- 1. Get two pieces of wood.
- 2. Cut one inch two times off the same board.
- 3. Screw the eight Dry Wall Screws into the wood.
- 4. Mark a hole the bolt.
- 5. Drill a hole at the bottom, with a spade bit, for the nut to go in.
- 6. Drill a hole for the bolt.
- 7. Get a nut and washer.
- 8. Put the bolt through the wood and crank it down.
- 9. Use a level to make sure the bolt is plumb.
- 10. Attach the cardboard tube to the metal bolt with twist ties.
- 11. Get 3x12 inches of carpet.
- 12. Cut the carpet in half.
- **13.** Cut a circle from the carpet.
- 14. Get rid of the other half.
- 15. Screw the carpet to the wood.
- 16. Make 3 marks at zero feet, two feet, and 5 feet.
- 17. Drill three holes for the LED and light sensor.
- 18. Mark Ofeet, 1foot, 2feet, 3feet, 4feet, and 5feet and all of the inches. With marker.
- **19.** Put the sensor and LED in the three holes and use rubber-bands to hold then in place.
- 20. Put the wires that connect to the tube, to the circuit.
- **21.** Connect the tube to the threaded rod.
- 22. Make the program. "Look at my listing"
- 23. Test the program for any problems. If there are any problems then fix them. Double check the distances between sensors. ( the photo transistor side).
- 24. When all the problems are fixed then compile the program.

You should compile the program because, it will see the ball, and run fester.

- 25. You run the program. Then hit 3 (when it asks ;How many sec. Between BTN. press?; you type 75, then get a stop watch and hit it when you the BTN, then you hit the 2<sup>nd</sup> BTN at any time between 1-75 sec., and then hit the 3<sup>rd</sup> BTN at 75 sec.).
- 26. Do the ball drop a couple times with a couple different things.