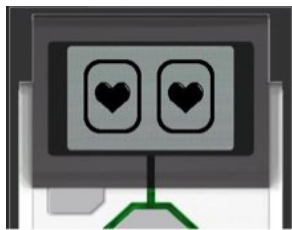## PROGRAMMING CHALLENGE:

In this lesson, we will help GRIPP3R get his toy back. GRIPP3R will drop his toy, cry, and will display a sad face. When you wave in front of his Infrared sensor, and then give him this toy, he will lift it up and show a happy face and say "thank you". He will say "good bye" and turn away.

No Toy

With Toy

BLOCKS YOU NEED:

Medium Motor Block to move the robot's arms and **Move Steering Block** to make the robot turn.
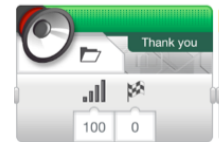
Wait For block (time, touch and infrared sensors)

Display Block to show sad and happy faces

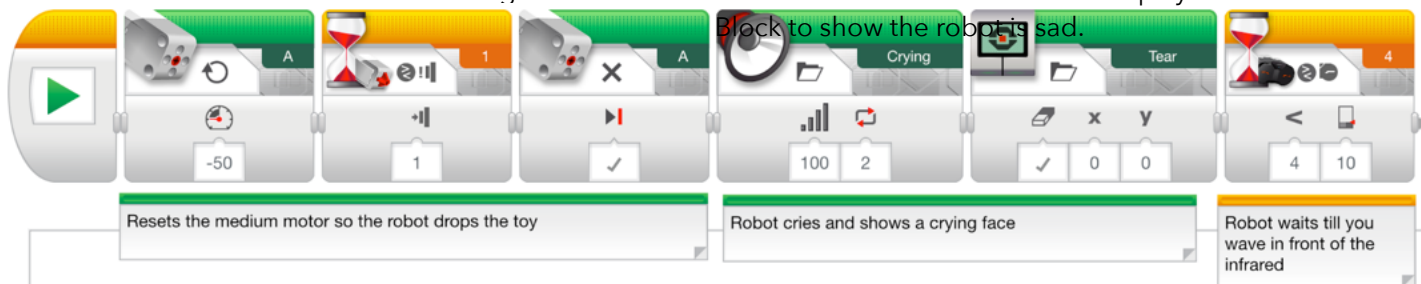**Sound Block** to make the robot cry and say "thank you" and "goodbye"
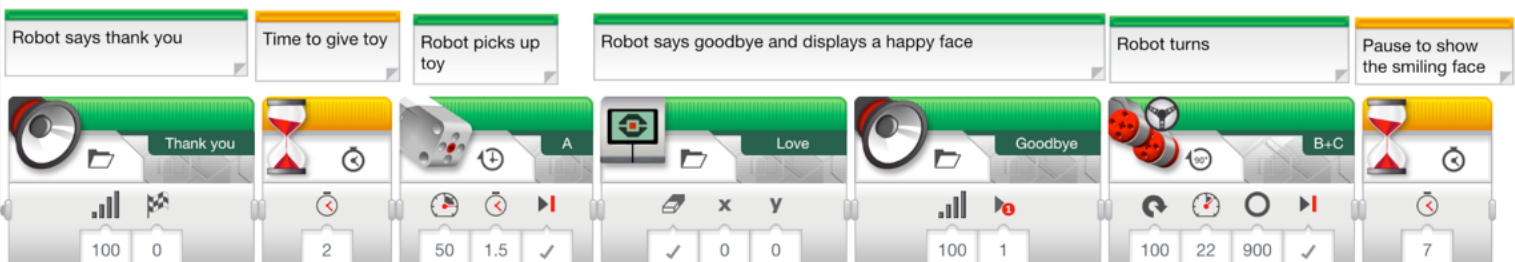
STEP 1: Reset the arm first using the Medium

STEP 2: Use a Sound Block and Display Block to show the robot is sad.

STEP 3: Wait for the infrared sensor

Resets the medium motor so the robot drops the toy

Robot cries and shows a crying face

Robot waits till you wave in front of the infrared

SOLUTION

Robot says thank you

Time to give toy

Robot picks up toy

Robot says goodbye and displays a happy face

Robot turns

Pause to show the smiling face

STEP 4: Say "thank you" and wait a little to receive the toy

STEP 5: Move the Medium Motor to hold the toy.

STEP 6: Use a Sound Block to say "good bye" and Display Block to show the robot is happy.

STEP 7: Use the Steering Block to have the robot turn so you can see the smiling face. for 7 seconds