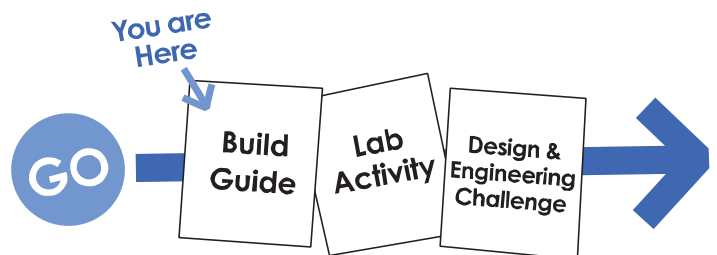


SUPER WIGGLE-BOT BUILD GUIDE



This is a real engineering project (not a toy).
What does that mean? You get to design and build your own unique Super Wiggle-Bot, rather than just following directions.



Download classroom documents at teachergeek.com/learn

For use with TeacherGeek [Super Wiggle-Bot Activity Pack](#),
or [Maker Cart](#) available at teachergeek.com

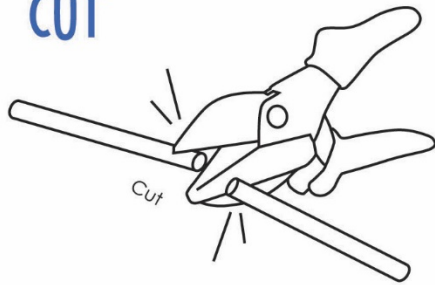
SUPER WIGGLE-BOT BUILD GUIDE



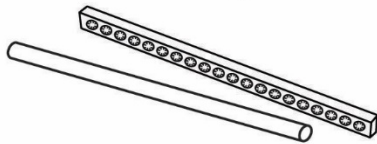
Designing and building your own unique Wiggle-Bot will take some out of the box thinking. Use the TeacherGeek Quick Start guide below to help you make the most out of your components.

Don't worry, we will help you start your Wiggle-Bot on the next pages.

CUT



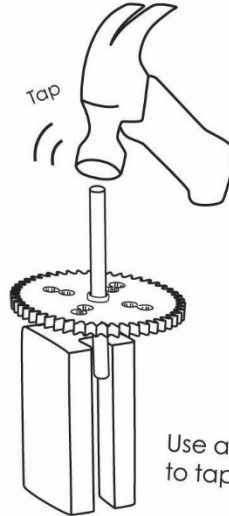
Multi-Cutters cut wood & plastic (like **dowels** and **connector strips**). They do not cut metal.



PUSH, WIGGLE, TAP



Push, wiggle or tap **dowels** into holes.



Use a **hammer** and **slider block** to tap **dowels** farther through holes.

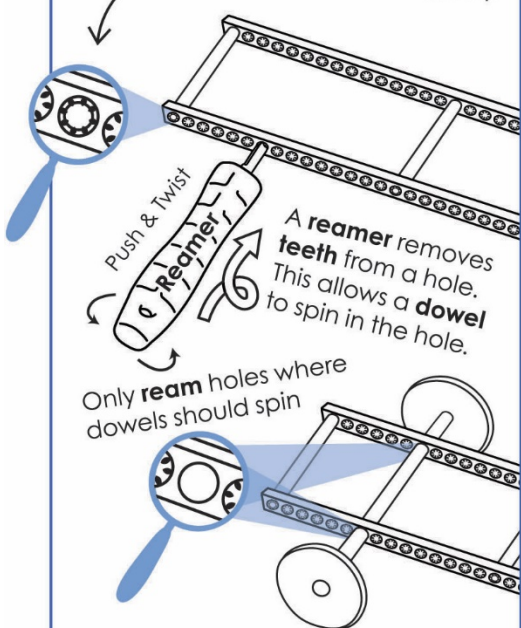
QUICK TIP!



Use a **crayon** or **soap** on the end of a **dowel** to make building easier.

REAM

Most parts have holes with **teeth**. The **teeth** hold **dowels** (keep dowels from falling out).



A **reamer** removes **teeth** from a hole. This allows a **dowel** to spin in the hole.

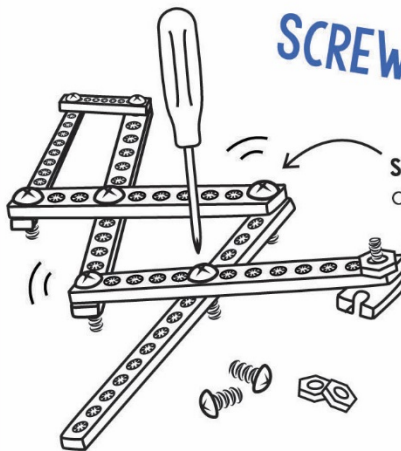
Only **ream** holes where dowels should spin

Never **ream** pulleys, gears, wheels, or any hole a **dowel** stays stuck into.

SCREWS & NUTS



Do not **ream** holes you will put **screws** into.



Screws (without nuts) can connect parts, and allow them to rotate.

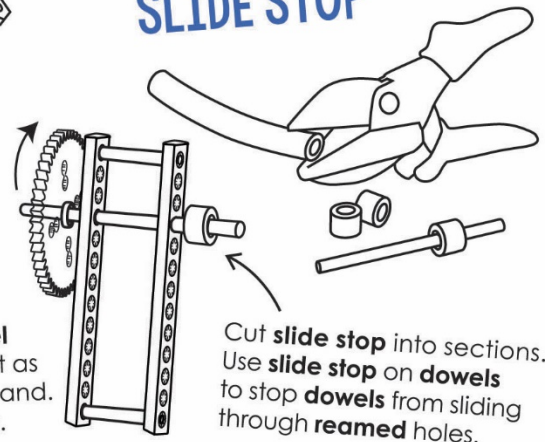
Screws (with a nut) can connect parts, and keep them from rotating.

STOP CLIP



Press a **stop clip** onto a **dowel** to keep it from sliding or use it as a hook for a string / rubber band. It takes little force to get it on.

SLIDE STOP



Cut **slide stop** into sections. Use **slide stop** on **dowels** to stop **dowels** from sliding through **reamed** holes.

SUPER WIGGLE-BOT BUILD GUIDE



TEACHERGEEK COMPONENTS

Below is the list of "ingredients" you'll need to build a Super Wiggle-Bot. It includes some extra components to allow you to make it into your own unique design.



2 - Connector Strips



8 - Dowels

4 - 30cm (12"), 2 - 15cm (6")
1 - 7.5cm (3"), 1 - 5cm (2")



1 - Hole Plate



2 - 25mm Screws
#10 25mm (1")



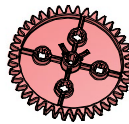
2 - Nuts
#10



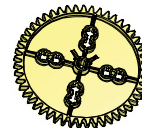
1 - 10 Tooth Gear



1 - 20 Tooth Gear



1 - 40 Tooth Gear



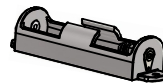
1 - 50 Tooth Gear



3 - Blocks



4 - Steel Wire
30cm (12")



1 - AA Single Battery Holder



1 - Motor with Holder & Leads

Please Note:
Colors of components will vary

TEACHERGEEK TOOLS

This isn't a kit. You're going to really build (cut, hammer, bend) your Super Wiggle-Bot. Here are tools you'll need to get started:



Multi-Cutter
(optional)
[SKU 1823-81](#)



Pliers
(optional)
[SKU 1823-86](#)



Hammer
(optional)
[SKU 1824-41](#)



Tapping Block
(optional)
[SKU 1823-91](#)



Or get the complete
TeacherGeek / Maker Tool Set
[Single SKU 1823-24](#)
[Class Set SKU 1823-85](#)

MATERIALS YOU SUPPLY



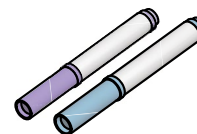
Tape



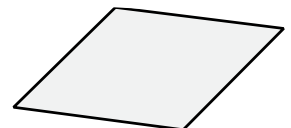
Recycling Materials
What else could you use for a Wiggle-Bot body?



AA Battery



Markers
(for scribble-bots)



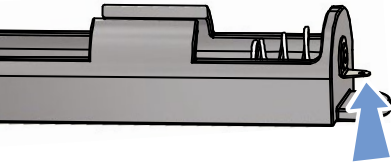
Large Paper or Poster Board
(for scribble-bots to draw on top of)

SUPER WIGGLE-BOT BUILD GUIDE

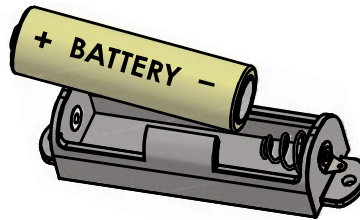


LET'S GET STARTED

- 1** Bend up the tabs on the **battery holder**, if it is not already bent.



- 2** Put the battery into the **holder** with the flat side against the spring.



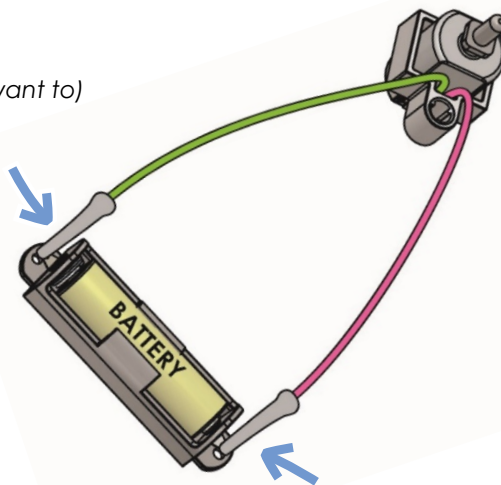
- 3** Connect the **motor** leads to the **battery holder** tabs. This should turn the motor on.



Turn the **motor** off (when you want to) by disconnecting a **lead**.



Open **alligator clip leads**, by pinching, to attach and detach them.

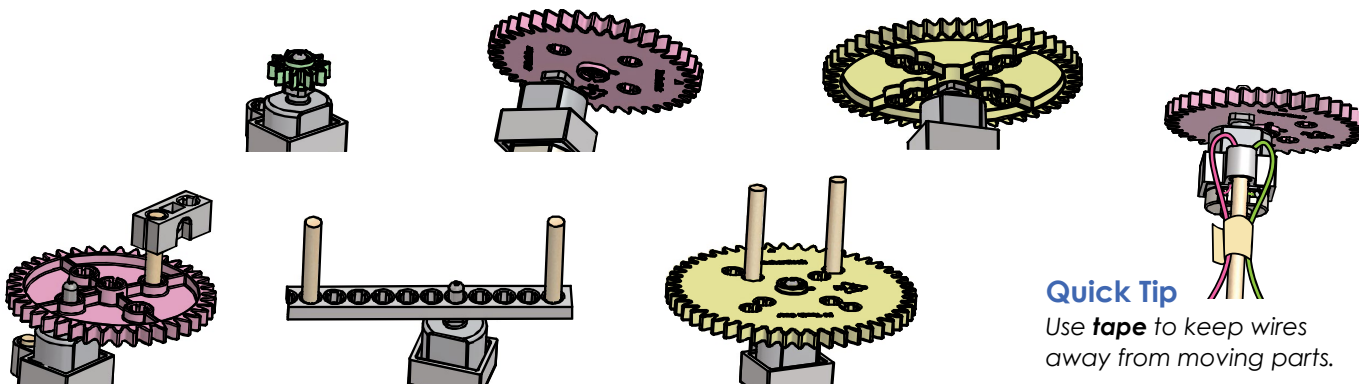


Want to learn more about electricity using your Wiggle-Bot?

Download the Electricity Lab at teachergeek.com/learn

MAKE IT SPIN

Attach different components to your **motor**, in different places. Can you make it vibrate slow or fast? Vibration (wobbling) can make your Wiggle-Bot move.



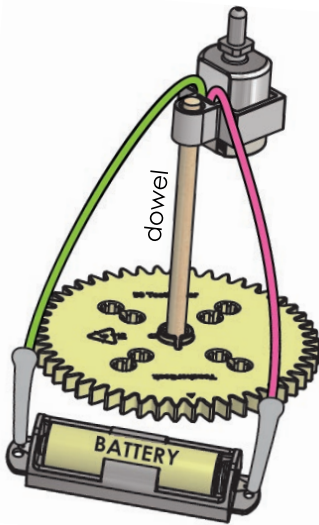
Quick Tip

Use **tape** to keep wires away from moving parts.

SUPER WIGGLE-BOT BUILD GUIDE

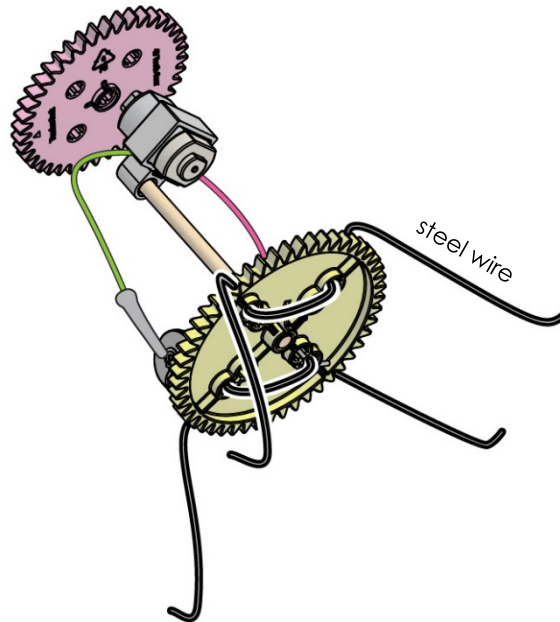


EXAMPLE WIGGLE-BOT DESIGNS



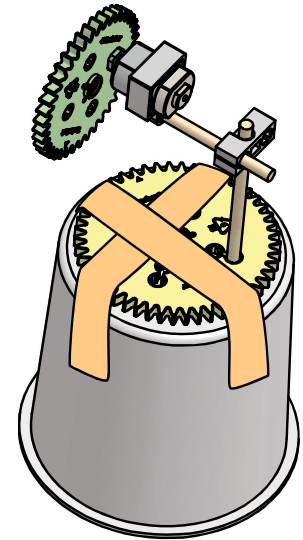
Idea #1

Attach the **motor** to a **dowel**. Then attach the **dowel** to other components, like **hole plates** and **gears**.



Idea #2

Use **steel wire** to create legs. Bend them to change how it wiggles.



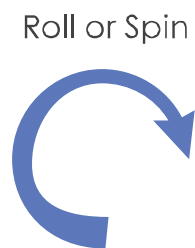
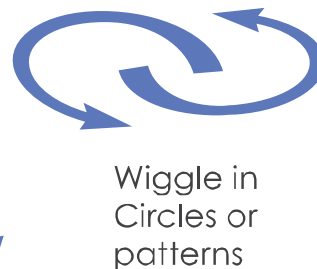
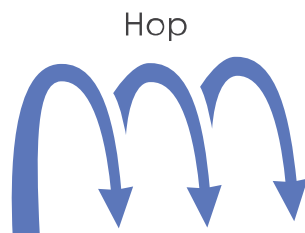
Idea #3

Use other materials to add to and change your Wiggle-Bot.

KEEP EXPERIMENTING!

Keep improving and changing your design (there is no perfect design, every design can be improved).

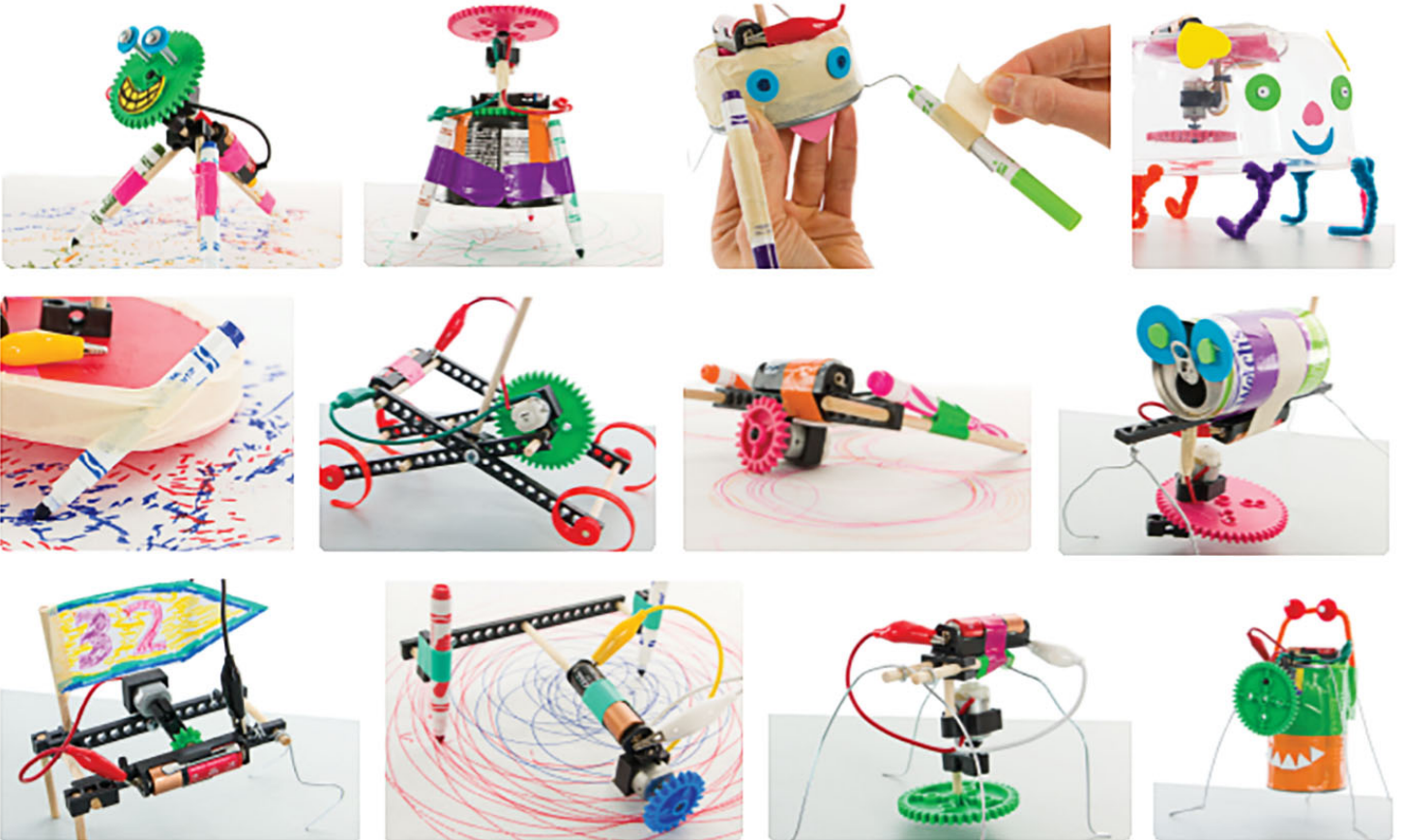
Can you make it...



SUPER WIGGLE-BOT BUILD GUIDE

INSPIRATION

Wiggle-Bots can be made in so many ways. Here are some ideas...



SCRIBBLE



Attach markers to your Wiggle-Bot. Draw crazy and fun patterns on a sheet of paper.

RACE



Create a Wiggle-Bot to race down a track. Compete against other Wiggle-Bots or go for your own personal record.

INVENT



Use Wiggle-Bot components to make your own inventions: a fan, wiggling pen, boat, or something else.