## I. Using IF Statements

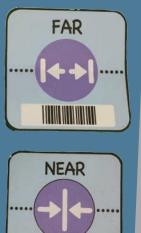


IF Statements allow KIBO to make choices based on what it can sense, just like you can!

Use these 4 parameter cards with your If Statements. Remember to attach the appropriate sensors.







You can place segments of your code inside of IF Statements, and KIBO will only use them if the condition is true. Don't forget your END IF block.

Try it out! Attach a Distance Sensor to your KIBO and scan this code.



Place your KIBO far from an object and press KIBO's button! Does anything happen? Why? What happens when you place the KIBO near the object instead?

## **II. Using IF Statements**



The IF Statement gives KIBO a choice about what to do. Programming blocks that you place before or after the IF Statement will be executed no matter what. IF Statements make sandwiches just like REPEAT Loops. Don't forget to use END IF.

**IF NEAR** 

-Shake

**END IF** 

Attach a Light Sensor to your KIBO, grab a flashlight, and scan this code. BEGIN SHAKE IF LIGHT SING END IF SPIN END IF OD IF

Shine your light on KIBO's Light Sensor and press KIBO's button! What happens? Why? Turn off the flashlight and try again. Does KIBO still sing?

## **If Statement: Activity 1**

Scared of the dark! Your **KIBO** loves to play during the day but is afraid of the dark at night.

DARK

WHITE LIGHT ON

LIGHT

First, decorate your KIBO to look just like you!

Next, use a flashlight, programming blocks, and IF Statements to make your KIBO play if it is bright, or act scared if it is dark.

What does your **KIBO** like to do in the light? What will your KIBO do if it is in the dark?

SPIN

SHAKE

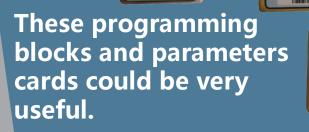
FORWARD

END IF

END

BACKWARD

HINT:



BEGIN

## **IF Statement: Activity 2**

Saying Hello! Your KIBO friend gets excited when you are near!

First, decorate your KIBO to look like your friend or pet. Next, use programming blocks and IF Statements to make your KIBO excited if you are near, or sad if you are far away.

Wave your hand in front of the Distance Sensor to tell KIBO you are there. How will your friend say hello?

