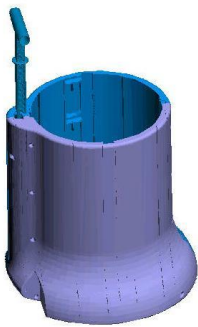


Another APP Prototyping Success Story *UPBucket*

Two and a half years ago Troy Carroll was pitching to one of his four sons in preparation for their little league world series tournament. Carroll was practicing like any other father with a five gallon bucket of balls, bending over with each pitch to retrieve another ball from the bucket. After several hours of practicing and bending over, his back was aching. It occurred to him something needed to be invented to alleviate this issue and so the process of designing what would become known as the UPBucket began.

Carroll teamed up with designer Myles Christianson of Idea Zone to develop the design for the UPBucket. After five months of design changes, Christianson and Carroll had a design they thought would work. The UPBucket design was comprised of an exterior casing on wheels with a retractable handle. A six gallon bucket would be held inside the exterior casing which had four notches that would allow the bucket to be raised or lowered to four different heights. Once the design was ready, Carroll began the search for a prototyping service provider to produce the initial prototype.



American Precision Prototyping (APP) was chosen for this project by the commendation of Christiansen who already had an established relationship with APP.

Carroll needed a process that would allow for the model to be built in one piece and a material that would enable him to perform testing. Carroll's account manager recommended the Stereolithography (SLA[®]) process, and Accura Xtreme Plastic. The SLA[®]-5000 from 3D Systems can produce models up to 24+in height in one piece which was ideal for this project because it would allow the exterior casing to be prototyped in full halves and would yield a model with superior surface finish for the demonstration to potential buyers. Accura[®] Xtreme Plastic, also produced by 3D Systems, is the newest SL resin on the market and provides superior durability and strength which would allow Carroll to perform repeated functional testing in front of potential buyers ensuring the design was good for final production.



The external casing, built in two complete halves, was completed in one build lasting approximately eighty hours. The length of the build was driven mainly by the height of the two halves which was 22+ tall. Each half measured 16+in width, taking up almost the entire build envelope of the machine. These two halves would snap together with the handle, also produced in Xtreme, inserted into the assembly. The six gallon bucket and lid would not need to be prototyped but would be purchased from a third party supplier.



The UPBucket was designed with four notches on the interior of the casing which would allow the six gallon bucket to be raised and held at various heights. This design would remedy the aches and pains associated with bending over repeatedly during pitching or any other task that required a repetitive bending action like washing your car, painting and various other tasks. The tilt handle and wheels would make transportation of a full bucket easier than the traditional method of carrying via the metal bucket handle.



Once the prototype was completed, it was tested successfully and taken to various organizations for demonstration. Carroll has already secured orders from seventeen Major League Baseball teams and various national sporting goods chains. The UPBucket will go into production around August 2008 and should be on store shelves by late October. Units will be available in over eight colors and for those sports fanatics, the UPBucket will sporting colors and logos for various professional sporting teams.