FCC COMPLIANCE · U.S.
MODEL: MODULAR ROBOTICS CUBELETS

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.

2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit 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. The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without RF striction.

AGES **4+** Conforms to the requirements of ASTM Standard Consumer Safety Specification on Toy Safety, F 963.

CE ⊠ FC

2ADWN-CUBELET-KIT

cubelets

Modular Robotics

Cubelets

ROBOT BLOCKS

ROBOT BUILDER'S
HANDBOOK

WELCOME TO

cubelets

MR

WHY BUILD ROBOTS?

Our world is a complex system made up of lots of other complex systems, just like a bunch of tiny robots.

But also like these little robots, every complex system is made up of a bunch of smaller, very simple pieces that interact to create something much bigger.

Once you understand that, you can understand anything.

THE ROBOT RECIPE.

There are three key ingredients you need to make a Cubelets robot:

SENSE Cubelets are inputs. They take in information like light, distance, and temperature.

THINK Cubelets are little brains. They process information and send signals in the right direction.

ACT Cubelets are outputs. They do things like make sounds, spin around, and light up.
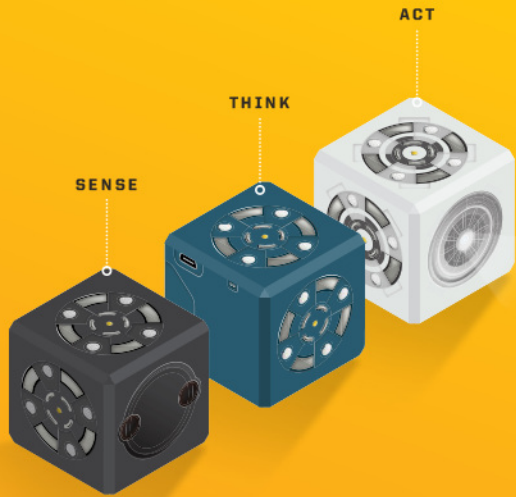
SENSE   THINK   ACT
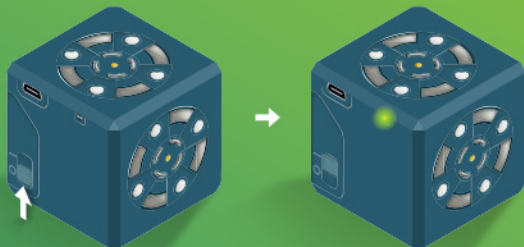
GETTING STARTED.

It's easier than you might think.

When you flip the Battery Cubelet switch to "on," you're ready for action! Connect SENSE, THINK, and ACT Cubelets and watch your robot behaviors emerge.

CHARGING:

When the battery gets low, recharge it by plugging the micro USB cable into any USB port. When fully charged, the amber light will turn off. It can take up to three hours to charge a fully discharged Battery Cubelet. Do not connect the Battery Cubelet to more than one power source.
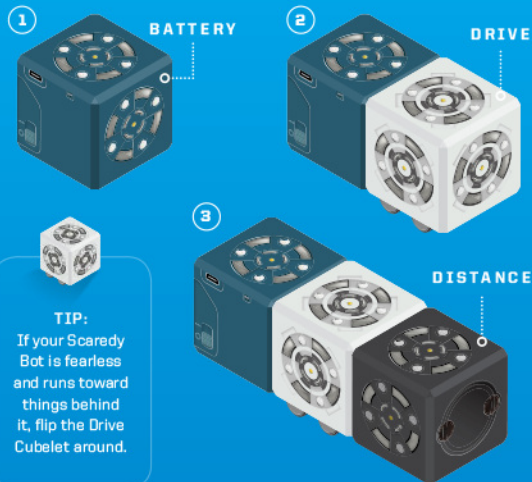
LET'S BUILD SOME ROBOTS TOGETHER.

Flip through the next few pages for some simple starter robots that can help teach you the fundamentals of building with Cubelets. Get the basics down and you can invent thousands of robots from your imagination!

Your first robot is the Scaredy Bot. The Scaredy Bot is afraid of everything. The second it sees something behind it, the Scaredy Bot runs away!

ROBOT 1
THE SCAREDY BOT

① **BATTERY**

② **DRIVE**

③

DISTANCE

TIP:
If your Scaredy Bot is fearless and runs toward things behind it, flip the Drive Cubelet around.

ROBOT 2
THE CONFUSED LIGHTHOUSE

The Confused Lighthouse is confused about its job. When it detects light, it goes to work, shining and spinning so that everyone can see the things they can already see. Silly robot.

1x BATTERY

1x BRIGHTNESS

1x ROTATE

1x FLASHLIGHT

① BATTERY   BRIGHTNESS

② ROTATE

③ FLASHLIGHT

TIP:
Help put some sense into the Confused Lighthouse by adding an Inverse Cubelet. That way it will shine its light when the room is actually dark.

ROBOT 3
THE NIGHT TRAIN

The Night Train is ready to chug along all night. The darker it gets, the faster the Night Train moves.

1x
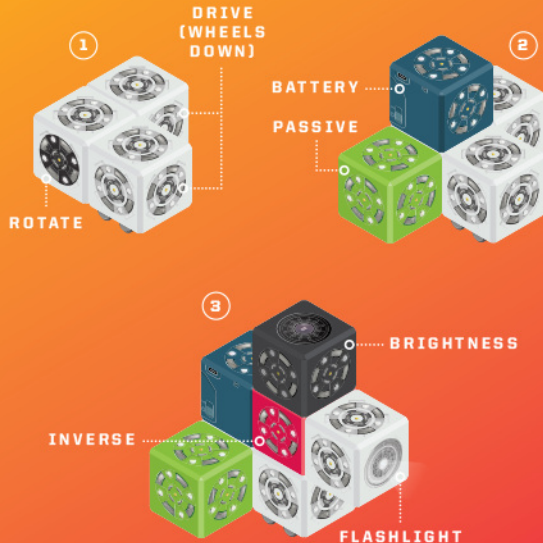BATTERY

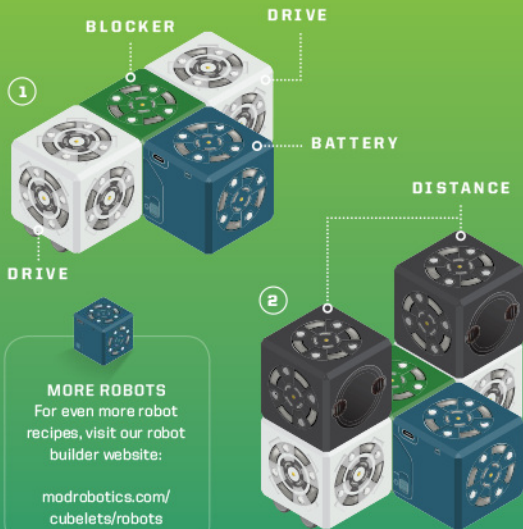2x
DRIVE

1x
BRIGHTNESS

1x
INVERSE

1x
ROTATE

1x
PASSIVE

1x
FLASHLIGHT

1
ROTATE
DRIVE (WHEELS DOWN)

2
BATTERY
PASSIVE

3
BRIGHTNESS
INVERSE
FLASHLIGHT

ROBOT 4
THE STEER

The Steer needs someone to herd it in the right direction. Wrangle the Steer whichever way it needs to go by placing your hands in front of the two Distance Cubelets.

1x
BATTERY

2x
DRIVE

2x
DISTANCE

1x
BLOCKER

BLOCKER

DRIVE

1

BATTERY

DRIVE

DISTANCE

2

MORE ROBOTS
For even more robot recipes, visit our robot builder website:

modrobotics.com/
cubelets/robots

CHAPTER 5

YOU'VE GOT BLUETOOTH.

Take your robots to the next level with the Bluetooth Cubelet. To get started, download the Cubelets app from the App Store or Google Play. Use your device's settings menu to pair with your Bluetooth Cubelet(s), then start exploring the new world of possibilities at your fingertips.

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CUBELETS LOVE COMPANY.

Get more Cubelets to build bigger and smarter robots! For more information and to see the full line of available Cubelets, visit modrobotics.com.

THINK

THINK Cubelets are little brains. They process information and send signals in the right direction.

BLUETOOTH

PASSIVE

BLOCKER

THRESHOLD

INVERSE

MAXIMUM

MINIMUM

SENSE SENSE Cubelets are inputs. They take in information like light, distance, and temperature.

ACT ACT Cubelets are outputs. They do things like make sounds, spin around, and light up.

DISTANCE

KNOB

BRIGHTNESS

TEMPERATURE

ROTATE

SPEAKER

BAR GRAPH

DRIVE

FLASHLIGHT

MR

WHO IS MODULAR ROBOTICS?

We are! We build tiny robots from a factory nestled in the foothills of the Rocky Mountains in Boulder, Colorado. We build these tiny robots for kids because we believe that toys can help shape the way children think about the world.

Our goal is to create remarkably fun play experiences that impart an intuitive understanding of complex systems and design thinking. In other words, we make tools that help kids better understand the world around them.
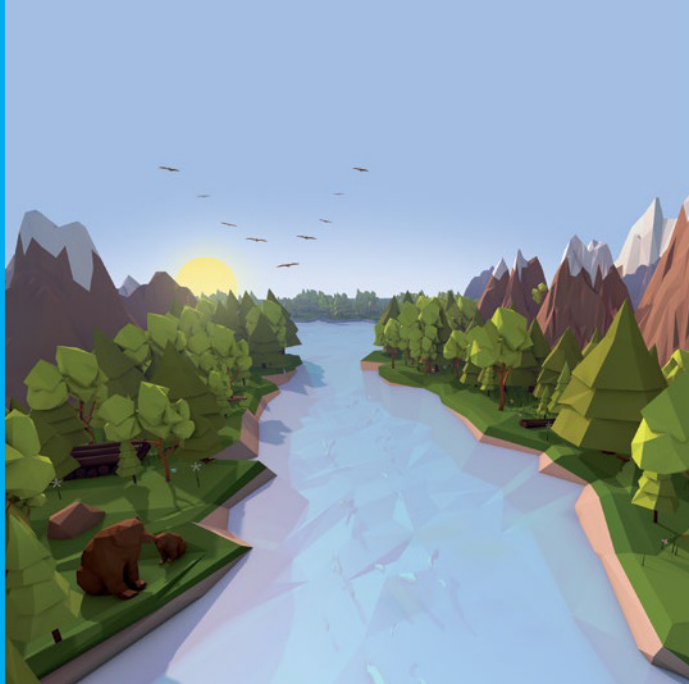
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