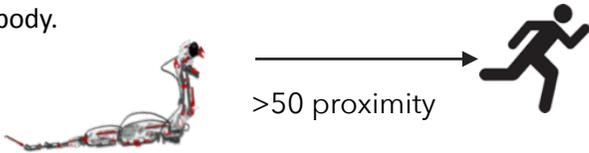


PROGRAMMING CHALLENGE:

In this lesson, R3PTAR will move forward and turn. But if you get too close, the snake will attack, back off and turn. You will use the infrared sensor in this challenge.

Constant Distance Away:

If the robot is more than 50 proximity away from the person, it will move closer and turn its body.

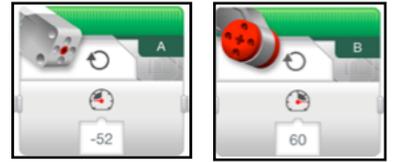


If the robot is less than 50 proximity away, it will attack (open its mouth), back off and turn.



BLOCKS YOU NEED:

Large and Medium Motor blocks found in the Green Programming Pallet tab in On Mode.

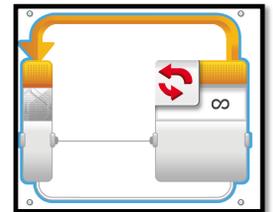


Switch block that uses the Infrared Sensor in the Compare Proximity Mode found in the Orange Programming Pallet tab



Set to Infrared → Compare → Proximity

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



Set to Infinite

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DON'T TREAD ON ME

STEP 1: Start with a Switch that makes a decision based on the infrared sensor in "Compare Proximity" mode (>50).

STEP 2: Inside the Switch, use Medium Motor (A) and Large Motor (B and D) in "Motor On" mode to control the snake. In True, you want the robot to close its mouth, move forward and turn. In False, you want the robot to open its mouth, then back off and turn. Note: Negative power = backwards)

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

STEP 4: Download your program to R3PTAR.

On R3PTAR, the infrared sensor is in the front of the robot. The body of the snake is on Motor B and will move the robot forward or backward. Motor A lets the snake turn. You open and close the mouth using Motor D.

