As a top Canadian chef, Brad Long is no stranger to innovation. Having carved out a long career that focuses on eating well yet sustainably, Long has served up fare for a wide range of palates, varying from the NBA and NHL teams housed at the Air Canada Centre, a complete retool of the CN Tower’s iconic 360° Restaurant, and a place as a featured chef on Food Network favourite Restaurant Makeover.

In 2011, Long added entrepreneur to his resume: he’s the head chef and owner of Café Belong and Belong Catering, based out of Evergreen Brickworks, a community environmental centre located in Toronto’s Don Valley. There, he has created an eatery fueled by sustainability: food is local and organic, with a mission statement to support sustainable farming and livestock practices.

But as a successful catering business that caters thousands of meals each year, he noticed that the potential for waste was very high in the industry—while the plastic single serving cups and utensils are useful in the moment, they can live on for decades in landfills. Factor in that a large portion of conventional single serve food ware materials are derived from petroleum, a limited (and often imported) natural resource, and you have a recipe for impeding eco-disaster.

Café Belong wanted to make the switch to compostable, bio-based food service ware, creating an alternative to disposable plastic. The idea? Fully edible, biodegradable serving cups, made from plant-based materials, meaning less waste and more nourishment.

Café Belong came to George Brown College’s Centre for Construction and Engineering Technologies to find a way to make this idea reality. Principal Investigators Philip Perivolaris, with support from Jamie McIntyre, recruited three Mechanical Engineering students—John-Allan Ellingson, Ryan Billinger, and Ryan Cain—to begin developing the prototype for a heat-setting mold device that Café Belong could use to produce their serving cups as needed.

The result? A sleek custom-built, spring-loaded device able to compress the edible materials into single-serving cups in one press. The design has an interchangeable component to allow for different thicknesses, and is completely reusable. The already green-minded company now has a competitive advantage over its competitors and a renewed commitment to sustainability.

Next, Café Belong is looking to work with the Food Innovation & Research Studio (FIRSt) to perfect the formulation for the cups, potentially focusing on having vegan and gluten-free options as well. All the ingredients for an innovative recipe for change are in place, giving Café Belong the chance to reach the catering industry and beyond.