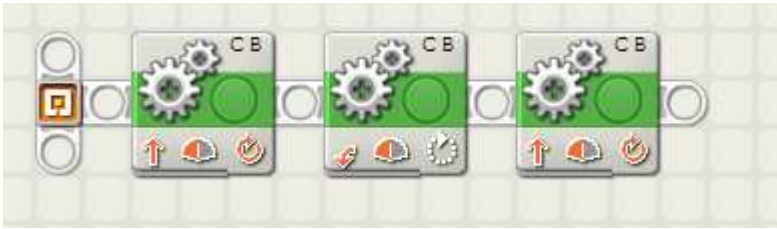


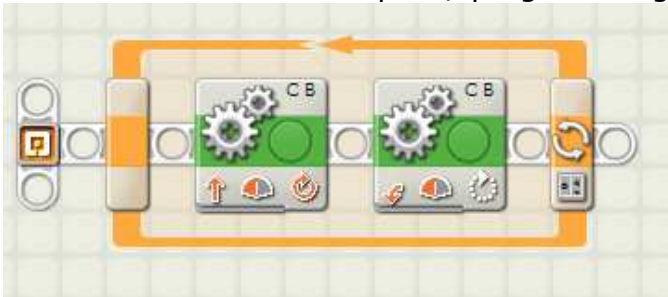
### Task #1 - Basic movement



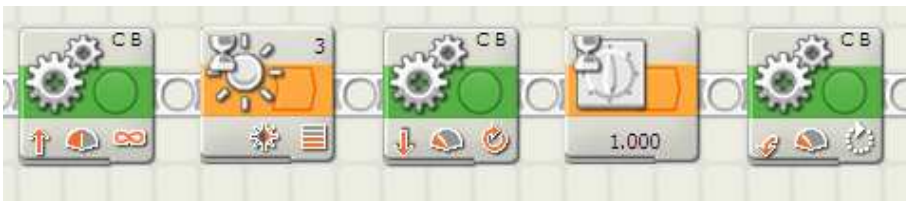
### Task #2 - Geometric Shape w/out programming loops



### Task #3 - Geometric Shape w/ programming loops



### Task #4 - Maze - using light sensor



#### Task 4 – programmed rotation distances:



- 1) How difficult was it to learn your robot's software?
- 2) What skills do you feel were necessary for you to be successful in completing the tasks?
- 3) What types of learning took place as a result of the programming tasks?
- 4) What educational standards would this activity meet?

I did not find it that difficult to learn the robot's basic software between the tutorials that the software provides and the ortop website tutorials. Those Camtasia videos were really useful, especially with his narration. There were several tips that he went through that were really helpful, like how to view what is on the robot and how to calibrate.

The skills necessary to be successful:

- learn to program the robot
- manage technical skills of calibrating and downloading program
- flowchart (at least mentally) the steps required
- testing and modifying - iterative

The most important thing for me to learn was the necessity to make attempts, download, test and try again. I learned a lot about how the robot and programmed worked by going through these steps over and over. I didn't spend a lot of time or thought figuring out which way to program the turn or movement – I just tried it and proceeded if it was ok or changed it if I needed to change it. I most applied the math concepts we learned in the last activity to this activity and integrated it into the programming. I measured the distances, converted to metric, calculated rotations based on distance of 18 cm per rotation and programmed and tested from there. The math concepts, planning, basic flowcharting, and documentation skills all meet curriculum requirements.

At one point in time, I zapped my computer with a static charge and the computer went off. It blew the program. I couldn't get it to work at all. I even deleted it and uploaded the one from the robot but that still wouldn't work. I needed to rewrite it. That was a bummer and if it had been a complex program, I would have been really disappointed. Lesson learned – if students get to the point of creating complex programs, make sure you have good offline backups!