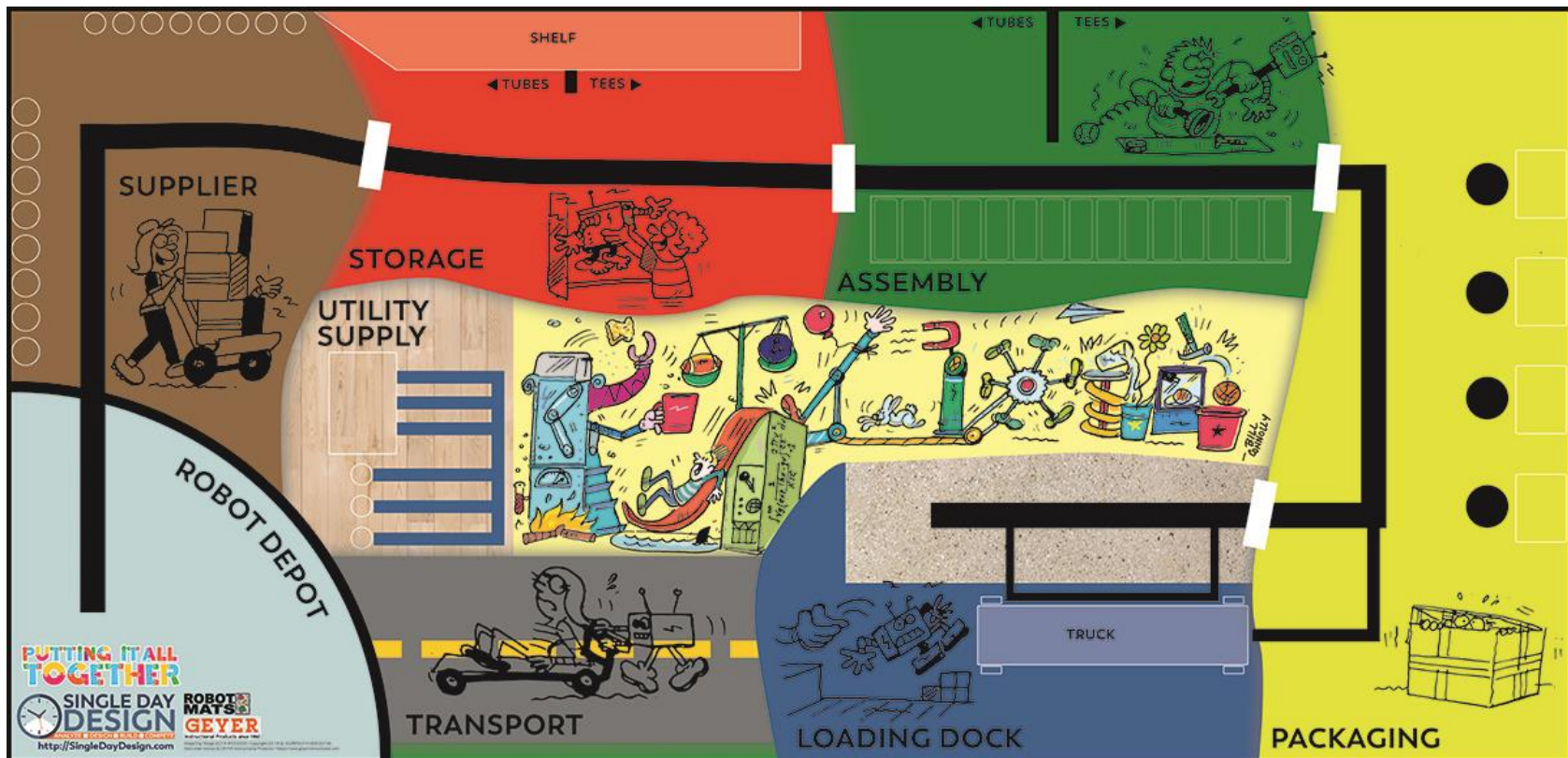




Scoring and Challenge Guide



In a Single Day Design event teams will see the challenge at 7:40a. They then have 4 hours to build and test a solution before competing in the afternoon for cash prizes. This year's game provides a challenge focusing on manufacturing processes. Teams will have to move items from the supplier, to the storage, to assembly, to packaging, to transportation and then drone delivery. The final challenge is to connect the utilities. All the challenge elements are common items found at a hardware store. These tasks serve to demonstrate the complexities of manufacturing and amazing process that produce trillions of well made, accurate items every day world-wide.



The Table







Scoring Details

Challenge	Comments	Scoring
	<p>Supplier You start with 8 tees and 8 tubes.</p>	<p>You get one point for each of these items moved to a zone. So if you just pushed the 16 items around the board you would get 16 points for each of the six zones or 96 points.</p>
	<p>Storage Delivered Move one or more of the 16 items into storage</p>	<p>STORAGE (RED ZONE) ___ OBJECTS in RED zone x 1 = _____ (max 16) ___ TUBES on SHELF in area x 5 = _____ ___ TEES on SHELF in area x 5 = _____ TOTAL RED ZONE _____</p>

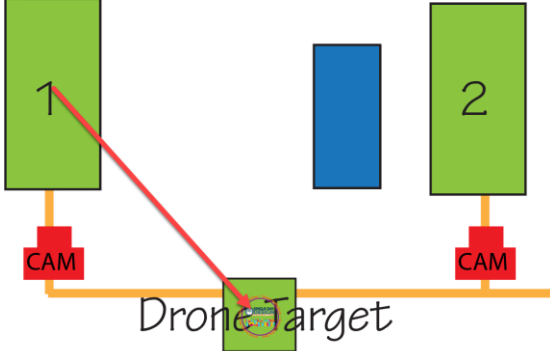
Challenge	Comments	Scoring
	<p>Storage shelved and sorted. Optionally shelf and sort them for additional points.</p>	<p>See above.</p>
	<p>Assembly delivered and sorted. Move one or more of the objects to storage. Optionally sort them for additional points.</p>	<p>ASSEMBLY (GREEN ZONE) ___ OBJECTS in GREEN zone x 1 = _____ (max 16) ___ TUBES SORTED x 10 = _____ ___ TEES SORTED x 10 = _____ ___ ASSEMBLED OBJECTS in AREA x 20 = _____ TOTAL GREEN ZONE _____</p>

Challenge	Comments	Scoring
	<p>Products assembled Assemble one or more products by placing a T into the tube. Finished products must be upright.</p>	<p>See above.</p>
	<p>Deliver to Packaging Move one or more of your items and finished products into the packaging area.</p>	<p>PACKAGING (YELLOW ZONE) ___ OBJECTS in YELLOW zone x 1 = _____ (max 16) ___ ASSEMBLIES in YELLOW zone x 30 = _____ ___ FINISHED PACKAGES in YELLOW zone x 40 = _____ TOTAL YELLOW ZONE _____</p>

Challenge	Comments	Scoring
	<p>Packaging Completed Place one or more finished products in the package boxes. A completed package contains two products.</p>	<p>See above.</p>
	<p>In transportation. Move one or more of your packaged products to the transportation zone. Place up to four packages on the truck.</p>	<p>LOADING DOCK (BLUE ZONE) ___ OBJECTS in BLUE zone x 1 = _____ (max 16) ___ PACKAGES in BLUE zone x 40 = _____ ___ PACKAGES on TRUCK x 80 = _____ TOTAL BLUE ZONE _____</p>

Challenge	Comments	Scoring
	<p>Move through transportation Use your robot to move the truck through the transportation zone.</p>	<p>TRANSPORT (GRAY ZONE) ___ OBJECTS THROUGH zone x 1 = _____ (max 16) ___ TRUCK THROUGH zone = 100 TOTAL TRANSPORT _____</p>
	<p>Delivered to depot Deliver your objects to the depot.</p>	<p>ROBOT DEPOT ___ OBJECTS in DEPOT zone x 1 = _____ (max 16) ___ PACKAGES on TRUCK in DEPOT x 150 = _____ TOTAL DEPOT _____</p>

Challenge	Comments	Scoring
	<p>Connected utilities.</p>	<p>UTILITY SUPPLY ___ SUPPLY 1 CONNECTED = 75 ___ SUPPLY 2 CONNECTED = 150 ___ SUPPLY 3 CONNECTED = 225 TOTAL UTILITIES _____</p>
	<p>Utilities connected.</p>	<p>See above.</p>

Challenge	Comments	Scoring
	<p>Drone Delivery Fly your drone from the center of your table and land on the drone target up to three times during the last minute of the round.</p>	<p>DRONE DELIVERY _____ Trips at 75 points (max 3) TOTAL DRONE DELIVERY _____</p>