

# Devils Backbone Gantry Design and Analysis

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The brewing process at Devils Backbone Brewing Company involves the use of a centrifugal separator to remove all solids from the final beer. To avoid clogging and contamination, the separator is disassembled and thoroughly cleaned. The current disassembly process involves using a forklift to remove a 2500 pound hood off the separator and transport it nine feet to a nearby cleaning station. The design team from VMI was tasked with designing a

## Figure 2: Double Track Gantry Design

Several iterations of the frame and trolley were examined in the design process. As the different options were explored, original thoughts and concepts were modified to accommodate