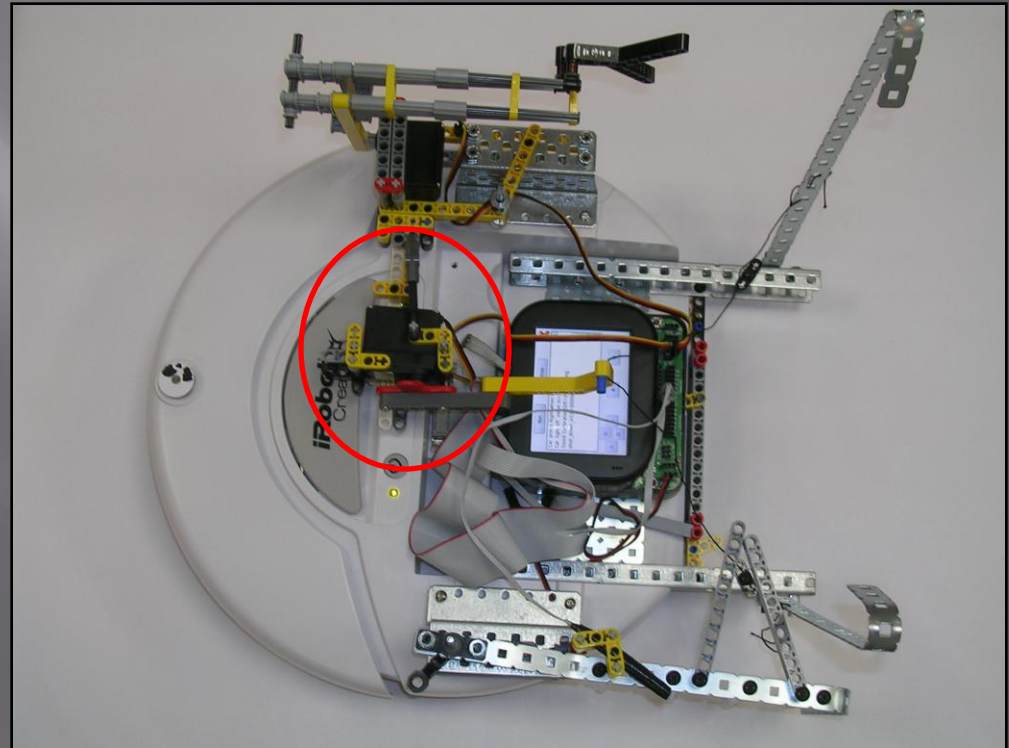


EVOLUTION OF OUR SYSTEM DESIGNS

In the past couple weeks we made key changes to both our Create and CBC. We added an new motor to the Create to enhance the bulldozer that collects fuel storage containers. To the CBC we added a sweeper arm to knock objects out of its way when going to block the opponent's slope and peak. We also added a ramp to the CBC's base in order to allow it to easily cross the PVC pipe. All of these changes are minor, but greatly enhance the overall productivity of our Create and CBC.

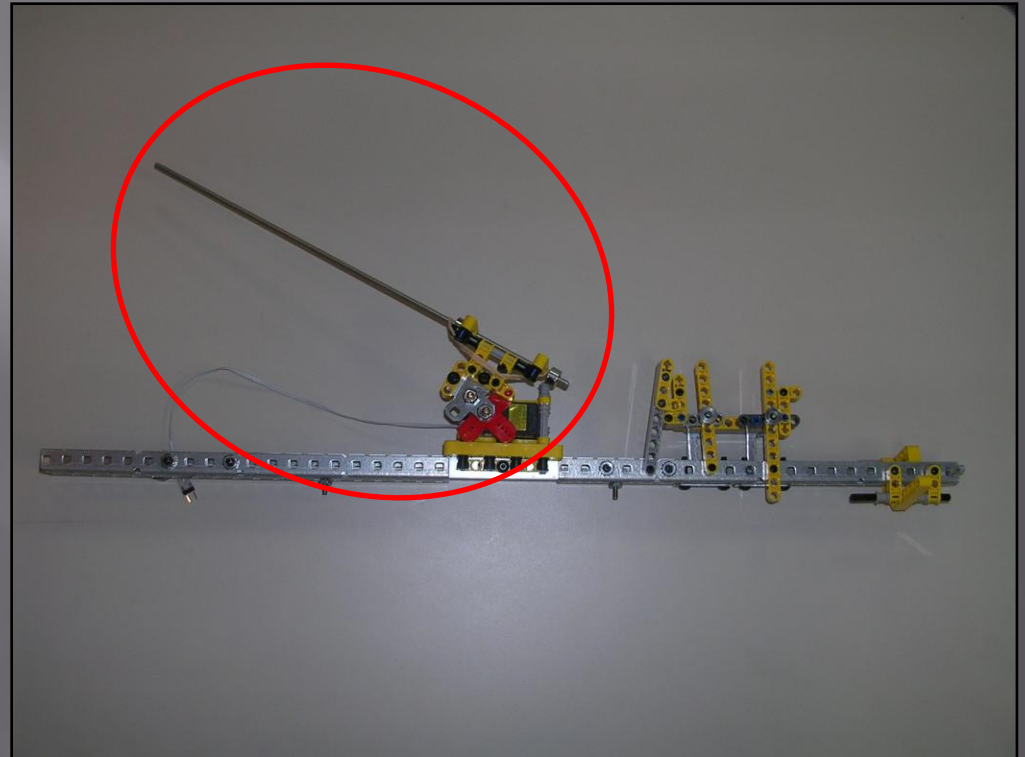
Motor Added to Create

To the Create we added an additional motor in order to enhance the bulldozer we had constructed in the previous sessions. This motor enables the bulldozer arms (made out of long metal bars) to be raised up and down. The bulldozer's initial purpose of collecting the fuel storage containers (cups) and water, if a ball was to unintentionally roll into it, still remains. However, the motor allows the arms to move vertically, while still holding onto any objects, which permits the Create as a whole to maneuver around the board more easily. This solve the problem we were previously facing in which the bulldozer was knocking into everything on the board.



Sweeper Arm on CBC

We added a sweeper arm on the blocker of the CBC. A coupler and a wind turbine were constantly getting in the way of the CBC when going to block the opponent's slope and peak. The sweeper arm knocks the coupler along with the wind turbine out of the way so it can successfully prevent the opponent from scoring.



Ramp on CBC Base

We added a small piece to the metal blocker of the CBC in order to enable it to smoothly cross over the PVC pipe. However, this piece was then getting caught in between the pipe and the base. To fix this problem, we added a ramp to the base. This ramp starts in an upward position, and when the CBC moves slightly forward it is knocked down. The ramp then provides the newly added piece of the CBC a place to slide down the PVC.

