

| Tower of Power Results                       |                |             |                       | Grade Categories | Max Measured Load (lb) | Max Calculated Load (lb)     | Average Calculated Load (lb) | Average Penalty (lb) | Max Penalty (lb)     |                                   |
|--|----------------|-------------|-----------------------|------------------|------------------------|------------------------------|------------------------------|----------------------|----------------------|-----------------------------------|
| 2018 Engineers Week Student Competition Rest |                |             |                       | 1 to 3           | N/A                    | N/A                          | N/A                          | N/A                  | N/A                  |                                   |
| 17 February - UAA School of Engineering      |                |             |                       | 4 to 6           | 986.7                  | 986.7                        | 986.7                        | N/A                  | N/A                  |                                   |
|  |                |             |                       | 7 to 8           | 2014                   | 1891.0                       | 299.9                        | 623.2                | 1863.2               |                                   |
|  |                |             |                       | 9 to 12          | 182                    | 182.0                        | 182.0                        | N/A                  | N/A                  |                                   |
| Index  | Student Number | Grade Group | Name                  | Height (in)      | Mass (g)               | Measured Ultimate Load (lbs) | Measured Ultimate Load (g)   | Efficiency (g/g)     | Calculated Load (lb) | Ranking & Notes                   |
| 9  | Gavin #23      | 4 to 6      | Gavin Gingrich        | 17 3/8           | 61.3                   | 986.7                        | 447,559.23                   | 7,301.13             | 986.7                | 1st place                         |
| 47   | David 163      | 7 to 8      | David Soane           | 18               | 87.1                   | 1891                         | 857,742.47                   | 9,847.79             | 1891.0               | 1st place                         |
| 32   | Ethan 99       | 7 to 8      | Ethan Mandt           | 17 3/8           | 82.9                   | 1533                         | 695,356.54                   | 8,387.90             | 1533.0               | 2nd place                         |
| 46   | Juliana 162    | 7 to 8      | Juliana Soane         | 18               | 90.4                   | 867.7                        | 393,581.78                   | 4,112.54             | 842.1                | 3rd place, Weight penalty         |
| 42   | Mason 108      | 7 to 8      | Mason Ellis           | 18 3/8           | 92                     | 925.6                        | 419,844.76                   | 3,443.97             | 797.9                | Weight penalty                    |
| 11   | 24             | 7 to 8      | Joshua Van Tuil       | 18               | 90.3                   | 798                          | 361,966.42                   | 3,841.61             | 780.5                | Weight penalty                    |
| 16   | 61             | 7 to 8      | Evelyn Johnson        | 18               | 92.3                   | 871.8                        | 395,441.51                   | 3,107.48             | 736.5                | Weight penalty                    |
| 43   | Keyan 128      | 7 to 8      | Keyan Daryai          | 18               | 86.8                   | 697                          | 316,153.62                   | 3,642.32             | 697.0                |                                   |
| 34   | Parker 102     | 7 to 8      | Parker Neilson        | 20               | 84.2                   | 638.5                        | 289,618.49                   | 3,439.65             | 638.5                |                                   |
| 24   | Roan 75        | 7 to 8      | Roan Alfaio           | 20               | 62.2                   | 564.5                        | 256,052.68                   | 4,116.60             | 564.5                |                                   |
| 53   | Abby 143       | 7 to 8      | Abby Hahn             | 18               | 96.2                   | 863.4                        | 391,631.33                   | 1,775.20             | 558.4                | Weight penalty                    |
| 22   | 73             | 7 to 8      | Gabriel Crabtree      | 17.75            | 96.1                   | 790.9                        | 358,745.91                   | 1,657.56             | 517.8                | Weight penalty                    |
| 56   | Scott 172      | 7 to 8      | Scott Griffith        | 19.5             | 63.3                   | 504.2                        | 228,701.09                   | 3,612.97             | 504.2                |                                   |
| 6  | Allen #9       | 7 to 8      | Allen Malpaya         | 18 1/8           | 73.8                   | 360                          | 163,293.12                   | 2,212.64             | 360.0                |                                   |
| 18   | 60             | 7 to 8      | Camryn Stevens        | 18.5             | 55.7                   | 360                          | 163,293.12                   | 2,931.65             | 360.0                |                                   |
| 30   | Jessica 78     | 7 to 8      | Jessica Martinez      | 18 1/8           | 70.1                   | 355.4                        | 161,206.60                   | 2,299.67             | 355.4                |                                   |
| 27   | Kendrick 80    | 7 to 8      | Kendrick Smith-Thomas | 18               | 35.9                   | 349.1                        | 158,348.97                   | 4,410.83             | 349.1                |                                   |
| 39   | Rex 104        | 7 to 8      | Rex Hepner            | 18               | 52.7                   | 344.8                        | 156,398.52                   | 2,967.71             | 344.8                |                                   |
| 50   | Jett 114       | 7 to 8      | Jett Jarratt          | 17 7/8           | 40.1                   | 291.2                        | 132,085.99                   | 3,293.91             | 291.2                |                                   |
| 41   | Mikayla 107    | 7 to 8      | Mikayla Melgar        | 18               | 71                     | 281.9                        | 127,867.58                   | 1,800.95             | 281.9                |                                   |
| 4  | 8              | 7 to 8      | Matthew Long          | 18               | 36.8                   | 278                          | 126,098.58                   | 3,426.59             | 278.0                |                                   |
| 51   | Jack 145       | 7 to 8      | Jack McDade           | 18 1/8           | 58.5                   | 252.7                        | 114,622.70                   | 1,959.36             | 252.7                |                                   |
| 19   | 39             | 7 to 8      | Amelia Shen           | 18               | 32.4                   | 246.9                        | 111,991.86                   | 3,456.54             | 246.9                |                                   |
| 57   | David 188      | 7 to 8      | David Kim             | 18               | 33.4                   | 229                          | 103,872.57                   | 3,109.96             | 229.0                |                                   |
| 7  | Kyle #22       | 7 to 8      | Kyle Salanguit        | 18.5             | 122.9                  | 1664                         | 754,777.09                   | 163.98               | 228.5                | Weight penalty                    |
| 20   | 72             | 7 to 8      | Brian Akkaya          | 16 7/8           | 67.9                   | 188.7                        | 85,592.81                    | 1,260.57             | 188.7                |                                   |
| 12   | 27             | 7 to 8      | Perpetual Hipler      | 18.25            | 68                     | 178.4                        | 80,920.81                    | 1,190.01             | 178.4                |                                   |
| 23   | Richmar 74     | 7 to 8      | Richmar Mananquin     | 18               | 25.7                   | 176.4                        | 80,013.63                    | 3,113.37             | 176.4                |                                   |
| 54   | Sierra 170     | 7 to 8      | Sierra Mendenhall     | 17 7/8           | 41.7                   | 167.4                        | 75,931.30                    | 1,820.89             | 167.4                |                                   |
| 2  | MASON 7        | 7 to 8      | Mason Miller          | 18.25            | 87.7                   | 157.3                        | 71,350.02                    | 813.57               | 157.3                |                                   |
| 3  | 2              | 7 to 8      | Lucas Bernsten-Chu    | 18               | 136.5                  | 2014                         | 913,534.29                   | 62.38                | 150.8                | Weight penalty                    |
| 40   | Dakota 106     | 7 to 8      | Dakota Holland        | 18.5             | 104.7                  | 330                          | 149,685.36                   | 268.31               | 146.2                | Dowl does not fit, weight penalty |
| 55   | Sierra 170     | 7 to 8      | Sierra Mendenhall     | 17 7/8           | 39.8                   | 143.3                        | 64,999.73                    | 1,633.16             | 143.3                |                                   |
| 25   | Emma 76        | 7 to 8      | Emma Polsky           | 20               | 30.7                   | 130.5                        | 59,193.76                    | 1,928.14             | 130.5                |                                   |

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|--|----------------|-------------|--------------------|------------------|------------------------|------------------------------|------------------------------|----------------------|----------------------|-----------------------------------|
| 2018 Engineers Week Student Competition Rest |                |             |                    | 1 to 3           | N/A                    | N/A                          | N/A                          | N/A                  | N/A                  |                                   |
| 17 February - UAA School of Engineering      |                |             |                    | 4 to 6           | 986.7                  | 986.7                        | 986.7                        | N/A                  | N/A                  |                                   |
|  |                |             |                    | 7 to 8           | 2014                   | 1891.0                       | 299.9                        | 623.2                | 1863.2               |                                   |
|  |                |             |                    | 9 to 12          | 182                    | 182.0                        | 182.0                        | N/A                  | N/A                  |                                   |
| Index  | Student Number | Grade Group | Name               | Height (in)      | Mass (g)               | Measured Ultimate Load (lbs) | Measured Ultimate Load (g)   | Efficiency (g/g)     | Calculated Load (lb) | Ranking & Notes                   |
| 1  | 1              | 7 to 8      | Kacey Berntsen-Chu | 17 3.8/8         | 140.1                  | 1811                         | 821,455.11                   | 44.99                | 123.8                | Weight penalty                    |
| 48   | Mandie 157     | 7 to 8      | Olivia Dollerhaide | 17               | 43.5                   | 122                          | 55,338.22                    | 1,272.14             | 122.0                |                                   |
| 36   | Abigail 98     | 7 to 8      | Abigail Clundrina  | 20 1/8           | 123.1                  | 698                          | 316,607.22                   | 85.36                | 120.0                | Oversize, weight penalty          |
| 17   | Alena 62       | 7 to 8      | Alena Glover       | 17.875           | 136.3                  | 1360                         | 616,885.12                   | 48.85                | 117.2                | Weight penalty                    |
| 38   | Ian 105        | 7 to 8      | Eva Easton         | 18.5             | 29.7                   | 115.5                        | 52,389.88                    | 1,763.97             | 115.5                |                                   |
| 26   | Abby 77        | 7 to 8      | Addy Jones         | 18               | 115.8                  | 450.2                        | 204,207.12                   | 115.69               | 115.4                | Weight penalty                    |
| 28   | Yleana 81      | 7 to 8      | Yleana Cabrera     | 18               | 30.3                   | 115.4                        | 52,344.52                    | 1,727.54             | 115.4                |                                   |
| 35   | Felicia 97     | 7 to 8      | Felicia Bacon      | 18.5             | 45.1                   | 112.8                        | 51,165.18                    | 1,134.48             | 112.8                |                                   |
| 52   | Sarah 144      | 7 to 8      | Sarah Kaas         | 18 1/8           | 131.6                  | 948.4                        | 430,186.65                   | 54.14                | 108.6                | Weight penalty                    |
| 31   | Ho In 83       | 7 to 8      | Ho In Lee          | 19.25            | 86.2                   | 107.2                        | 48,625.06                    | 564.10               | 107.2                |                                   |
| 44   | Kaylie 38      | 7 to 8      | Kaylie Luedde      | 18.5             | 65.5                   | 103                          | 46,719.98                    | 713.28               | 103.0                |                                   |
| 10   | 15             | 7 to 8      | Miya Richtarsik    | 18.5             | 60                     | 97.13                        | 44,057.39                    | 734.29               | 97.1                 |                                   |
| 58   | Joy 189        | 7 to 8      | Joy Kim            | 17 5/8           | 35.9                   | 90.2                         | 40,914.00                    | 1,139.67             | 90.2                 |                                   |
| 29   | Yueriss 79     | 7 to 8      | Yueriss De Lara    | 18 1/8           | 121.9                  | 379.4                        | 172,092.80                   | 60.20                | 80.2                 | Dowl does not fit, weight penalty |
| 45   | Abby 134       | 7 to 8      | Abby Childers      | 18 7/8           | 26.2                   | 77                           | 34,926.58                    | 1,333.08             | 77.0                 |                                   |
| 14   | 40             | 7 to 8      | Sione Siulua       | 19.25            | 36.4                   | 75.4                         | 34,200.84                    | 939.58               | 75.4                 |                                   |
| 49   | Ellen 147      | 7 to 8      | Ellen Haghighi     | 18 1/8           | 16.2                   | 74.95                        | 33,996.72                    | 2,098.56             | 75.0                 |                                   |
| 5  | Matthew #8     | 7 to 8      | Matthew Long       | 17 1/8           | 23.1                   | 60.79                        | 27,573.86                    | 1,193.67             | 60.8                 |                                   |
| 33   | Stanley 100    | 7 to 8      | Stanley Wu         | 17.25            | 12.5                   | 52.15                        | 23,654.82                    | 1,892.39             | 52.2                 |                                   |
| 21   | 69             | 7 to 8      | Jonuz Iseni        | 17.5             | 28.7                   | 51.69                        | 23,446.17                    | 816.94               | 51.7                 |                                   |
| 15   | 58             | 7 to 8      | Emily Chaleunvon   | 18               | 33.2                   | 39.44                        | 17,889.67                    | 538.85               | 39.4                 |                                   |
| 37   | Arabella 101   | 7 to 8      | Arabella Divina    | 18.75            | 24.1                   | 28.74                        | 13,036.23                    | 540.92               | 28.7                 |                                   |
| 13   | Kevin 41       | 7 to 8      | Kevin Chung        | 18.75            | 13.4                   | 22                           | 9,979.02                     | 744.70               | 22.0                 |                                   |
| 59   | 196            | 7 to 8      | Kanye Gomez        | 17.25            | 12.5                   | 5.3                          | 2,404.04                     | 192.32               | 5.3                  |                                   |
| 8  | Alex #20       | 9 to 12     | Alix Gingrich      | 17.5             | 85                     | 182                          | 82,553.74                    | 971.22               | 182.0                | 1st Place                         |