

# Protect Our Produce

## Reducing Impact of Forces

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

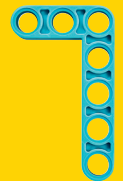


### Think like a scientist:

Which forces could damage the produce during harvest?

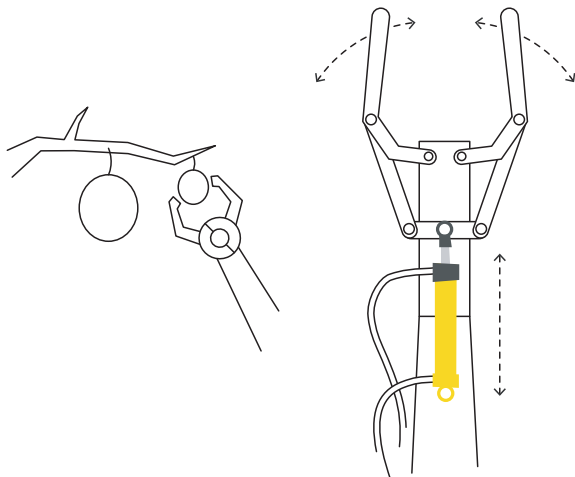
### Think like an engineer:

What structures would enable produce to be handled gently?

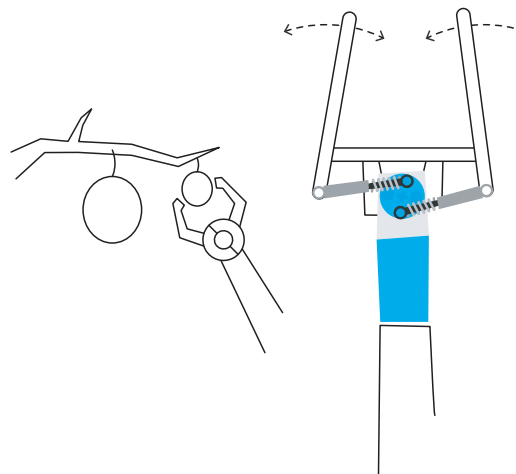


## Example Ideas

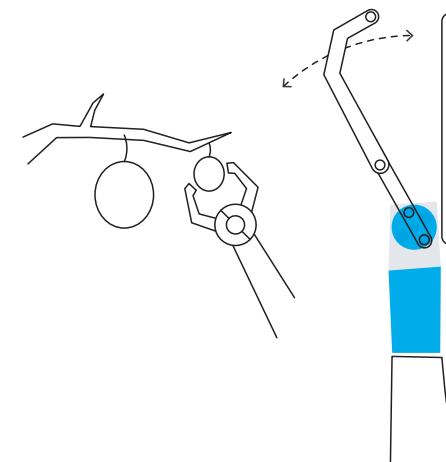
How will you build a grabbing structure to pick and hold the produce with reduced force?



Using pneumatics.



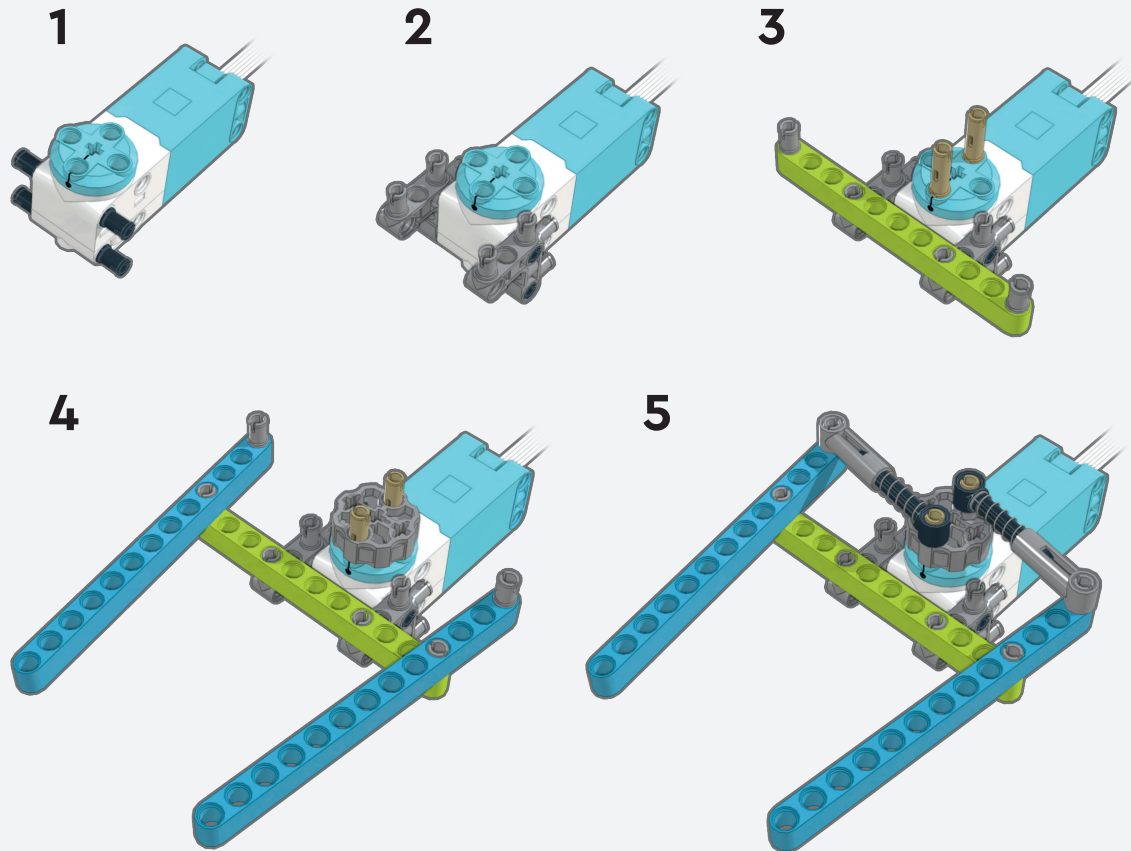
Using springs.



Using flexible elements.

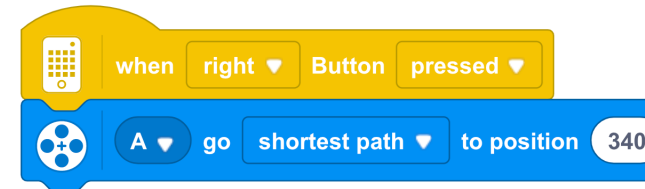
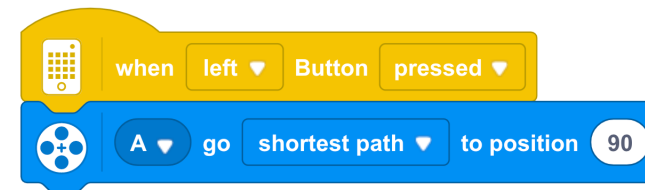
## Build it!

How will you attach the grabbing mechanism to the motor?



## Code it!

Sample program for a device using a motor:

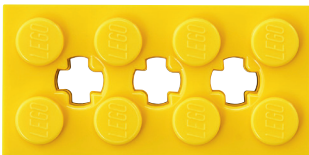


### Describe it!

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.