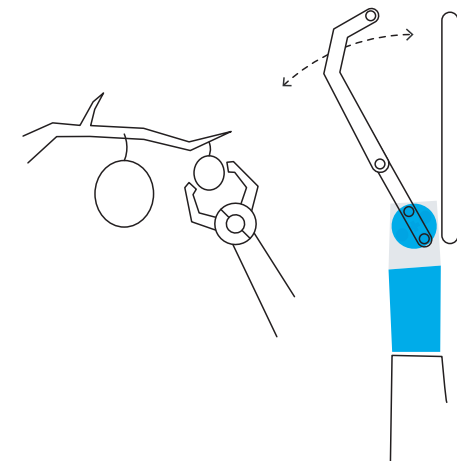
How will you build a grabbing structure to pick and hold the produce with reduced force?



Using pneumatics.



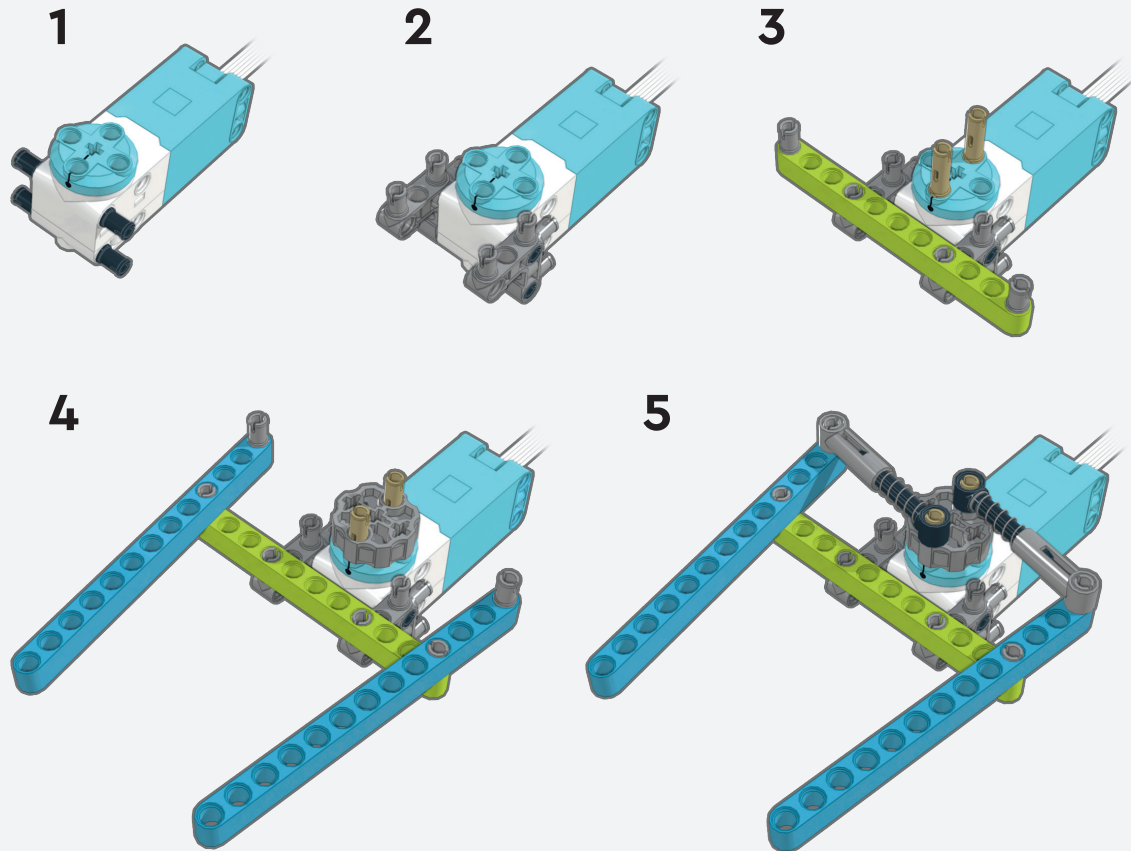
Using springs.



Using flexible elements.

Build it!

How will you attach the grabbing mechanism to the motor?



Code it!

Sample program for a device using a motor:

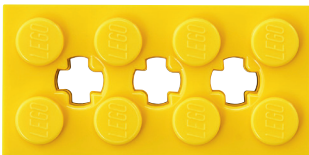


Describe it!

What happens when each button is pressed?

Modify it!

What programming changes could improve your device's handling of different shapes and sizes of produce?



Challenge yourself!

Collect data to evaluate the success of each iteration of your design.