Robotics Education Project
Student Robotics Challenge
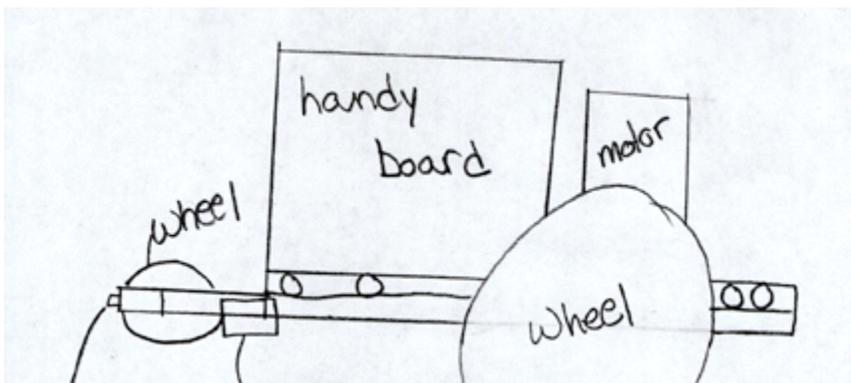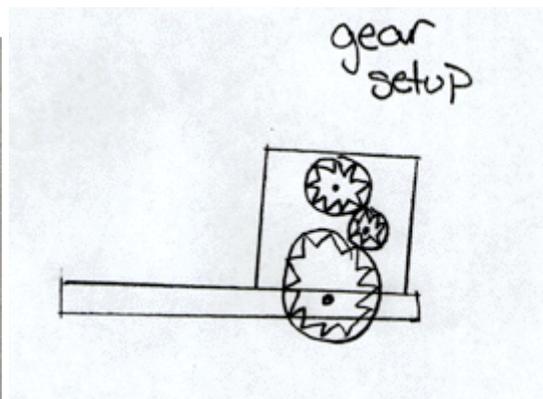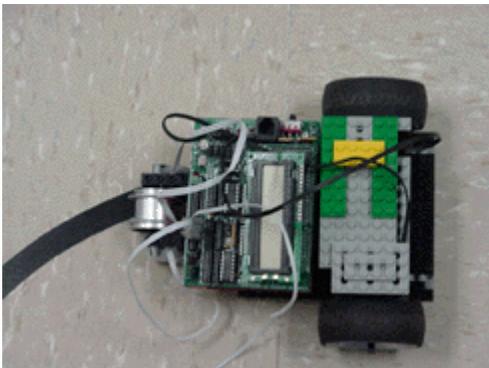
Wayne High School
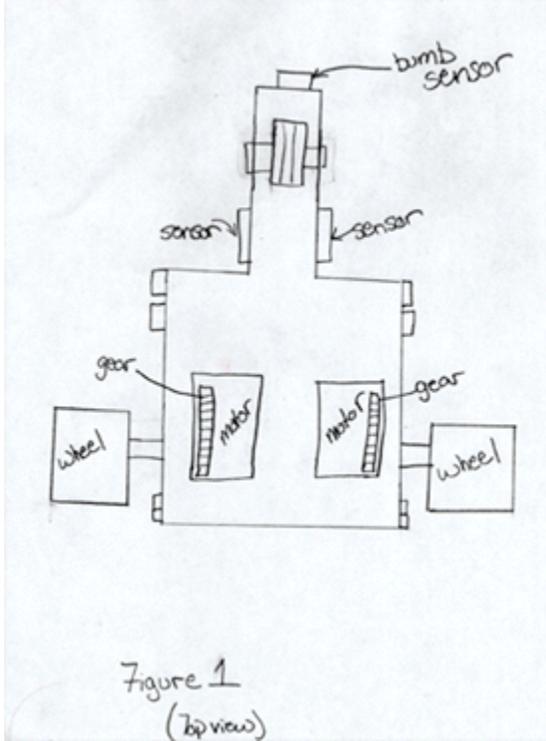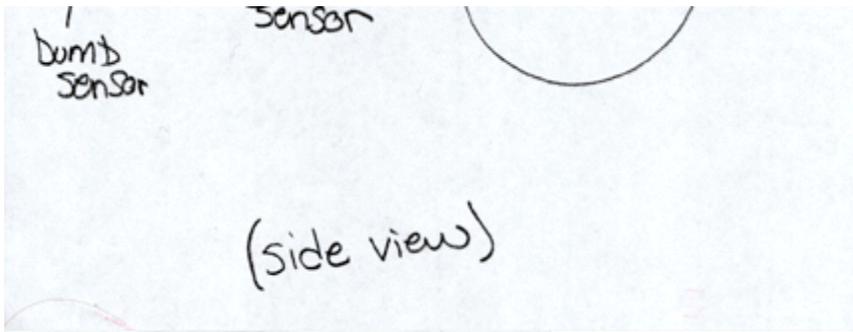
Wayne, Oklahoma

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The robot that we constructed is designed with an almost solid frame. There is enough room for the motors and the gears to run (shown in figure 1). The handy board is set in front of the two motors and behind the single front wheel. The two line sensors are to be placed on the right and the left of the front wheel.

The program is written through values that go to the two sensors that can tell the difference between black and white. The greater values are black and the lesser values are white . When one sensor reads black the program slows down one of the motors in order for it to turn. When both values are the same the motors are told to stay at full speed in order for the robot to go straight. A timer program is also being used to time the robot for the length of the track. The robot is calibrated by pressing start when the light is on and stop when the light is off. The robot starts and the timer begins when the light is turned back on. It will end once the bumb sensor has been touched. By using these different types of programming methods we were able to have the robot to run the required track in six seconds.

bumb
Sensor

Sensor

(side view)

bumb
sensor

sensor

sensor

gear

motor

motor

gear

wheel

wheel

Figure 1
(top view)

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