Bracket Tutorial Part 2: Analyze the bracket for strength



**Tip:** In a real world scenario, you would need the dimensions, weight, and Center of Gravity of the cab to do a free-body diagram. This exercise does not cover this procedure.

**Task 1**: Simulate the static weight of the cab:

* Apply a Fixed constraint to the bottom face of the mounting bracket.
* Apply a Bearing Load to the inner face of the tube in the negative Z direction (assuming Z is up.)
	+ The magnitude of the Bearing Load depends on the weight of the cab (assume 4000 lbs). The Bearing Load would be ¼ of that or 1000 lbs. (This exercise assumes the cab weight is evenly distributed to all four cab mounting brackets).

**Task 2**: Simulate the Loader driving over rough terrain:

* Add a horizontal force to one of the end faces of the tube. Use a rough guess of 500 lbs.