**Television Ceiling mount**

Design a TV mount that attaches to the ceiling that allows a TV to be flipped up when not in use. The mount should fit TV's from 42 to 70 inches,and must fit the VESA mounting patterns (w)200mm x (h)200mm up to (w)600mm x (h)400mm found on the back of the TV's. The device should be able to hold 100 lbs when flipped up, and have the ability to rotate once in the down position. The mount should be manually operated, not motorized. Must be operated from the floor with 8-10 ft ceiling height. The distance from ceiling to top of TV must be adjustable, and designed for home use to easily mount to a wood frame house.  
  
Cost is a big consideration. There are already expensive products that do this but they are motorized. Total manufacturing/packaging cost up to $120 per unit in quantity. The manufacturing processes we normally use are laser cut and bent mild steel, CNC machining, and CNC Turning of mild steel and aluminum. Design goals include: Minimize welding, part count, assembly time, and total product weight. Maximize use of off the shelf components.