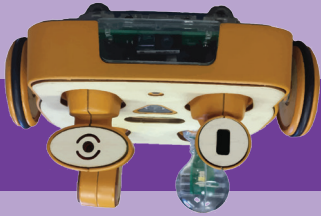


# Tips & Troubleshooting



Uh-oh ...

If the red scanner light is not blinking, it usually indicates a problem with the batteries. Remove and re-install the batteries. If that doesn't help, replace the batteries with new ones.

A tri-tone sound and a red scan LED means that an error occurred. KIBO may have mis-scanned, or there may be an error in your program. Try scanning again or re-arranging your blocks. Have fun experimenting!

If KIBO is turning left or right (or going backward) when it should be going forward, check the motors to make sure that the green dots are showing through KIBO's transparent bottom.

## Programming tips

Make sure you plug in the sensors that your program needs! If you use the WAIT FOR CLAP block, you will need the "ear" (sound) sensor. If you use the LIGHT or DARK parameter cards, you will need the "eye" (light) sensor. If you use the NEAR or FAR parameter cards, you will need the "telescope" (distance sensor). If you use the RED/WHITE/BLUE LIGHT ON blocks, you will need the light bulb.

## Take care of your motor modules!

KIBO's motor modules are designed to turn KIBO's wheels; they are not designed to carry a lot of weight. So, please don't force KIBO to go faster than it wants, and don't push down on KIBO's body when its wheels and motors are installed. These behaviors can damage the motor modules. Our warranty doesn't cover damage caused by improper motor use.



## Scanning tips

To scan, hold KIBO 2-4" away from the bar code. Shine the red scanner light onto the bar code. It's ok if the light is a little "bigger" than the bar code. If KIBO won't scan, try changing KIBO's position slightly. Move it slightly closer or farther away from the block and try changing the angle a little bit. If you're still having trouble scanning, notice if there is light reflecting from your stickers. Try moving away from direct overhead lighting and windows. Or, try scanning the sides of the blocks, instead of the top.



This type of reflection can interfere with scanning.

If scanning from the top isn't working ...



Try scanning from the side!



KIBO body



light output: light bulb



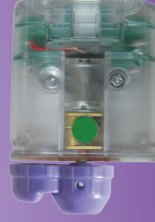
distance sensor: telescope



sound sensor: ear



light sensor: eye



motor modules (3)



wheels (2)



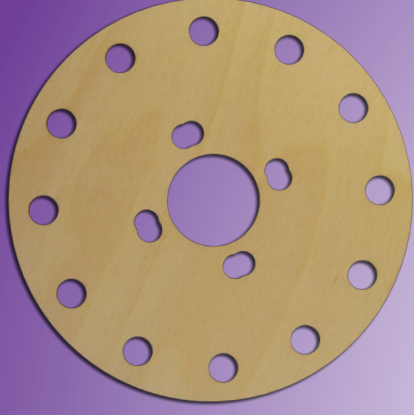
stage support



stage pedestal



rectangular stage



round stage



parameter cards (12)



programming blocks (18)

Colors of some components may vary. Additional parts available at [shop.kinderalabrobotics.com](http://shop.kinderalabrobotics.com) Complete parts list at [kinderalabrobotics.com/compare](http://kinderalabrobotics.com/compare)

Join our KIBO community! Sign up for our email newsletter for KIBO news, activity ideas, classroom tips, and more, at <http://kinderalabrobotics.com>



Follow us on Twitter: @KinderLabRobot



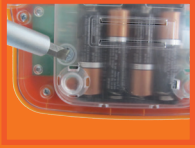
Visit us on Facebook <http://facebook.com/kinderalabrobotics>



# Getting started with KIBO

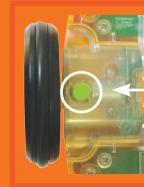


1. If this is your first time using your KIBO, insert 4 AA batteries into the battery case. The red scanner light will start blinking.



Screwdriver and batteries not included

2. Choose the motors, wheels, and sensors that you want to use. Insert the motors so that the green dot shows through KIBO's transparent bottom.



green dot



3. Sequence some blocks into a program. Every program needs a BEGIN block and an END block.



4. Push KIBO's triangular button to turn KIBO on. The red scanner light will blink.

KIBO will turn itself off if left alone for a few minutes.



5. Use KIBO to scan the bar codes on the programming blocks, left to right, one at a time\*. If your scan was successful, KIBO will beep and the scan indicator LED will glow green after each block.

(A red scan indicator LED indicates a scanning error.)



\*See scanning tips on the back of this guide.

6. Push KIBO's triangular button to tell KIBO to go!

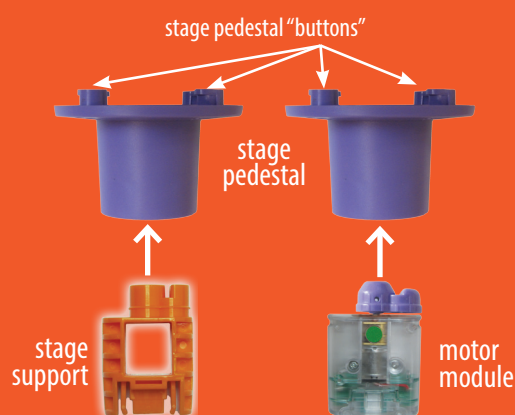
To re-run the program: push KIBO's button again.

To change your program: re-arrange the blocks, re-scan, and push KIBO's button. Watch KIBO go!

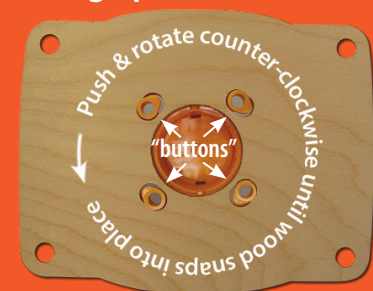


7. Decorate KIBO with the round or rectangular stage.

Insert stage support or motor module into stage pedestal



Insert the wood stage onto the stage pedestal buttons



Insert stage assembly into middle motor socket

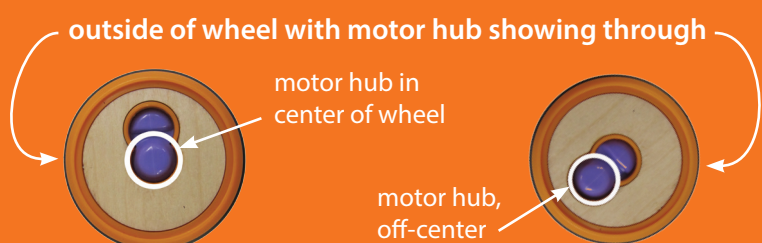
Decorate and play!



## Fun things to try

Try inserting the motors "upside-down," with the green dot *not* showing and see what happens.

Insert the motors into the wheels so that the motors' axles are *off-center*, relative to the center of the wheels, and see what happens!



Check out more fun challenges and activity guides at <http://resources.kinderlabrobotics.com>.

## Good things to know

**KIBO's lights can tell you lots of useful things:**

- KIBO's red scanner light and triangular button will blink when KIBO is ready to *scan* a program – OR – when KIBO is ready to *run* a program. The button will stop blinking while KIBO is scanning a program; the red scanner light will stop blinking while KIBO is running a program.

- When KIBO's triangular button blinks, it means that KIBO has a program stored in its memory. The triangular button will go dark while KIBO is scanning a new program, and also after inserting new batteries.

- You can put KIBO to sleep by pressing and holding the triangular button for several seconds.