



Fun at Home with Bee-Bot and Blue-Bot



Activities for Children to Explore with Their Bots!

Welcome to the **Bee-Bot Home Activity Cards**! We hope you will find them fun to explore with your children at home. The activities will help them get the most out of Bee-Bot or Blue-Bot and give them hours of engaging things to try. They will even learn to invent their own challenges!

Are your children are using Bee-Bots or Blue-Bots in school? If so, they already know how to use them.

If you received Bee-Bot or Blue-Bot as a gift, it was likely from a fan of these bots who wanted to introduce them to your children.

Some activities use common household items like dice, coins, playing cards, rulers, balloons, and stuffed animals. If you don't have those items, the activities will suggest alternatives.

The activities should be done in order, at least through Activity Card #5.

Most activities are designed for one child using one Bee-Bot or Blue-Bot. Others (showing two bots) are fun for two children with two bots. Invite friends over to join in the fun!

Although the pictures and words in some activities refer to or show Bee-Bot, they can all be done with Blue-Bot as well.

What's next after these activities?

Students can try the [Coding Journeys](#) that have Online Emulator mats for Bee-Bot, Blue-Bot and Pro-Bot. If they become comfortable using these other emulators, it may be time to acquire those robots.

[Blue-Bot](#) commands are similar to Bee-Bot commands, except that Blue-Bot can turn 45 degrees and create loops using the [Blue-Bot Online Emulator](#). [Pro-Bot](#) can move any distance and turn any angle, making it much more powerful. You can try out Pro-Bot in the [Pro-Bot Online Emulator](#).

We hope you enjoy using these activities with your children. [Click to send us feedback.](#)

~ *The Terrapin Team*

Bee-Bot Activity Card #1

Let's get started!

Step 1: Take Bee-Bot out of the box.

Step 2: Make sure the power switch is **OFF**.

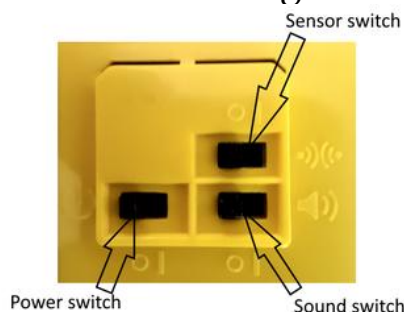
Step 3: Charge Bee-Bot using the provided USB cable.

One eye will glow green while charging.

The green light turns off when Bee-Bot is charged.

Step 4: Turn **ON** all three switches at the bottom of Bee-Bot.

Step 5: Go to Activity Card #2!



Bee-Bot Activity Card #2

**Discover what
Bee-Bot
can do!**



Try pressing the buttons on Bee-Bot's back.

Can you figure out what each button does?

How are the buttons different from each other?

If Bee-Bot doesn't do anything, make sure all the buttons underneath it are turned on.

Bee-Bot Activity Card #3

What can you get Bee-Bot to do?

Try these challenges. Press **X** before you start each one.

1. Make Bee-Bot go forward 3 steps.
2. Make Bee-Bot go forward and then turn right.

Did you think Bee-Bot would keep going after it turned?

Bee-Bot only goes forward when you tell it to!

3. Make Bee-Bot go forward, turn left, then go forward.
4. Make Bee-Bot go forward and then go backwards.
5. Make Bee-Bot go forward, back, turn right, go back.

Bee-Bot Activity Card #4

Be a detective!

Your job is to figure out how Bee-Bot moves on different surfaces.
Try moving and turning Bee-Bot to see how it does on each of these:

- | | |
|---|---|
| ☐ carpet _____ | ☐ tile floor _____ |
| ☐ wood floor _____ | ☐ cement _____ |
| ☐ linoleum _____ | ☐ vinyl _____ |
| ☐ other _____ | ☐ other _____ |

Make notes on the lines above so you remember what works best.

Note that we don't recommend using Bee-Bot outdoors.

Tuff-Bot, however, is great to use outside! (terrapiinlogo.com/tuff-bot.html)

Bee-Bot Activity Card #5



Send Bee-Bot to visit a pet.



This activity uses a stuffed animal (or pet).
Place it somewhere in the room with you.

Put Bee-Bot in front of you, pointing straight ahead.

Don't point Bee-Bot at the animal. (That would make it too easy!)

Guess how many commands it will take to send Bee-Bot to visit your pet. Enter the commands. Was your guess close?

Move your stuffed animal to somewhere else in the room.

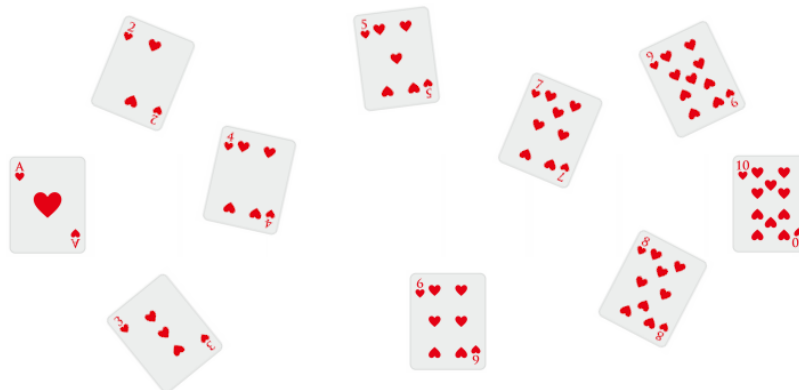
Send Bee-Bot to visit your pet in its new spot!

If you have a real pet, how does it react to Bee-Bot?

Do you think it likes Bee-Bot? Is it scared? Is it curious?

Bee-Bot Activity Card #6

Follow the numbers!



Find a deck of cards. Pull out all the numbers in the same suit.

(If you don't have cards, you can write numbers on small pieces of paper.)

Spread the cards around the room so you can see the numbers.

Send Bee-Bot to all the numbers in order!

Bee-Bot Activity Card #7



Take Bee-Bot on a penny hike.



Do you have a coin and a die to use for this activity?
If you don't have a die, make cards with numbers from 1 to 6 on them.

First, toss the coin.

If it comes up **heads**, turn Bee-Bot to the **right**.

If it comes up **tails**, turn Bee-Bot to the **left**.

Then, roll the die.

Send Bee-Bot forward the number of pips (dots) on the die.

If you can't go forward that far without bumping into something, send Bee-Bot backwards.

Flip the coin and roll the die so Bee-Bot can continue the random walk!

Bee-Bot Activity Card #8

Send Bee-Bot along a path.

Cut thin strips of paper and lay them out to make a path.

Code Bee-Bot to travel along the path.

Rearrange the strips of paper to
make a different route.

Can you send Bee-Bot backwards
along the path?



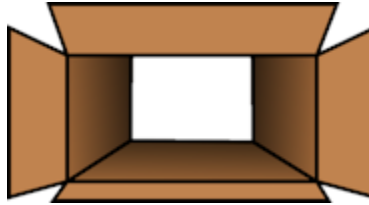
Bee-Bot Activity Card #9

Send Bee-Bot through some tunnels.

Make some tunnels using small cardboard boxes.

Some may be tall and others wide. Make openings at both ends.

Be sure that Bee-Bot can easily fit through them.



Place the tunnels in different spots in the room.

See if you can code Bee-Bot to go through them, one after the other!

Bee-Bot Activity Card #10

Let's play with a see-saw!



Can you figure out how to make a little see-saw?

It doesn't need to be big, but you may need some help finding the parts.

Do you have a solid triangular building block?

And a long piece of stiff cardboard or wood?

Put Bee-Bot at one end and give it some forward commands.

Does Bee-Bot tip the other side down when it goes past the middle?

Bee-Bot Activity Card #11

Send Bee-Bot through a maze.

Collect a lot of long, thin items from around the house.

They could be pencils, rulers, yardsticks, or string.

They might be books or envelopes.

If you have blue painter's tape, use that.

Painter's tape is easy to remove later and it doesn't leave a sticky mess.

Arrange the items or tape to make a maze for Bee-Bot to explore.

Try not to let Bee-Bot bump into any of the walls!

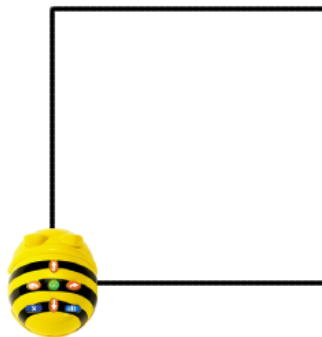
Rearrange the pieces to form new mazes.

Bee-Bot Activity Card #12

Can Bee-Bot make a square?

Which buttons would you press to move Bee-Bot around a square?

Can you figure out a pattern to use?

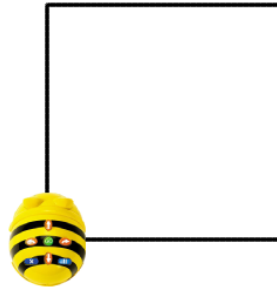


Bee-Bot won't draw a line, but you can tell how it did by watching it.

If Bee-Bot didn't do what you wanted, just press **X** and try again.

Bee-Bot Activity Card #13

TOP SECRET— Here's a shortcut for making a square!



If you figured out that Bee-Bot needs to go forward, then turn right, and repeat that 3 more times to make a square, good job!

Now try this! Is it an easier way to make the square?



wait



wait



wait



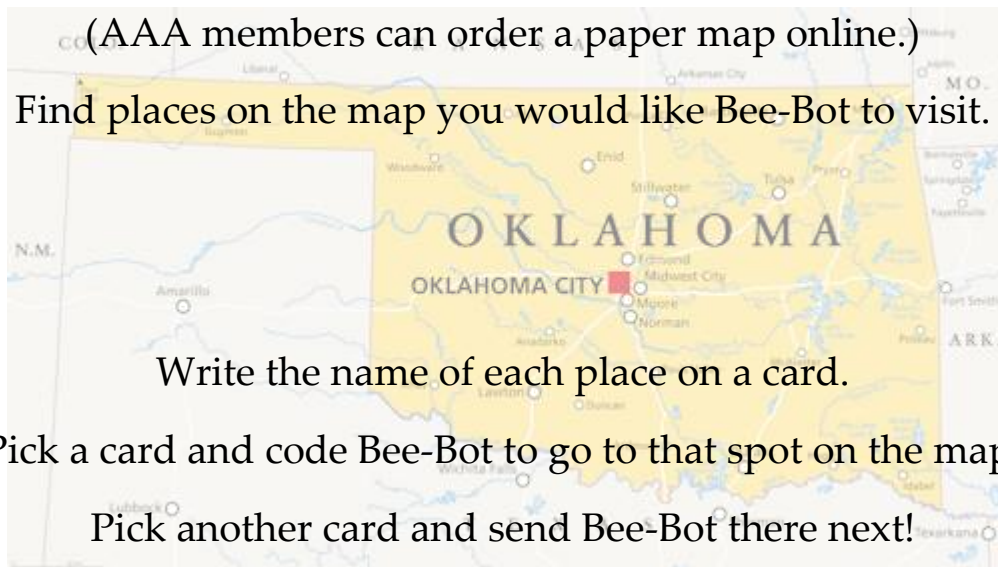
Bee-Bot Activity Card #14

Take Bee-Bot on a road trip!

Do you have a large, paper map of your state?

(AAA members can order a paper map online.)

Find places on the map you would like Bee-Bot to visit.



Write the name of each place on a card.

Pick a card and code Bee-Bot to go to that spot on the map.

Pick another card and send Bee-Bot there next!

Bee-Bot Activity Card #15

Take Bee-Bot on a tour of your neighborhood.

Draw several houses on paper and cut them out.

Write the names of your friends who live in each house.



Arrange the houses on the floor to create a map of your neighborhood.

Code Bee-Bot to visit all the friends who live nearby!

Bee-Bot Activity Card #16

Can you code Bee-Bot to make this letter?



Write down the commands you used.

Bee-Bot Activity Card #17

Can you code Bee-Bot to make a different letter?

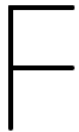
What letters can Bee-Bot make?

Keep in mind that Bee-Bot can only turn square corners.

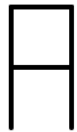
Teachers call them **right angles** or **90-degree angles**.

(You can impress your teacher by using those words!)

Try coding Bee-Bot to form some of these letters?

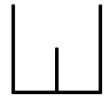


E F H I L



You can also make these letters using just square corners.

A B C D J M O P S U W



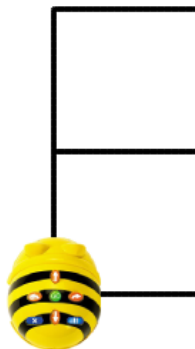
Bee-Bot Activity Card #18

Guess my letter!

Code Bee-Bot to make the shape of a letter.

When you have all the commands in the right order, invite a friend or family member to come watch Bee-Bot.

Can they guess which letter Bee-Bot was making? Maybe it was an E!



Bee-Bot Activity Card #19

Bee-Bots can make even more sounds!

Did you know that Bee-Bots and Blue-Bots can talk to you?

Press down any command button for 2 seconds.

After the beep, record a message.

Now, whenever you press that command button,
Bee-Bot will play the recording you made!

You can say the name of the command.

You could record the name of the button in a different language.

You could record a sound effect!

To erase all messages, press the **Clear** button for 2 seconds.



Bee-Bot Activity Card #20

Chatty Bee-Bots!

Bee-Bots and Blue-Bots know if they get close to each other!

They have special sensors to do this.

(Make sure all three switches are turned on for both bots.)

They will each play a sound or message when they are near the other.

To make a special recording for each bot, hold down
its **GO** button for 2 seconds and speak your message.



To erase all messages, press the **Clear** button for 2 seconds.



Bee-Bot Activity Card #21

Bee-Bot Parade!

The next time there is a birthday party at your house with balloons that float in the air, you can make a fun Bee-Bot parade!

It is even better if you have more than one Bee-Bot!



Decorate the balloon! Use markers, add a hat or ears, or anything else you want.

Tie one end of a string to the end of the balloon and tie the other end around the bottom of Bee-Bot.

Give your Bee-Bots commands to follow each other around the house! Add some music for more fun!



Bee-Bot Activity Card #22

Bee-Bot Race!



Place two Bee-Bots or Blue-Bots on a starting line.

They should be right next to each other and face the same way.

Now, you and your friend enter the same number of



forward commands and then press GO.



Make sure you have planned ahead so they don't bump into anything!

Which Bee-Bot was ahead and won the race when they both stopped?

Can you think why they might not go the same distance?

(If a Bee-Bot's battery charge is low, it may not go as fast.)



Bee-Bot Activity Card #23

Bee-Bot Dance!

Invent a dance for your bots!

Maybe they move forward. Maybe they move back.

They might turn left, then right.

Maybe they sometimes turn the opposite way.

Should you repeat a set of commands?

Maybe you want to add a pause or two!

When you have figured out the sequence of commands,
code Bee-Bot and Blue-Bot to do them.

How did it go! Make a video of your dance!

Bee-Bot Activity Card #24

Create your own Bee-Bot adventure!

Now that you have had a lot of experience with Bee-Bot,
you can made up your own activity!

Decide what you would like to like to do.

Create a detailed plan.

Code Bee-Bot to do what you want.

Did your commands work?

If not, press **Clear** and try again!

Every coder needs to learn to debug their program.

Bee-Bot Activity Card #25

Use Bee-Bot online!

Did you know that Bee-Bot lives online, too?

You can go to beebot.terrapiinlogo.com code and try all types of mats.

You can even play Snakes and Ladders! Have fun!

