Roller or Plastic Intake (Dec 13, 2017)

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| Roller Intake | Plastic Intake |
|  | C:\Users\shimin.feng\Desktop\Vex programmings\7700R 003.JPG |
| Advantage | Advantage |
| * Able to stack really high * More reliable (common design) * More control for the driver * Able to do driver load and stack on stationary goals reliably * Easier to convert (from the existing robot) | * Very efficient * Easier to control (no intake function) * Easier to maintenance. * Fast, and light * Able to function even with broken motors. |
| Disadvantage | Disadvantage |
| * May be slower than the plastic intake when stacking on the mobile goals * If the roller motor malfunctions, the match is lost * Harder to program. (PID for the roller?) * Heavier and overall larger robot. | * Cannot stack on the stationary goal nor easily do the driver load * Less control for the driver. (ex. Cannot let go of the cone once it is hooked up to it) * Relies on the partner to do the driver load and stationary goal |

Strategy (December 13, 2017) (Assuming the alliance robot is the same as ours and no high stack bonus is awarded)

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| Phase | Robot 1 | Robot 2 | Points |
| Auto | Grab the mobile goal and move it to the 20 point zone with a cone on it | grab the mobile goal and move it to the 5 point zone with a cone on it | 29 points |
| Driver 1st 45 sec | Grab a mobile goal and make a stack of 12-15 using the field cones and move it to the 10 point zone | Grab the five point mobile goal and make a stack of 12 using field cones | 68-80 points |
| Driver 2nd 30 sec | Finish the previous task then  Grab a second mobile goal make a stack of 12 on it using driver load | Transfer 6-8 of those cones to the stationary goal | 24 |
| Driver last 30 sec | move it to the 10 point zone as well | Stack as many cones on the stationary goal as possible and move it to the 10 point zone | 30 |

Goal: Total at approximately 130 – 140 points under ideal circumstance