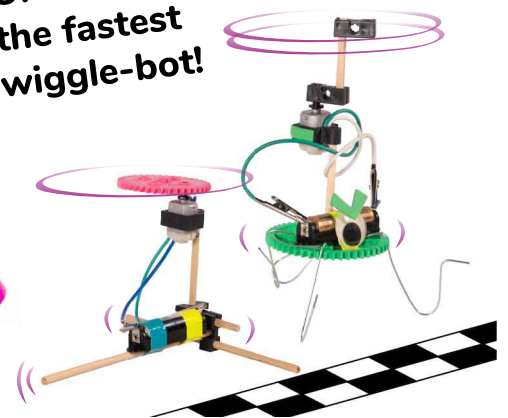
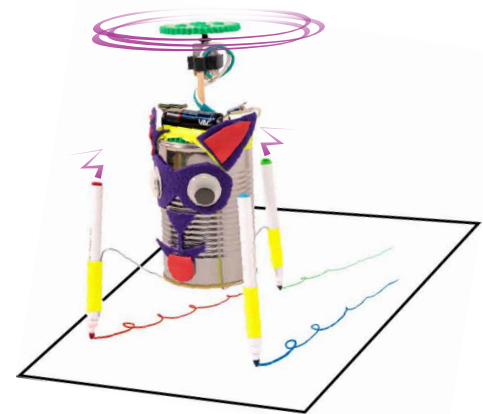


Design and build your own motorized Wiggle-Bot. Evolve your design to spin, wiggle, and more!

Create a scribble-bot that makes art!

Or compete to make the fastest wiggle-bot!



### You Are Here

Choose how you would like to complete this activity.  
Download documents & videos at [teachergeek.com/wiggle](http://teachergeek.com/wiggle)

### Go Guide

Start here! Build your Wiggle-Bot, evolve your design, and begin a challenge!

### Optional Labs

- Electricity Lab (Ages 8+)
- Wave Lab (Ages 8+)

### Optional Challenges

- Scribble-Bot Challenge\*
- Wiggle-Race Challenge\*

\*See Page 5

### Supplies

These are the parts you need to build one WiggleBot.

#### WIGGLE-BOT PARTS

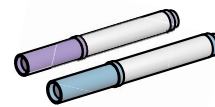
Do you have more parts? You may have the Super Wiggle Bots kit. Download the [Super Go Guide](http://teachergeek.com/wiggle) at [teachergeek.com/wiggle](http://teachergeek.com/wiggle)

NAME	QTY	PICTURE
<b>Gear Set</b> SKU 1821-28	<b>1 set</b> 4 gears	
<b>Blocks</b> SKU 1821-34	<b>2</b>	
<b>Battery Holder</b> SKU 1821-01	<b>1</b>	
<b>Small Motor w/Leads</b> SKU 1821-01	<b>1</b>	
<b>Steel Wire</b> 30 cm (12 in) SKU 1821-72	<b>2</b>	
<b>Dowels</b> various sizes SKU 1821-20	<b>6</b>	 <b>Dowel Sizes</b> 2x 30 cm (12")    1x 7.5 cm (3") 2x 15 cm (6")    1x 5 cm (2")

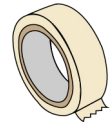
#### MATERIALS YOU SUPPLY



**Recycling Materials**  
What can you use for a Wiggle-Bot body?



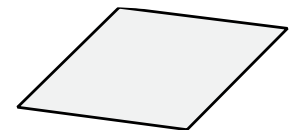
Markers



Tape



AA Battery



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

#### Optional Tools

Modify materials to make even more creative designs with the **Maker Tool Set** SKU 1823-84



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Caution:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Declaration of Conformity questions contact Darren Coon | 16551 Ridge Rd, Holley, NY 14470 | 888-433-5345

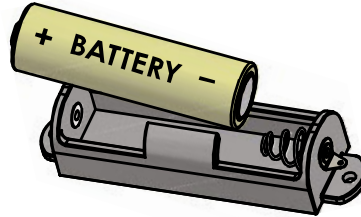
### Make It Spin



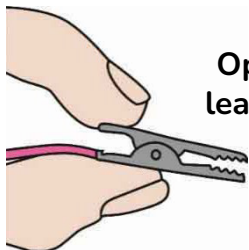
Want to learn more about electricity using your Wiggle-Bot?

Download the [Electricity Lab](http://teachergeek.com/wiggle) at [teachergeek.com/wiggle](http://teachergeek.com/wiggle)  
Ages 8+

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



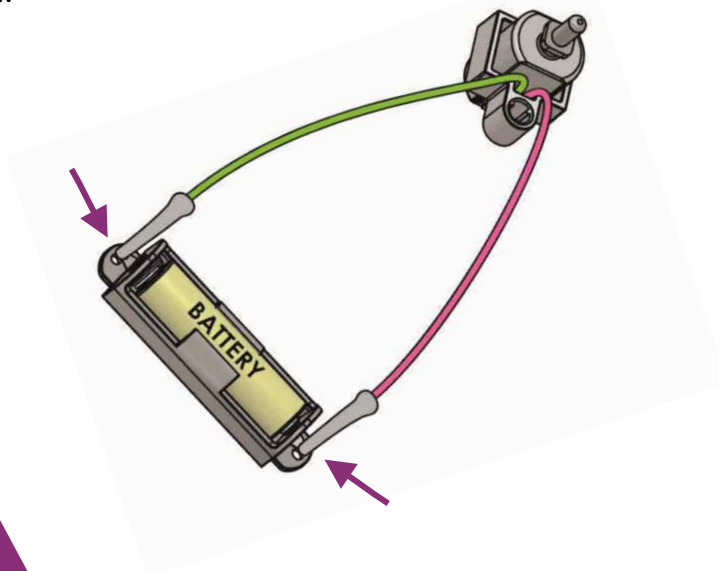
- 2 Connect the **motor leads** to the **battery holder tabs**. This should turn the motor on.



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

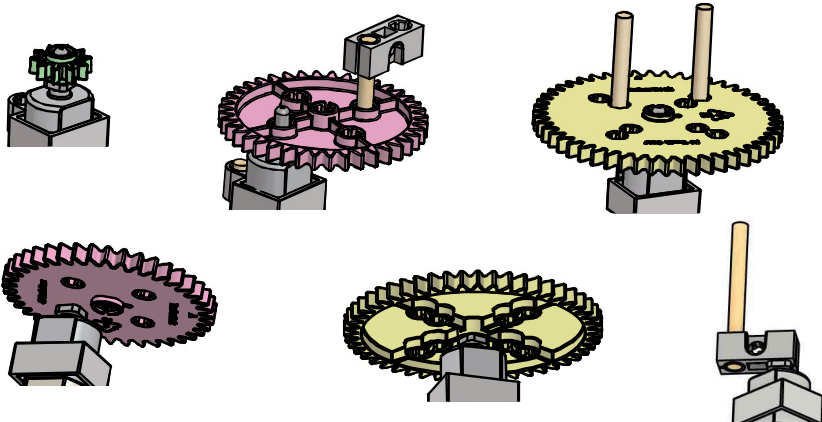


To turn the **motor off**, disconnect a lead.



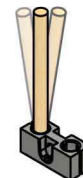
### Make It Vibrate

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.



#### Tip

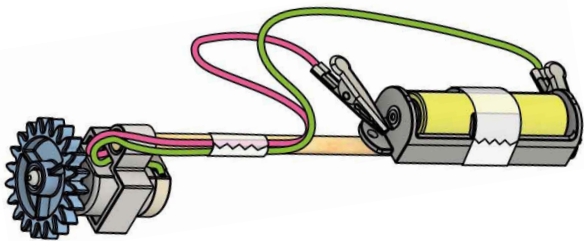
Connect dowels to components by wiggling or tapping them into holes.



### BUILD YOUR BOT

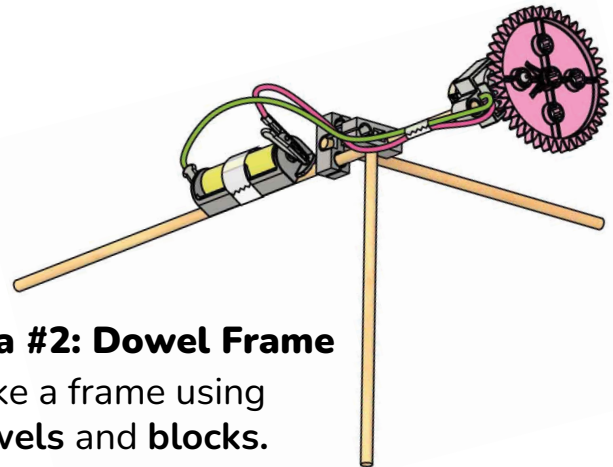
Here are some ideas to get you started.

**Your first design may not work, but don't give up!** You're doing real engineering! Keep experimenting and evolving your bot.



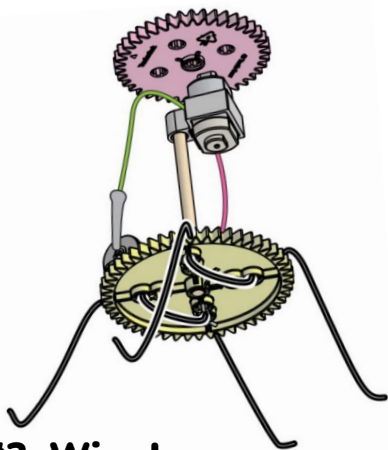
#### Idea #1: Spinner

Use **gears** as wheels to make your wiggle-bot spin in circles.



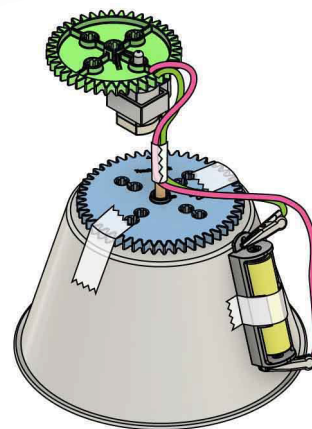
#### Idea #2: Dowel Frame

Make a frame using **dowels and blocks**.



#### Idea #3: Wire Legs

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



#### Idea #4: Other Materials

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



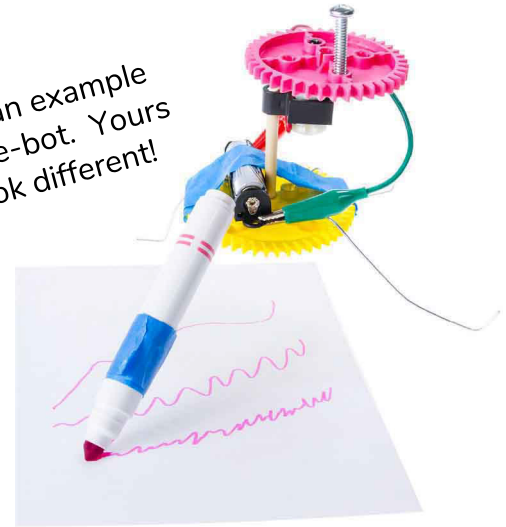
### Scribble Bot Challenge

#### Design a Wiggle-Bot to make artwork!

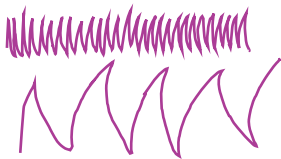
Attach markers to your Wiggle-Bot, then let it loose on a big piece of paper or poster board!

Redesign your Wiggle-Bot to draw as many marker patterns as you can!

This is an example scribble-bot. Yours will look different!



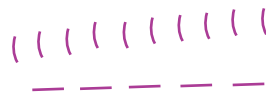
Zig-Zags



Loops



Dashes



Solid Lines



Dots



Want to learn more about waves?

Download the [Wave Lab](https://www.teachergeek.com/wiggle) at [teachergeek.com/wiggle](https://www.teachergeek.com/wiggle)  
Ages 8+

### Wiggle Race Challenge

#### Build the fastest WiggleBot!

Race an opponent or try for the shortest time!

Set up a start and finish line, then add yard sticks (or other boundaries) for each racer's lane (to keep your Wiggle-Bot going straight).

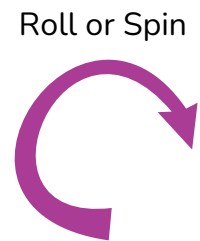
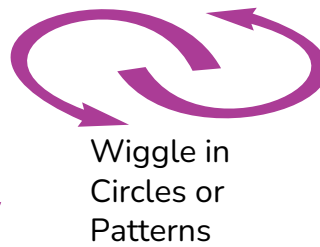
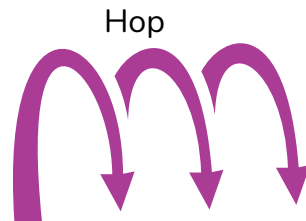
Don't have yard sticks?  
Poke your Wiggle-Bot to keep it going straight.



### Keep Experimenting

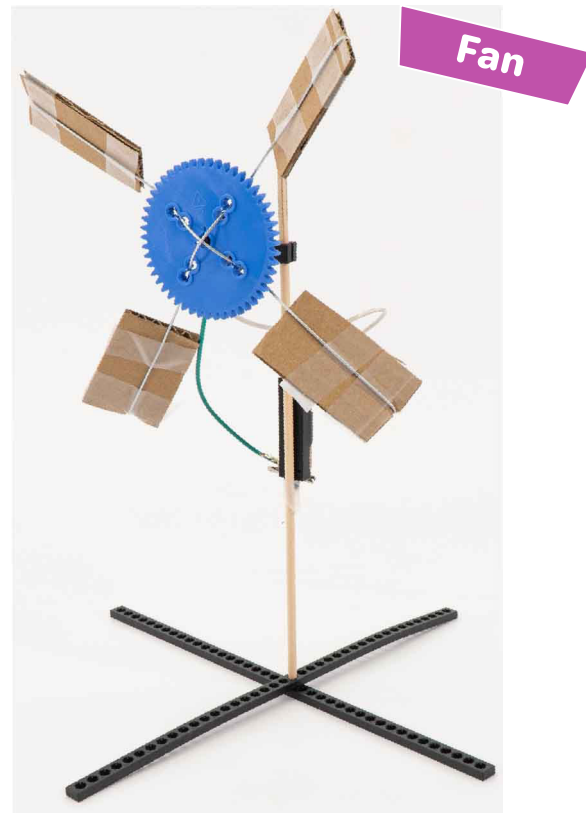
Keep improving and changing your design. There is no perfect design; every design can be improved.

Can you make it...



### What Else Can You Make?

Use Wiggle-Bot components to make your own inventions..



The only limit is your imagination!