Getting Rescue Robot Ready

Name: _____

GETTING STARTED

Robots help us do many things. They can do this when we tell them what to do, by giving them some sort of input.

To get your robot to be a rescue robot you will need to program it, or give it the correct input, to move forward, backwards, and to turn. You will also need to think about what sensors you will use and what happens to the robot when the sensors are activated.

Use the space below to write down what you think you need to know or be able to do, to program your rescue robot.

ROBOLAB ICONS

1. What does it mean when 'Port' B and C are lit up in orange?

2. What does the 'Direction' option let the robot to do?

3. What does the steering part do?

4. Which setting will make the robot move faster, 'Power' level 20 or 80?

5. What does 1 rotation mean?

6. What are the 3 other options for Duration?
   A)
   B)
   C)
7. What options are available for 'Next Action'?
   A)
   B)

LET'S GET PROGRAMMING

Using the tutorials in the 'Common Palette', complete the following lessons and paste or draw the program into the box. Think about how these might be useful when you go to complete the rescue challenge.

8. Go forward (Lesson 3)

9. Curve turn (Lesson 6)

10. Square (Lesson 8)

11. Sonic sensor (Lesson 15)

12. Line sensor (Lesson 16)

13. Follow a black line (Lesson 17)

14. Pick another lesson of your own choosing

WRITING OUR OWN PROGRAMS

You are now ready to write some programs of your own. Write a 5 step program for your robot, download it to your robot, and then test it to see if it works. Using the 'Writing our own programs' sheet (get this from your teacher), name your program, and then print or draw it onto the sheet and write a short paragraph about what it was meant to do and what happened when you tested it. Do this at least five times. Glue your work on this page.

Glue your 5 step programs here

Robotic Reflection

Robots can help us in many ways. Every day they make our lives safer, easier, and better. People need to tell robots how to do the things they do, by inputting information or instructions (programming them). This involves working out what the problem is, and explaining it in a way that your robot can understand. Sometimes this process does not go as well as we had hoped, and we need to rethink or remake our robot or the program. To be a successful robot programmer you need to be adaptable, have flexible thinking, be creative, and work with others. Have you used any of these in your work with robots?

In the space below, write about some difficulties you experienced when working or programming your robot, and explain how you used the above ideas to help solve the problems.