DURHAM COLLEGE
SUCCESS MATTERS

Office of Research Services & Innovation

The Pool Extractor

INDUSTRY PARTNER: A.B.D. SOLAR POWER POOL TOOLS

Start date: June 1, 2010
End date: October 4, 2010
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A.B.D. Solar Power Pool Tools approached the Office of Research Services & Innovation at Durham College about the creation of a device to eliminate the debris that falls into above-ground pools and accumulates inside the skimmer basket. The industry partner required expertise in development of a more robust, self-maintained unit that would eliminate the need for pool owners to skim their pools and empty their pool skimmer baskets.

The project team has worked diligently in designing, developing and refining this device that features a conveyor belt with perforations that allow water to pass through it. The belt travels in ascending and descending paths with the lower portion immersed in water to skim debris floating on the surface. The debris is then carried upward by the belt and separated at its upper end.

Any debris that does not separate from the belt is removed by a brush which contacts the belt as it travels in the descending path. The extractor continually removes debris that would normally move into the skimmer basket through the normal pumping action of the pool pump system.

The pool extractor also incorporates a solar panel application to ensure a steady feed of electricity to power the application and a battery back-up system ensures continuous ability to function during times of limited sunlight.

The completed prototype was also tested on above-ground pools in a controlled-load testing environment to ensure it is market-ready and adheres to the Canadian Standards Association for the safety of recreational pool assistive devices.

Result: A fully functional solar pool cleaning device prototype that works independent of an operator once turned on. This prototype is now ready to take to large scale manufacturers for commercialization and dissemination.

The pool extractor research project received funding from the Colleges Ontario Network for Industry Innovation.