

## PhyXTGears Brainstorming Session #1 – 1/8/2006

<u>Name</u>	<u>Idea#</u>	<u>Highlights</u>
Jackson		shoot high with a spring-loaded device shoot low using paddle/guidance tube
Morgan	(R2D2)	brush/paddles at base to collect balls driven to top turret with ball screw upper turret with pneumatic plunger gun lower turret with pneumatic plunger gun sort upper or lower
Ashley		defensive blocking with a fish net to steal balls
Alex	1. Spinner: 2. Boot: 3. Snake: 4. Swan:	expanding paddles on a circular, rotating base to collect and shoot simultaneously fire 10 balls with catapult on a spinning wheel to kick ball Collect balls into a mesh that trails the bot two large wings that fold in/out to scoop balls while moving back up to lower goal to discharge could use a cannon for high goal wings can block
Kevin	1. 2. 3.	Catapult with plow type scoop Plow scoop with large bin tilt floor to gravity Catapult with auto-feed mechanism (indexing table) balls stored in tubes
Nathan	1. Crab drive 2. Same as #1 but 3-wheel base	individual drive wheels brush collector camera wheel throws base on modulating gun basket that feeds wheel to throw front omni wheel back wheels driven
Peter		Max base (W x L) 2 wheels in center with balls in center of front and back basket with agitator pneumatic cannon (like paint ball gun)
Brad		Base with height to clear 1' x 30 base 2 wheels driven by ea other, one to shoot high, one to shoot low basket gravity feeds in front of low goal for autonomous use conveyor belts to refill basket scoop front and back with plow to direct to conveyor

Matt	<ul style="list-style-type: none"> <li>use a trap door to collect balls from base</li> <li>2 individually driven wheels</li> <li>camera to find target</li> <li>open trap gravity feed</li> <li>use bumpers</li> <li>catapult that expands to block</li> </ul>
Tyler	<ul style="list-style-type: none"> <li>spinning brushes to collect balls front and back</li> <li>Shoot through sides or by reversing</li> <li>Wheels on outside of brushes</li> <li>Wheel thrower</li> </ul>
Kenny	<ul style="list-style-type: none"> <li>manually loaded catapult and/or can scoop</li> <li>Bumpers</li> </ul>
Brian Period	<ul style="list-style-type: none"> <li>1: dump 10 balls</li> <li>2: offensive – block/collect</li> <li style="padding-left: 20px;">defensive – human feed/ shoot</li> <li>3: offensive – dump /collect/dump</li> <li style="padding-left: 20px;">defensive – block/collect</li> <li>4: shoot</li>   <li>4 wheel steering</li> <li>higher suspension</li> <li>plate underneath to swing</li> <li>More (see notes from Brian)</li> </ul>
Big Brad	<ul style="list-style-type: none"> <li>scoop with 2 sprockets driving a chain to convey balls to top</li> <li>At top, balls would be forced to drop into a feed or basket or the shooter</li> <li>Doors to funnel balls to conveyor</li> <li>More (see notes from Brad)</li> </ul>
Rick	<ul style="list-style-type: none"> <li>strategy: focus on dumping at a fixed distance from goal</li> <li>Expand at bumper level to block</li> </ul>
Mike	<ul style="list-style-type: none"> <li>use camera to pin-point high target</li> <li>One operator</li> <li>Human player a must</li> <li>More (see notes from Mike)</li> </ul>
Mark	
Taylor	