**Wheat Montana Pan Clamp**

**Background**

Wheat Montana is a large fully integrated farm-to-table business focusing on production and processing of wheat: The operation provides bread and grain products to Montana and neighboring states. The Wheat Montana bakery, located just west of Three Forks, produces thousands of loaves of bread, buns, rolls, and other baked products every day.

In the bakery, factory automation combines with human baking craftsmanship to bring products to market. The bakery contains numerous conveyors, logic controllers, pneumatic rams and cylinders, vacuum systems, and electric motors to perform baking/cutting/slicing/bagging/packaging operations.

**Project**

The project at hand is the design of a versatile, efficient, and robust food-safe clamping device to restrain bread pans on a conveyer line during one phase of the processing operation. The device must be compatible with multiple pan dimensions, operate seamlessly in the food processing environment, and must be powered using existing available (pneumatic/electrical) energy sources.

Students will work with the plant operators to define the requirements, design and optimize the system, and fabricate & incorporate the finished prototype into the operation.

Ref: [http://www.wheatmontana.com/](http://www.wheatmontana.com/)