

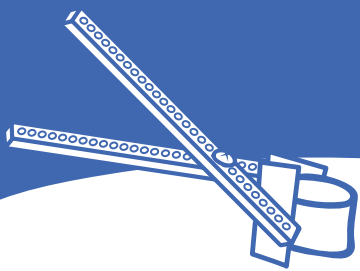
Grab Lab™

Kids Engineering Challenge



Digging for worms, like a birds beak

All-in-One



Grab Lab™ Kids Engineering Challenge



TeacherGeek Components

For One
Grabber

These are the TeacherGeek components for the example Grabber and extras to turn it into your own unique design.



4 - Connector Strips



2 - Dowels
2"



2 - Dowels
6"



2 - Blocks



6 - Screws
25mm (1")

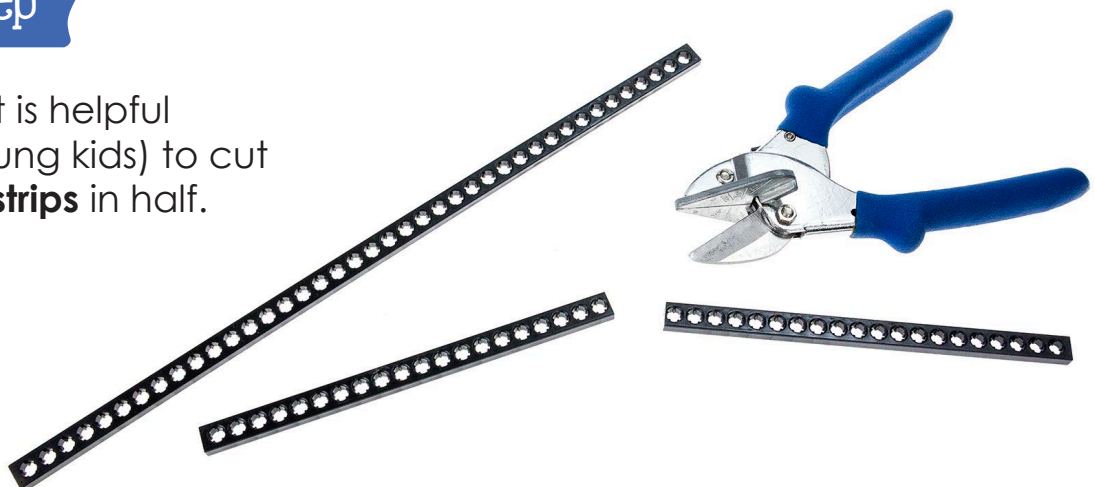


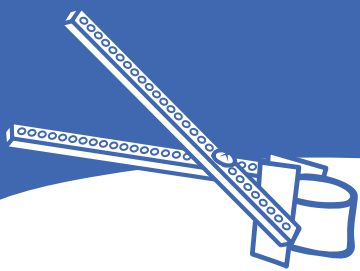
4 - Nuts

Components are available in the TeacherGeek Grab Lab Activity, TeacherGeek Maker Cart, or at teachergeek.com

Pre-Activity Prep

Before you start, it is helpful (especially for young kids) to cut some **connector strips** in half.





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Kids Engineering Challenge



TeacherGeek Tools You'll Need

These are the TeacherGeek components for the example Grabber and extras to turn it into your own unique design.



Multi-Cutters
SKU 1823-81



Screwdriver
SKU 1823-90



Hammer
SKU 1824-41

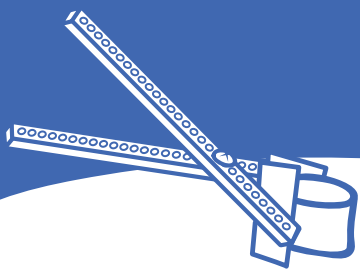
Tools available at teachergeek.com

Materials You Supply

Collect and add recycling materials to your design to help grab.

It is not recommended to use metal, glass or anything with sharp edges.





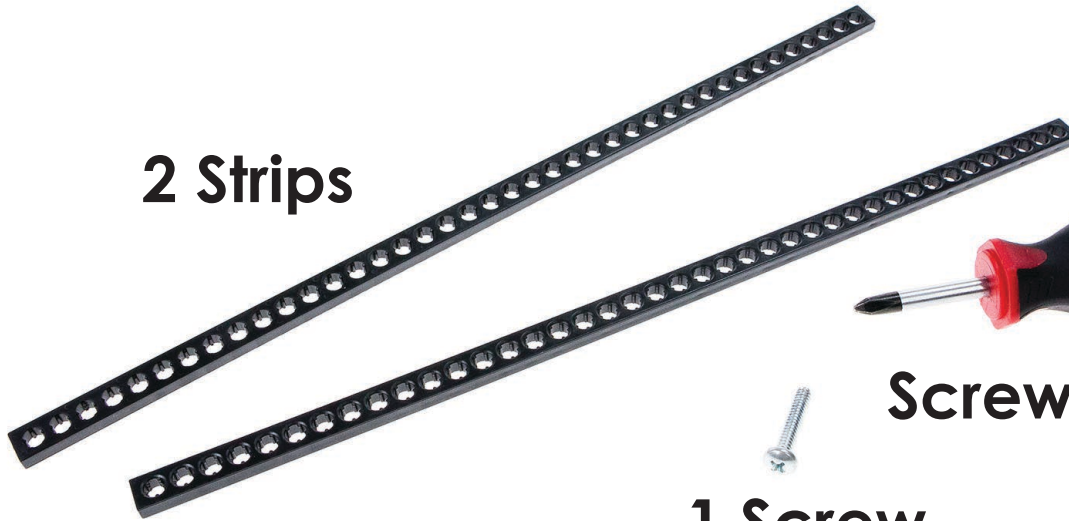
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1 Make a simple grabber.

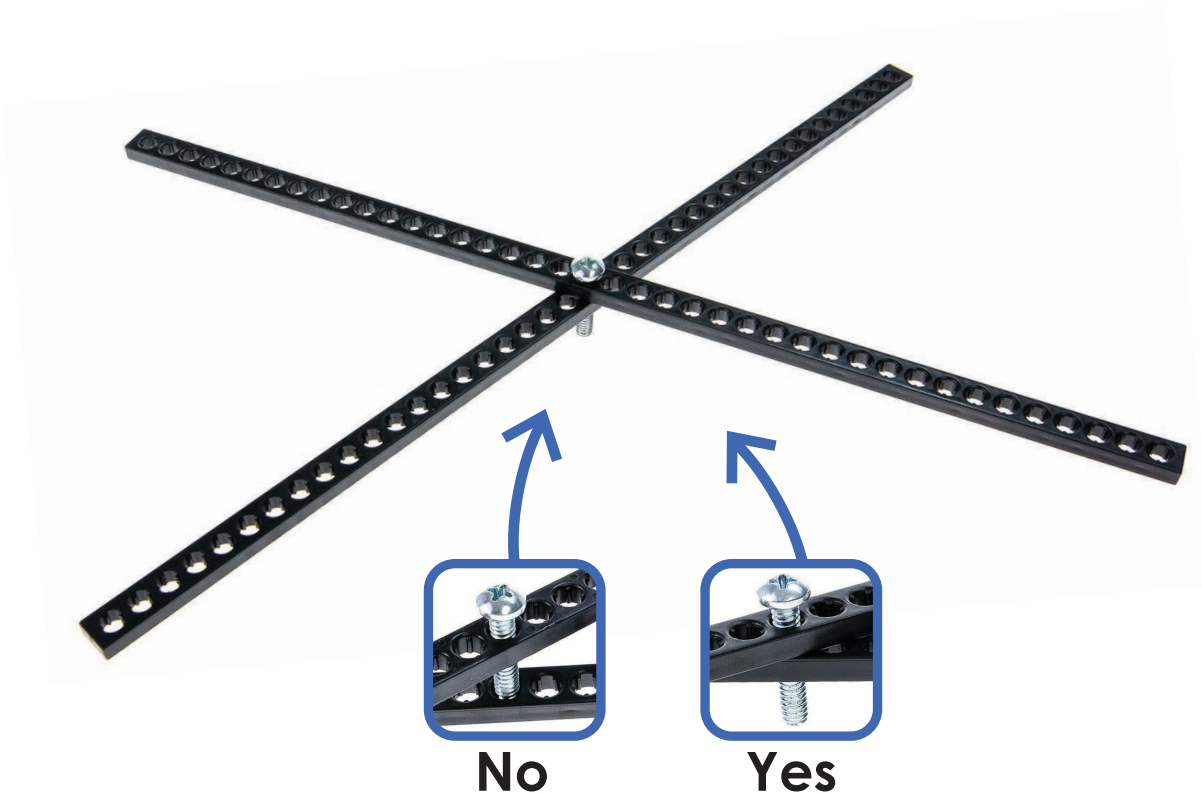
2 Strips



Screwdriver

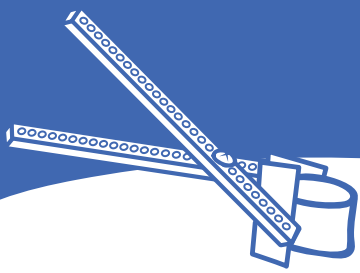


1 Screw



No

Yes

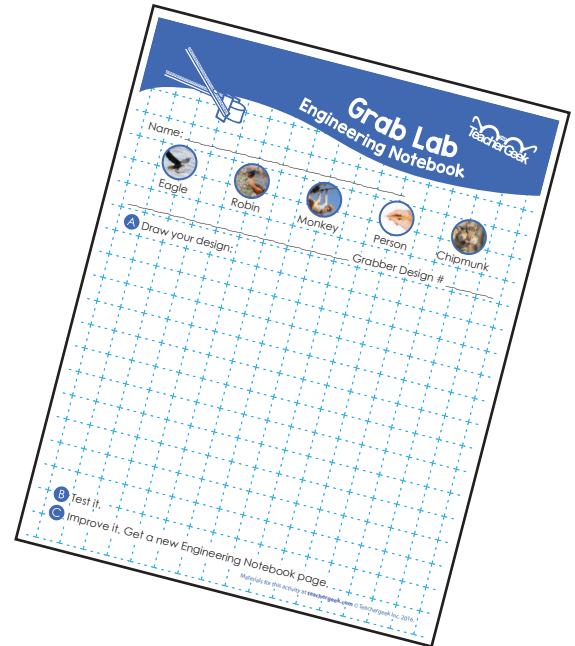


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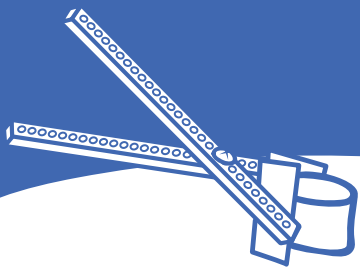
2 Design a better grabber



3 Make it.

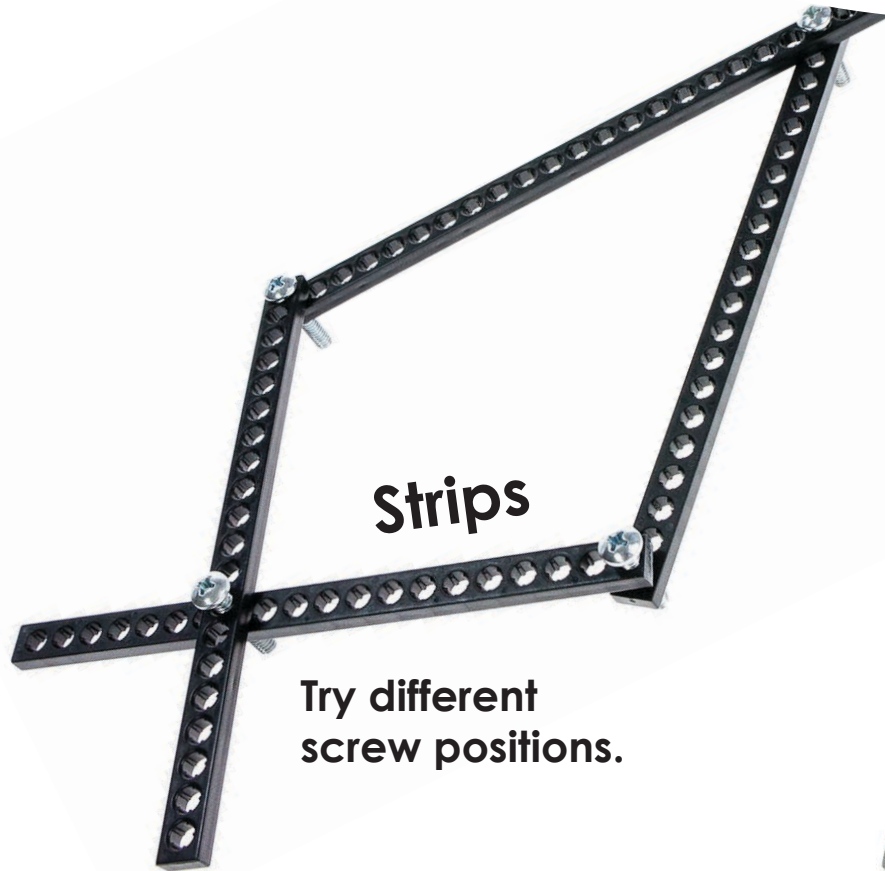
Add things to help it grab.





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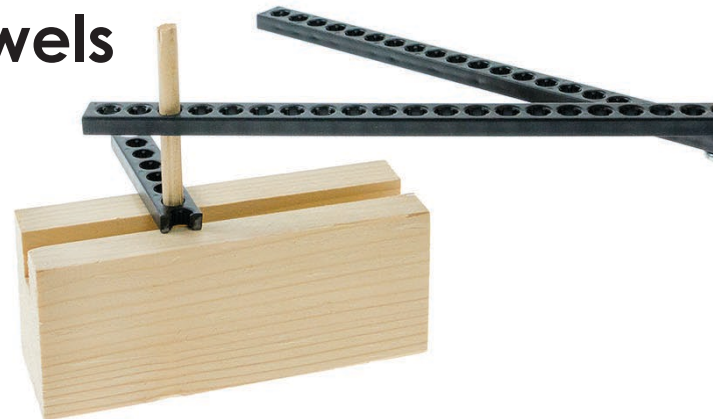


Strips

Try different
screw positions.



Dowels



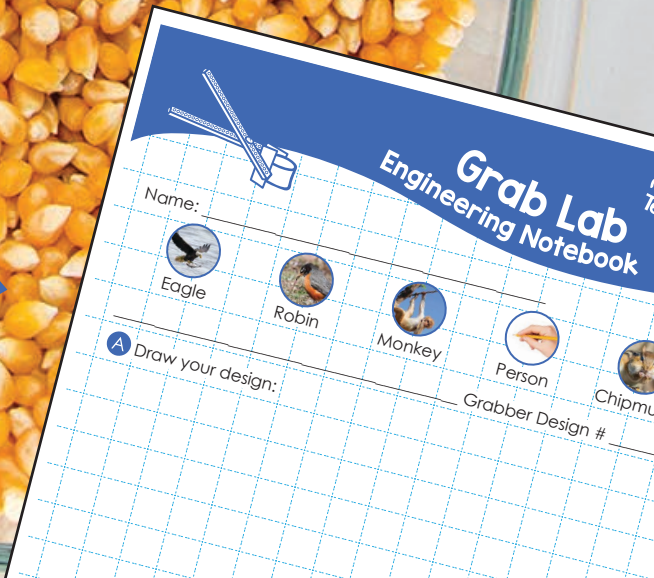
Other Parts

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Kids Engineering Challenge

4 Test it.

**5 Improve it
or, redesign it.**



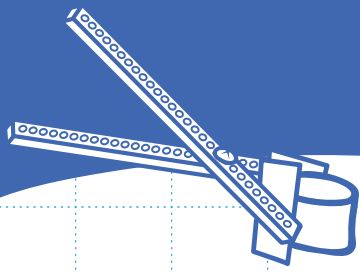
Grab Lab
Engineering Notebook

Name: _____

Eagle Robin Monkey Person Chipmunk

A Draw your design: _____

Grabber Design # _____



Grab LabTM Engineering Notebook



Name: _____



Eagle



Robin



Monkey



Person



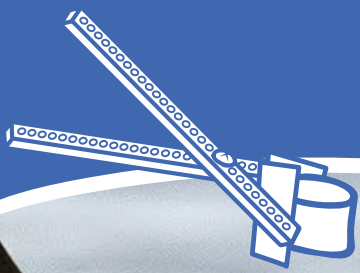
Chipmunk

_____ Grabber Design # _____

A Draw your design:

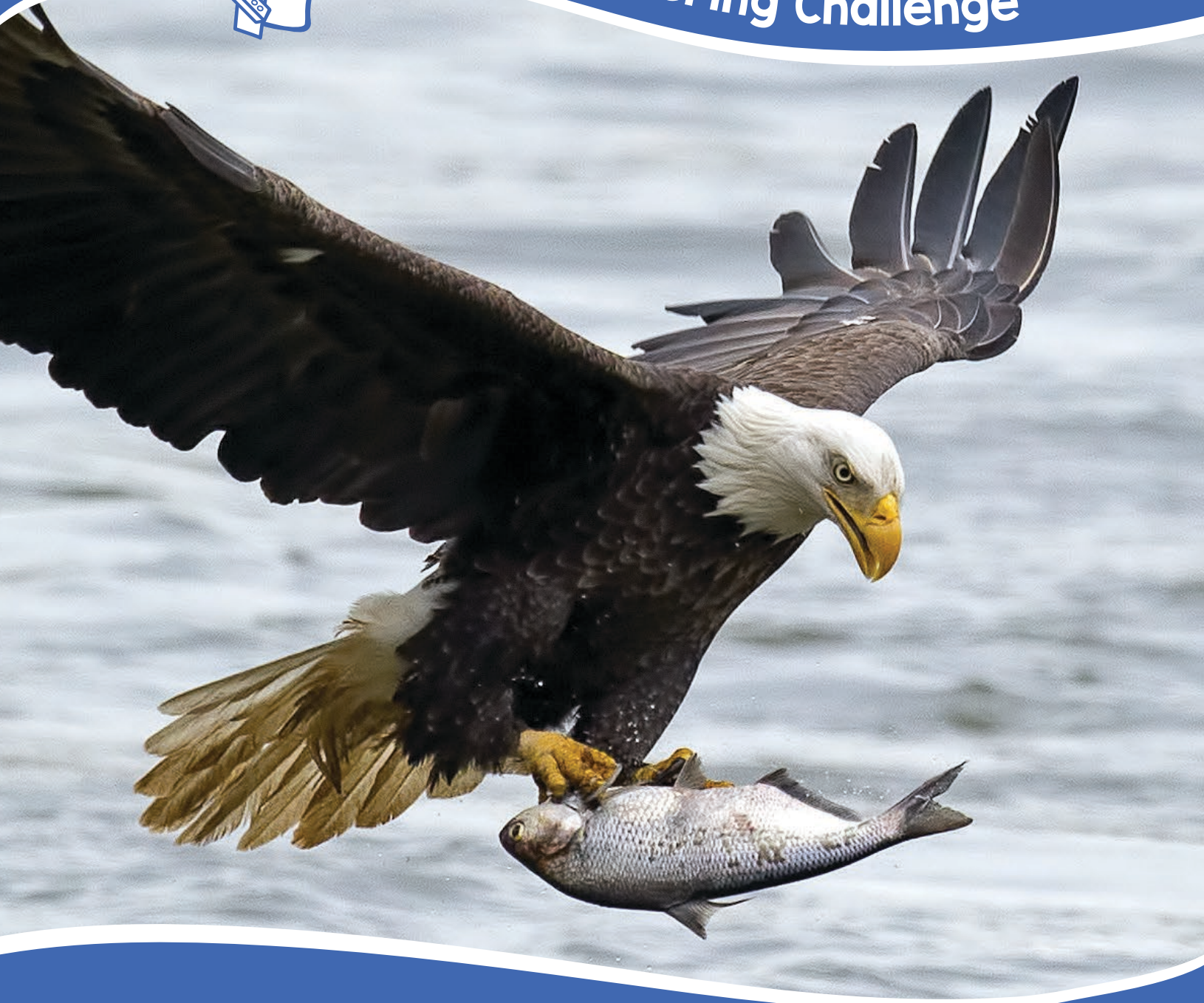
B Test it.

C Improve it. Get a new Engineering Notebook page.

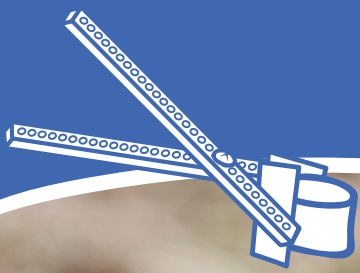


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Kids Engineering Challenge



Design a grabber to...
catch a slippery fish
like an eagle.



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Kids Engineering Challenge



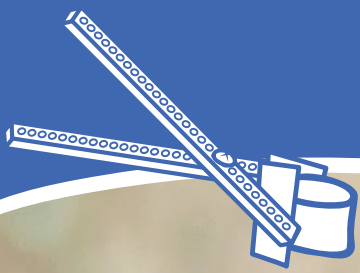
Design a grabber to...
find a worm
like a robin's beak.

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Design a grabber to...
hold a tree branch
like a monkey.

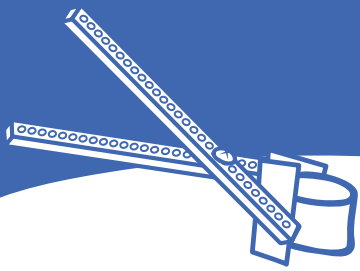


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Design a grabber to...
pickup as many nuts
as a chipmunk's mouth.



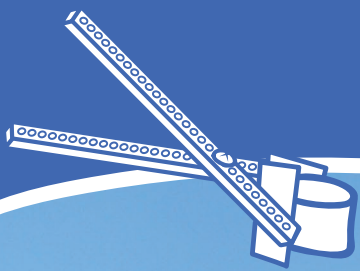
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Kids Engineering Challenge



Design a grabber to...
hold a pencil like a person.
Try writing your name with it.

Setup: try to pick up a pencil & write your name
Materials for this activity at [teachergeek.com](https://www.teachergeek.com) © TeacherGeek Inc. 2016.



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Kids Engineering Challenge



Design a grabber to... lift like an ant.

This could be difficult. Ants can lift 10 to 50 times their weight.

Setup: Put this on a desk, table, or something heavy. This is not a real challenge (just for fun).
Materials for this activity at teachergeek.com © TeacherGeek Inc. 2016.