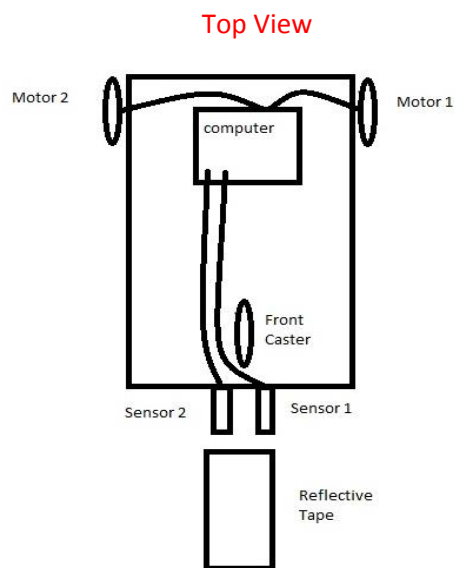


Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Come Follow Me Homework Handout **Answer Key**

Sketch a block diagram of a robot that has two motors, IR sensors and a computer to read and control circuits. The outputs from the IR sensor circuit will be read by the computer. You may use up to two sensors. Your robot must be designed to follow a piece of reflective tape along the floor. On your diagram, show a sketch of the frame of the robot, the computer, the two motors and the sensors. Number your sensors and motors and show lines connecting the different blocks. With as much detail as you can, explain how your robot follows the line.



Sensors 1 and 2 read reflective values off of the reflective tape below them. They tie directly to the inputs on the computer. When both sensors are detecting the tape below, both motors are turning and the robot moves straight ahead. If the robot veers off course, then one of the sensors goes past the edge of the reflective tape; this is detected by the software and the output from the computer shuts off the appropriate motor to steer the robot back on course. For example, if sensor 1 goes off the reflective tape, then motor 2 stops to turn the robot back toward the tape.