

Ian Johnston (s1018358), Contributions to SDP group 8 for milestone 2

For this milestone I have:

- Played around with spinner designs, initially using foam piping but this didn't have the friction required to backspin the ball, lots of different items have been tried to improve the friction (from Velcro to physio theraband). Currently have sandpaper covering the pipe and it is backspinning the ball really well but still not found a way to implement a spiral (or something else!) for great ball control yet.
- Tried to build a fast lightweight holonomic design (i.e. Not using the multiplexer and thus not having the weight of the battery pack) but failed as I was unable to get around the problem of only having 3 motor ports.
- Turned this into more usual holonomic design with a multiplexer (adding alot of weight from a battery pack). This design is currently poor, needs to be reinforced and wheels could be moved farther apart for balance with the extra weight, also need to look into using 2 nxt servo motors to make it easier to control.
- modified milestone 1 robot to be used as a reliable robot to perform the tasks for milestone 2, This could have been done sooner which would have given the navigation team more time to calibrate there code for the milestone. (This robot was only given to the nav team the Friday before the milestone, as the idea of using it wasn't thought of until then).

I feel while I have put a considerable amount of time into it, I haven't achieved as much as I would have hoped for this milestone and more importantly have yet to produce a final robot for the team. I feel a 3 would be a fair score for me.