Dual Claw		**Horizontal Intake**		**Rollers Claw**		**Rotating Gripper**	
Pros	Cons	Pros	Cons	Pros	Cons	Pros	Cons
easy placement on the grid. easy to collect the cones. can center cones.	can't collect cones from every angle. can be heavy collection outside the frame needs another system. hard to collect cubes	easy to aim. "touch it - own it". fastest way to collect cubes. can center the game piece. we have experience building	can't collect cones heavy (can be good sometimes because it causes lower center of mass). can't be placed on the grid. can't know the orientation of the game piece in the robot. can accidentally collect more than 1 piece	can collect upright cones. can collect cubes from every direction. "touch it- own it".	relatively heavy. can't place the game piece on the grid. hard to aim for the game piece, needs high and very precise moves. placement of the cone relative to the robot, close to the robot and not the end of the gripper. can catch cones from every direction.	can collect all game pieces, including lying cones. passively straighten the piece, doesn't need a motor to do this action. light weight easy and fast placement on the grid. center the game piece to one side or middle.	not "touch it - own it". need to stop and grab the piece. needs pneumatics can be hard to catch the game piece, and need high precision to collect the pieces.

Improvement: collection from different angles. check with different drivetrain's speed.	Improvement: need to collect cones as well. find a way to know or change the orientation of the piece.	Improvement: try to make it work from different angles working on precision	Improvement: need to be easier to collect and less precision.

Pros & Cons of using Two Systems on The Robot

Pros	Cons
less restriction on each system more promising prototypes (better way to reach this goal) can still operate and support the team when one system fails placing system can be less "hard" or less resistance lower the center of mass	needs a funnel or a way to change the orientation of the piece harder geometrically (more planning, integration, thx more space on the robot). hard for the Software team :(