

2018 SECME ENGNEERING DESIGN MOUSETRAP CAR NATIONAL STUDENT COMPETITION FINALS HIGH SCHOOL DIVISION EMBRY-RIDDLE AERONAUTICAL UNIVERSITY @ DAYTONA, FL JUNE 21, 2018



*SN	*TN	*TR	*TD	*TI	*w	*W	*L	* D 1	*T ₁ -	*T ₂ -1	$*\overline{T}_1$	* D ₂	*T ₁ -2	*T ₂ -	$*\overline{T}_2$	*P ₁	*P ₂	*Рн	*F1	*F2	*TS1	*TS ₂	*BSBR	*R
<u>AHS</u>	<u>Inertia</u>	<u>105</u>	<u>78</u>	<u>71</u>	<u>25</u>	<u>27.2</u>	<u>12.5</u>	<u>1750</u>	9.7	<u>9.7</u>	<u>9.7</u>	3116	<u>21.9</u>	<u>21.9</u>	<u>21.9</u>	<u>669.91</u>	655.97	716.53	93.49	91.55	347.49	345.55	347.49	2
BMES	<u>BMES</u> <u>Warriors</u>	<u>105</u>	<u>85</u>	<u>75</u>	<u>25</u>	<u>32.0</u>	<u>10.0</u>	<u>2290</u>	<u>19.2</u>	<u>19.2</u>	<u>19.2</u>	<u>1990</u>	<u>14.8</u>	<u>14.8</u>	<u>14.8</u>	<u>536.72</u>	<u>558.85</u>	<u>716.53</u>	<u>74.91</u>	<u>77.99</u>	<u>339.91</u>	<u>342.99</u>	<u>342.99</u>	<u>3</u>
<u>CRSHS</u>	Three Blind Mice	<u>104.5</u>	<u>85</u>	<u>70</u>	<u>25</u>	<u>35.9</u>	<u>29.5</u>	<u>3413</u>	<u>16.1</u>	<u>16.1</u>	<u>16.1</u>	<u>3315</u>	<u>16.9</u>	<u>16.9</u>	<u>16.9</u>	<u>716.53</u>	<u>666.72</u>	<u>716.53</u>	<u>100.0</u>	93.05	<u>359.50</u>	<u>352.55</u>	<u>359.5</u>	1
EECHS	The Falcons	0	85	73	25	38.0	10.0	786	6.6	6.6	6.6	952	7.6	7.6	7.6	408.98	438.42	716.53	57.08	61.19	215.08	219.19	219.19	10
LHS	The Three Mouseketeers	104	85	64	25	55.7	9.8	621	9.7	9.7	9.7	665	5.9	5.90	5.90	220.5	368.59	716.53	30.77	51.44	283.77	304.44	304.44	6
NHS	Nothing Feta than Chedda Bruschetta	104	83	66	25	37.3	11.0	2331	25.3	25.30	25.30	2359	25.0	25.0	25.0	418.43	426.82	716.53	58.4	59.57	311.40	312.57	312.57	4
OHHS	The Olympians	99	78	69	25	66.5	13.0	2386	19.2	19.2	19.2	1836	14.7	14.7	14.7	441.81	427.79	716.53	61.66	59.7	307.66	305.70	307.66	5
SAA	SAA 5	99.5	83	71	25	77.4	35.5	1828	17.8	17.8	17.8	1681	16.4	16.4	16.4	324.72	322.79	716.53	45.32	45.05	298.82	298.55	298.82	7
SLHS	Gold Chasers	86	74.5	70	25	85.4	19.0	1534	18.0	18.0	18.0	142	14.3	14.3	14.3	279.3	31.98	716.53	38.98	4.46	269.48	234.96	269.48	8
TRI	Ghostriderz	82	85	27	25	95.6	14.0	2724	18.1	18.1	18.1	406	9.0	9.0	9.0	502.37	142.92	716.53	70.11	19.95	264.11	213.95	264.11	9



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EMBRY-RIDDLE AERONAUTICAL UNIVERSITY @ DAYTONA, FL JUNE 21, 2018

***TR**: Technical Report (max 105 pts including 5 pts bonus-handwritten calculations)

***TD**: Technical Drawing (max 85 pts)

***TI**: Team Interview (max 75 pts)

*w: Standard Weight of Mousetrap constant is 25 g

*W: Total Weight of the team's Mousetrap Car (g)

* \overline{T}_2 : Average time of the 1st run (s)

***P**₂: Performance score 2^{nd} run $\left(\frac{cm}{s}\right)$

***P**_H: Highest Performance score of Mousetrap Car in the competition that day $\left(\frac{cm}{s}\right)$

* $\mathbf{F_2}$: Final performance score, which is the Mousetrap Car 2^{nd} run $\left(\frac{cm}{s}\right)$

***TS**₁: Total Score of the 1st mousetrap car run, team interview, technical drawing, and report.

*L: Length of team's Mousetrap Car (cm)

***D**₁: 1st distance travel by Mousetrap Car 2nd run (cm)

*T₁-1: 1st time travel by Mousetrap Car 1st run

(s)

*T₁-2: 1st time travel by Mousetrap Car 1st run (s)

***P**₁: Performance score of 1st run $\left(\frac{cm}{s}\right)$

* $\mathbf{F_1}$: Final performance score, which is the Mousetrap Car 1st run $\left(\frac{cm}{s}\right)$

***TS**₂: Total Score of the 2nd mousetrap car run, team interview, technical drawing, and report.

*BSBR: Best Score of Both runs for the team's Mousetrap Car.

* \overline{T}_1 : Average time of the 1st run (s)

***D**₂: 1st distance travel by Mousetrap Car 2nd run (cm)

*T₂-1: 2nd time travel by Mousetrap Car 2nd run (s)

*T₂-2: 2nd time travel by Mousetrap Car 2nd run (s)

***R**: Ranking of the competitors



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School Names-District-State or Country

- 1. American Heritage School (AHS)- Broward County Public School, Florida-2nd Place Winner
- 2. Bishop Michael Eldon School (BMES)- Grand Bahama, Bahamas-3rd Place Winner
- 3. Coral Reef Senior High School (CRSHS)- Miami-Dade County Public Schools, Florida-1st Place Winner
- 4. East Early College High School (EECHS)- Houston Independent School District, Texas
- 5. Lyman High School (LHS)- Seminole County Public Schools, Florida
- 6. Nottingham High School (NHS)- Syracuse City School District, New York
- 7. Olympic Heights High School (OHHS)- School District of Palm Beach County, Florida
- 8. Savannah Arts Academy (SAA)- Savannah/Chatham County Public Schools, Georgia
- 9. Sidney Lanier High School (SLHS) Montgomery Public Schools. Alabama
- 10. Tabala Research Institute (TRI)- Tabala of Clarkston Community Center, Georgia