

MECHENG 731 Project B

Physical test results for the 2016 bracket design

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Two "identical" instances of the 2016 bracket design (geometry provided as STEP file) were machined from polycarbonate sheet using the same machining centre and g code. They were each tested on the same apparatus you will use, under the same loading conditions. The resisting force at the two specified displacements was measured:

Test 1 (Bracket 3):

At 1mm displacement of Pin D (up), resisting force = 3056N

At 1mm displacement of Pin D (down), resisting force = 3990N

Test 2 (Bracket 2):

At 1mm displacement of Pin D (up), resisting force = 3084N

At 1mm displacement of Pin D (down), resisting force = 3967N