

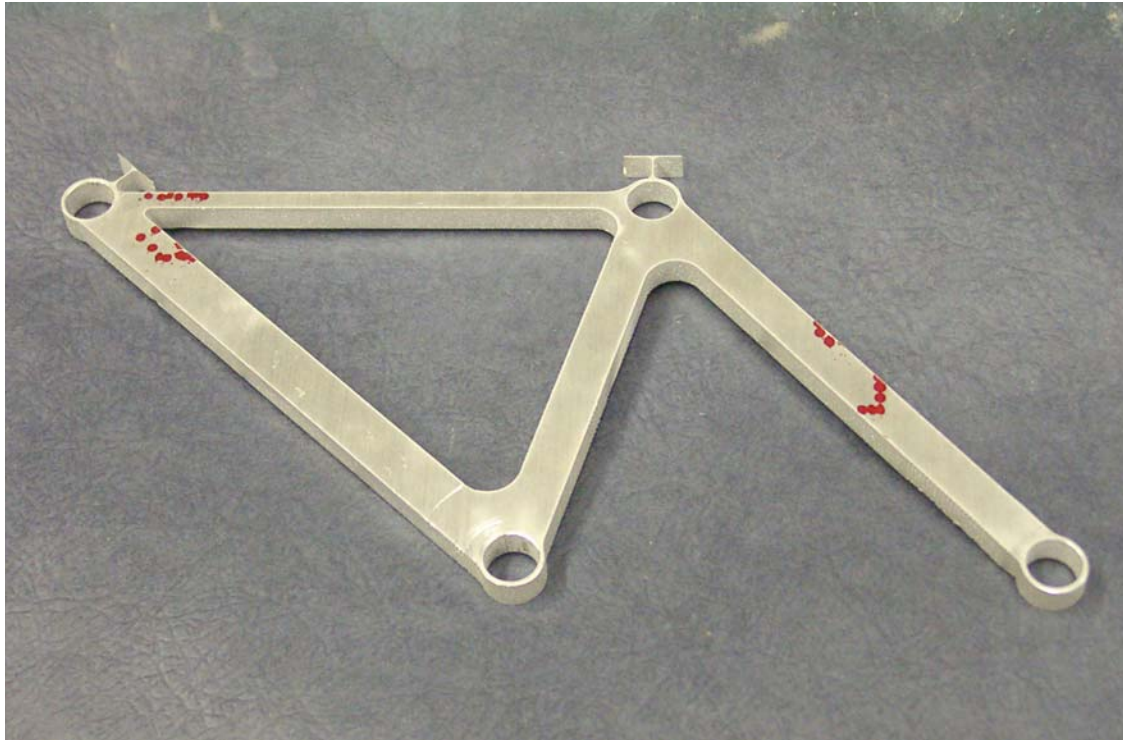
# Team 4- VeloCity

*By Greg Mark and Chris Voekler*



Constraint	Cost
Optimize	Mass
Accept	Performance

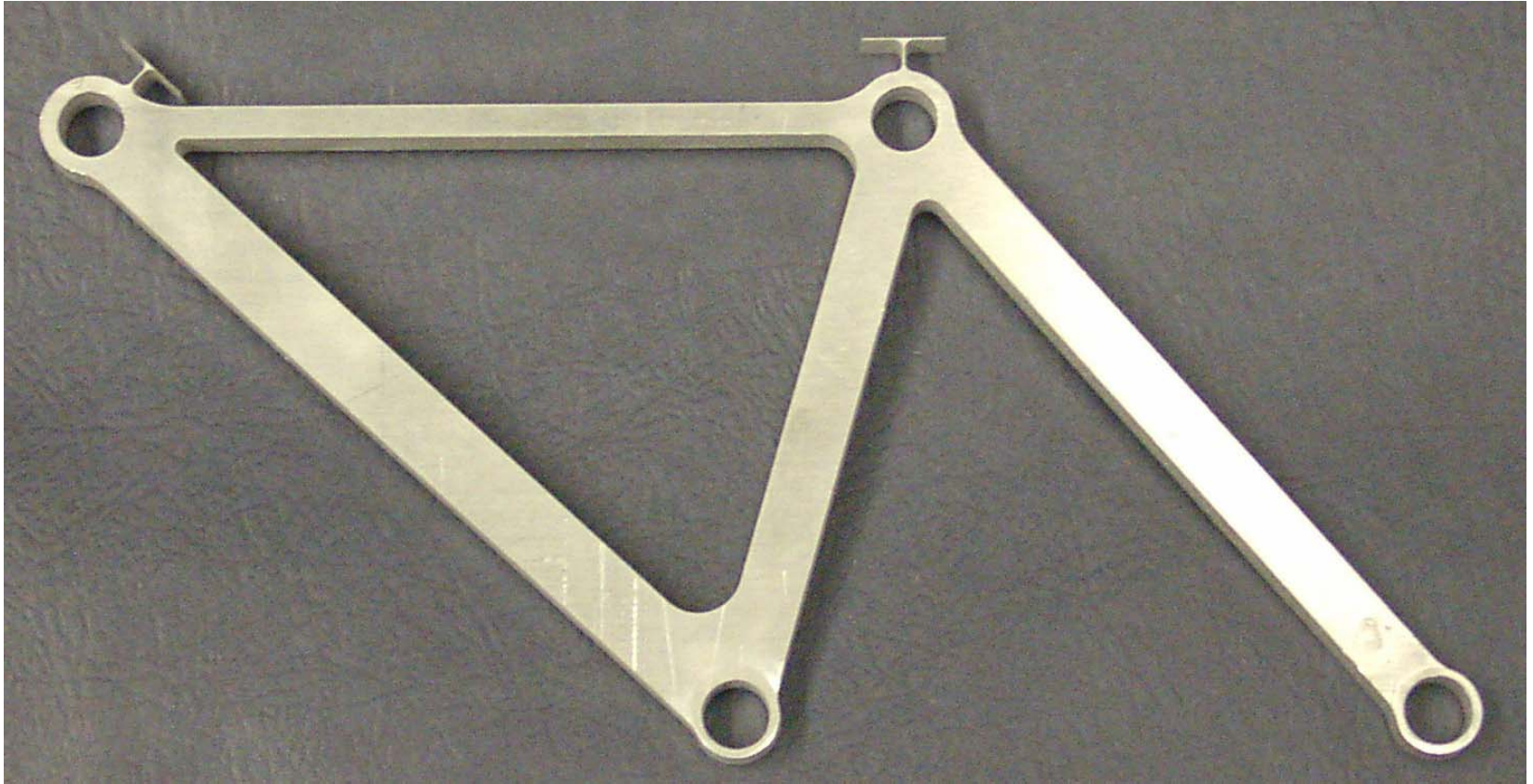
# Version 1



- Tabs

- Allow measurement of displacement
- Not in production frame
- Minimal effect on strength

# Version 2



- Larger diameter Top Tube for uniform strain
- Increased thickness of loading points
- Increased fillet and circle radii to minimize cost

# RESULTS

	Requirements	V1 – predicted	V1 – tested	V2 – predicted	V2 - actual
Cost	<b>\$4.2</b>	\$4.76/ \$4.20		\$4.73/ \$4.17	
Mass	<b>.18 lb</b>	.15 lb	.150 lb	.16 lb	.156 lb
Disp1	<b>.071 mm</b>	.034 mm	<b>.879 mm</b>	.025 mm	<b>.351 mm</b>
Disp2	<b>.011 mm</b>	.010 mm	<b>.065 mm</b>	.003 mm	<b>.053 mm</b>
Freq	<b>421.5 Hz</b>		456 Hz	433 Hz	438 Hz