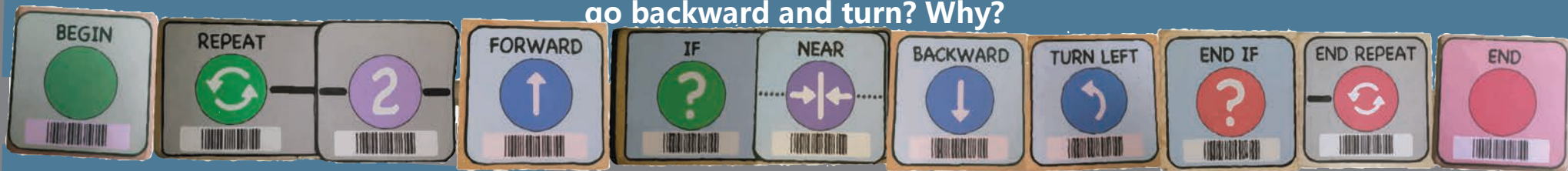


# Advanced Programming: Nested REPEATs & IFs

KIBO can be programmed to do more complex tasks if REPEAT Loops or IF Statements are placed inside of one another. These are called nested statements.

The IF Statement is nested inside of the REPEAT Loop. What does KIBO do? When does KIBO go backward and turn? Why?



KIBO can make more complex choices when an IF Statement is nested within another IF Statement. What do you have to do to make KIBO beep? How can you make KIBO spin?



KIBO can repeat different parts of code when a REPEAT Loop is nested within another REPEAT Loop! Follow along with KIBO. What does KIBO do in the light? What does KIBO do in the dark? Why?



# Nested REPEATs and IFs Activities

With nested statements, the possibilities are endless. Here are a couple of project ideas to get you started!

## The Impatient Driver

Your KIBO car hates being stuck in traffic. Decorate your KIBO like your favorite car. Then, program it to repeatedly move around the room and beep its horn if another object (or even another KIBO) gets in its way.

## The Sneaky Mouse

Your KIBO mouse loves to look around for cheese, but it is very sneaky. Decorate your KIBO to look like a mouse and make some cheese for it to find. Then, program KIBO to move to the cheese, but only if it is dark, and if you are far away.



**Remember!**  
A nested statement must be entirely inside of the REPEAT Loop or IF Statement you place it inside.



Try coming up with your own projects!  
What do you want your KIBO to do?  
What will your KIBO become?