FOLLOW ME, TRACK3R!

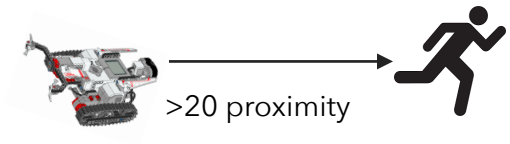
Designed for LEGO® MINDSTORMS® 31313 and EV3 Programming App

PROGRAMMING CHALLENGE:

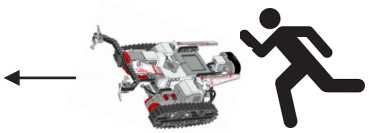
In this lesson, you program TRACK3R to follow you (but keep a certain distance away) using the infrared sensor.

Constant Distance Away:

If the robot is more than 20 proximity away from the person, it will move closer.

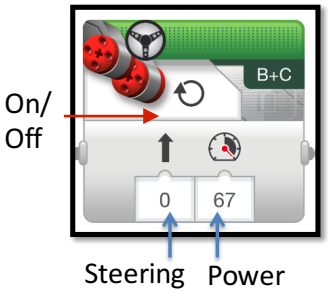


If the robot is less than 20 proximity away, it will move away from the person.

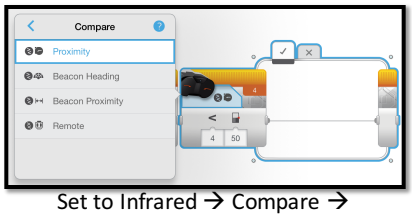


BLOCKS YOU NEED:

Move Steering block in "On" Mode found in the Green Programming Pallet tab

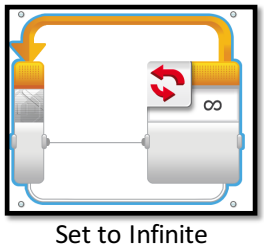


Switch block that uses the Infrared Sensor in the Compare Proximity Mode found in the Orange Programming Pallet tab



Set to Infrared → Compare → Proximity

Loop block that repeats forever found in the Orange Programming Pallet tab



Set to Infinite

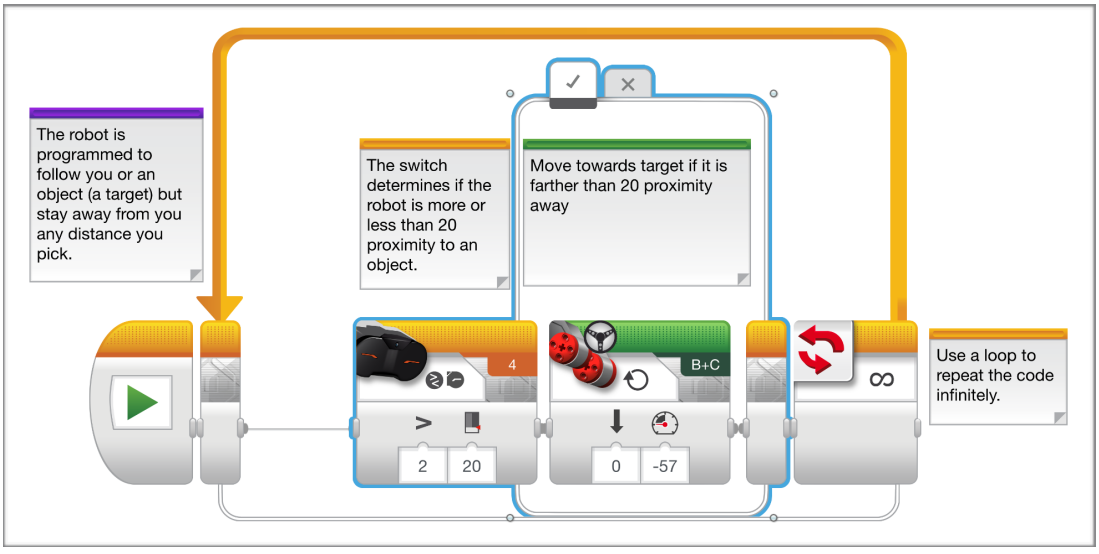
FOLLOW ME, TRACK3R in Four Easy Steps:

STEP 1: Start with a Switch that makes a decision based on the infrared sensor in "Compare Proximity" mode.

STEP 2: Inside the Switch, use a Move Steering Block in "Motor On" mode. Make the robot move forward or back based on if the robot is more or less than 20 proximity (Change the Power input to change directions).

STEP 3: Place all of the above in the Loop Block

STEP 4: Download your program to TRACK3R. Walk in front of the infrared sensor and have the robot follow you.



On TRACK3R, the Infrared sensor is BEHIND the robot. Therefore, moving closer to the person is actually moving backwards for the robot! Negative Power = backwards.

In the True tab, the robot's Power is set to -57 (moving backwards) to get closer to the person.

In the False (X) tab, you change the Power input on the Steering Block to +57 to make the robot move forwards (away from the person).