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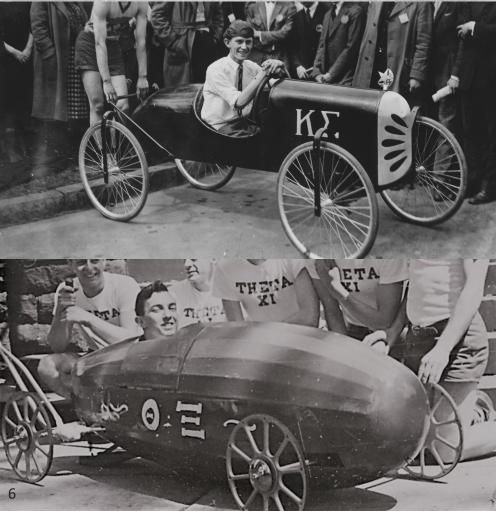




WHAT IS BUGGY?







HISTORY OF BUGGY

At 9:30 AM on May 14, 1920, with what a witness called a conglomeration of rain barrels, orange crates, and ash cans with wheels, the iconic sport of Sweepstakes, more commonly known as Buggy, began its 99-year history. A dozen box-like push-mobiles with male drivers inside lined up on the street that used to run between Hunt Library and Baker Hall. Each buggy was propelled towards Schenley Park by a pusher who rode on the back of the buggy for the downhill portion of the course. At the bottom of the hill was a pit stop, where the pusher switched places with the driver and the mechanic had to swap the rear two wheels to demonstrate the buggy's mechanical prowess.

In 1921 the founders of Buggy eliminated that pit stop. Instead, a design competiton was created to judge the mechanical features of the buggies. When it became mandatory in 1922, buggies like Delta UPsilon's enormous fish became obsolete and mechanical perfection became the new goal. Teams reached unprecedented speeds when two extra pushers were added the same year, and from 1925 onwards, the race was run in heats to reduce collisions. In 1926 a fifth pusher was added to the team, and in 1928, Frew Street was extended, making the Buggy course what it is today.

BUGGIES OVER THE YEARS

As the years progressed, buggies became lighter and more aerodynamic. Buggies began to follow innovations in materials science and mechanical engineering closely as early as the 1930's.

After World War II, aluminum remained the building material of choice but required sophisticated production techniques. Fiberlass composites became the construction standard through the early 80's due to their ease of use, and carbon fiber crept into the bugies in the late 80's starting with Spirit's buggy Quantum Leap. Teams have worked at perfecting their composite technology since then, adding core materials and reducing weight. These days, a well-made carbon fiber shell can weigh less than 9 pounds.

HISTORY OF WHEELS

A light buggy, however, is nothing without good wheels. Prior to World War II, most wheels were penumatics. Starting in 1947, Soap Box Derby wheels were used, until the early 80's when the hubs changed from steel to plastic and were deemed unsafe for Buggy. Many teams adopted off-the-shelf solutions like the Panaracer wheelchair wheels and Xooter scooter wheels. Other teams made custom wheels out of rubber or polyerethane and saw improvement over stock wheels.

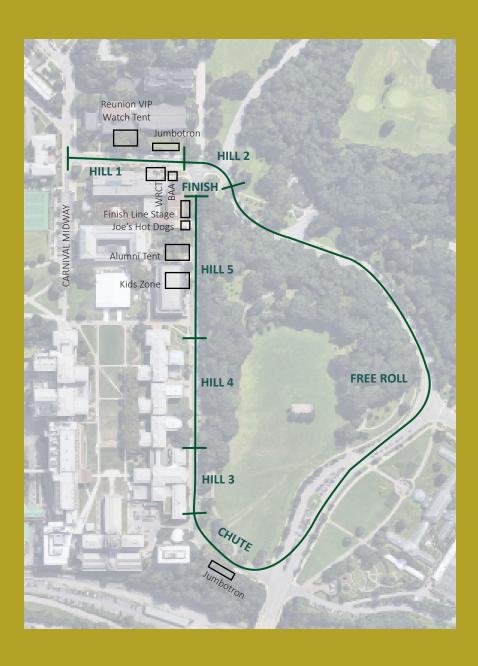
Around 2010, Zero Error Racing began offering over-the-counter, high-quality polyrethane wheels. These wheels have become the standard today for any team looking for fast wheels without having to cast their own.

TODAY

Better aerodynamics, closer race lines, faster pushers, swankier racing stripes... what will it take to break the two minute barrier? Even if it is broken, teams will never stop innovating. Having a fast enough buggy to roll past hill 3 might just be the next milestone, who knows? Pittsburgh weather has certainly lived up to its reputation and Carnival's early arrival brought an extra layer of pressure this year, but the teams have persevered. New buggies have rolled in, and teams have been pushing all year round, so you can expect exciting heats this year!



COURSE MAP



BUGGY TERMS

Buggy

- 1. A vehicle built, operated, and pushed by CMU students for the races held during Carnival.
- 2. Commonly held name of the Sweepstakes race and the sport in general.

Capability Test

Also known as 'capes', a braking test where buggies must stop within a set distance from 15 mph.

Chute

The tight right-hand turn (halfway through the course) from Schenley Dr. to Frew St.

Drop Test

A test of each buggy's braking system; performed before every day of rolls and after each race.

Freeroll

The mostly downhill portion of the course, during which the buggy is freely rolling and the driver is completely in control.

Heat

A time slot on Raceday where up to three teams race against each other at the same time.

Hills

Term for the uphill portions of the course, divided into five sections, each with an individual pusher.

Pushbar Rule

The Hill 5 pusher must have a hand on the buggy as it crosses the finish line.

Rollout

Distance the buggy travels up Frew St. after the chute before the Hill 3 pusher catches up.

Rolls

Weekend practices held from 7am-9am (weather permitting) throughout the year leading up to Raceday.

Spinout

Act of losing traction on the course, resulting in the buggy spinning.

THE TEAM

Driver

Typically a short, lightweight person courageous enough to pilot the buggy around the course.

Mechanic

Builds, maintains, and manages their team's buggies year-round, the off-the-track heroes.

Pusher

The athletic force behind every buggy on the course. Five are required for each buggy on Raceday.

Flagger

Holds landmarks for their team's drivers to help them navigate key turns. Sometimes it's hard for drivers to see so low to the ground.

Catcher

Stops the buggy after it crosses the finish line. Usually also a mechanic.

Follow Car

A vehicle that follows the buggies, for immediate response in case of a crash. During heats, contains judges and crew.



MEN'S TIMES

MEN'S TIMES

<u>Year</u>	Team	Time	<u>Year</u>	Team	Time
2018	SDC	02:03.17	1989	Spirit	02:06.58
2017	SDC	02:02.16	1988	Spirit	02:06.20
2016	SDC	02:02.50	1987	Spirit	02:11.32
2015	SDC	02:12.36	1986	PiKA	02:08.67
2014	SDC	02:04.47	1985	SigNu	02:09.05
2013	SDC	02:04.99	1984	PiKA	02:09.50
2012	SDC	02:05.84	1983	PiKA B	02:09.00
2011	Fringe	02:05.08	1982	SigNu	02:10.80
2010	Fringe	02:07.50	1981	CIA	02:10.40
2009	SDC	02:03.30	1980	PiKA	02:16.40
2008	PiKA	02:04.35	1979	Beta	02:18.40
2007	PiKA	02:07.39	1978	Beta	02:20.00
2006	PiKA	02:07.30	1977	PiKA	02:17.80
2005	PiKA	02:07.87	1976	PiKA	02:23.30
2004	PiKA B	02:11.70	1975	PiKA	02:19.30
2003	PiKA	02:10.10	1974	SigNu	02:20.20
2002	PiKA	02:09.17	1973	PhiKap	02:23.00
2001	Fringe	02:09.07	1972	PhiKap	02:24.00
2000	PiKA	02:06.71	1971	PiKA	02:28.50
1999	PiKA	02:09.72	1970	PiKA	02:28.50
1998	Spirit	02:08.20	1969	Beta	02:22.50
1997	Spirit	02:11.90	1968	PiKA	02:22.50
1996	PiKA	02:08.15	1967	PiKA	02:24.80
1995	PiKA	02:09.98	1966	Beta	02:27.80
1994	PiKA	02:09.17	1965	Beta	02:28.70
1993	Spirit	02:09.89	1964	Beta	02:31.50
1992	Spirit	02:07.01	1963	PiKA	02:31.75
1991	Spirit	02:07.22	1962	ATO	02:27.50
1990	PiKA	02:07.05	1961	ATO	02:27.20

<u>Year</u>	Team	Time
1960	ATO	02:34.50
1959	PiKA	02:29.70
1958	ATO	02:28.40
1957	ATO	02:25.00
1956	ATO	02:25.00
1955	ATO	02:26.00
1954	ATO	02:28.10
1953	ATO	02:30.50
1952	DTD	02:36.00
1951	DTD	02:41.60
1950	DTD	02:41.80
1949	DTD	02:42.50
1948	DTD	02:48.00
1947	DU	
1946	DTD	02:49.00
1941	KapSig	02:55.00
1940	KapSig	02:53.00
1939	KapSig	02:44.00
1938	KapSig	02:43.00
1937	KapSig	03:00.00
1936	KapSig	02:46.80
1935	Beta	02:47.20
1934	KapSig	02:49.70
1933	Beta	02:48.50
1932	Beta	02:54.80
1931	DTD	02:59.00
1930	Beta	02:57.50
1929	PhiKap	03:05.60
1928	KapSig	03:04.40

<u>\</u>	<u>/ear</u>	Team	Time
1	L927	KapSig	03:15.80
1	L926	PiKA	03:18.30
1	L925	KapSig	
1	L924	KapSig	
1	L923	KapSig	
1	L922	SAE	04:30.00
1	L921	ISD	04:38.00
1	L920	Tau Gar	mma Phi

Course record

WOMEN'S TIMES

<u>Year</u>	Team	Time
2018	SDC	02:23.60
2017	SDC	02:23:27
2016	CIA	02:31.06
2015	CIA	02:35.64
2014	SDC	02:33.45
2013	SDC	02:32.60
2012	SDC	02:30.68
2011	SDC	02:34.96
2010	Fringe	02:40.59
2009	SDC	02:25.76
2008	SDC	02:28.84
2007	SDC	02:31.00
2006	PiKA	02:38.50
2005	Fringe	02:37.91
2004	PiKA	02:29.83
2003	Fringe	02:44.81
2002	PiKA	02:30.58
2001	Fringe	02:34.70
2000	SDC	02:35.79
1999	PiKA	02:45.92
1998	PiKA	02:43.28
1997	Spirit	02:37.75
1996	Spirit	02:35.90
1995	Spirit	02:35.75
1994	PiKA	02:42.81
	PiKA	02:38.00
	•	02:33.52
1991	PiKA	02:35.88
1990	PiKA	02:35.66

Voor	Toam	Timo
<u>Year</u>	Team	Time
1989	Spirit	02:35.70
1988	PiKA	02:37.70
1987	Spirit	02:36.60
1986	Spirit	02:38.94
1985	CIA	02:45.33
1984	PiKA	02:48.60
1983	CIA	02:46.50
1982	CIA	02:49.29
1981	SDC	03:04.80
1980	CIA	03:06.30
1979	SDC	03:11.00
1973	KapSig	05:07.50
1972	KapSig	04:25.30

Course record

PAST CHAIRMEN

2018 Camilla Xu
2017 Enosh Shachar
2016 Edward Cao
2015 Elon Bauer
2014 Lars Wander
2013 Josh Hixson
2012 Anthony Pacella
2011 Chris Shellhamer
2010 Jessica Thurston
2009 Andrew Hundt
2008 Mizel Djukic
2007 Mike Rem
2006 Arnold Oh
2005 Sara Player
2004 Janice Golenbock
2003 Janice Golenbock
2002 Scott Wabnitz
2001 Scott Wabnitz
2000 Debby Keller
1999 Debby Keller
1998 Dani Barnard
1997 Fiona Bedford
1996 Greg Dupier
1995 Pete Harllee
1994 Demian Johnston
1993 Alexis dePlanque
1992 Alexis dePlanque
1991 Ray Fratto
1990 Erica Levy

1989 Chris Hansen

1988 Louis (Gino) Cosentino	
1987 Shawn Stufft	
1986 Gretchen Von Grossma	nn
1985 Luan Denny	
1984 Nancy Burns	
1983 Sandy Ruscin	
1982 Elaine Andrysick	
1981 May Slava	
1980 Janet Danek	
1979 Marianne Dwyer	
1978 Gerd Beckmann	
1977 Mark Gardner	
1976 Joan Bothwell	
1975 Dave Kanner	
1974 Dary Turner	
1973 Don Dietrich	
1972 Jeff LaRochelle	
1971 Jeff LaRochelle	
1970 Harold Herre	
1969 Robert Gebbia	
1968 Jim Wentz	
1967 Mike Smolens	
1966 Paul Magnuson	
1965 Roger Powell	



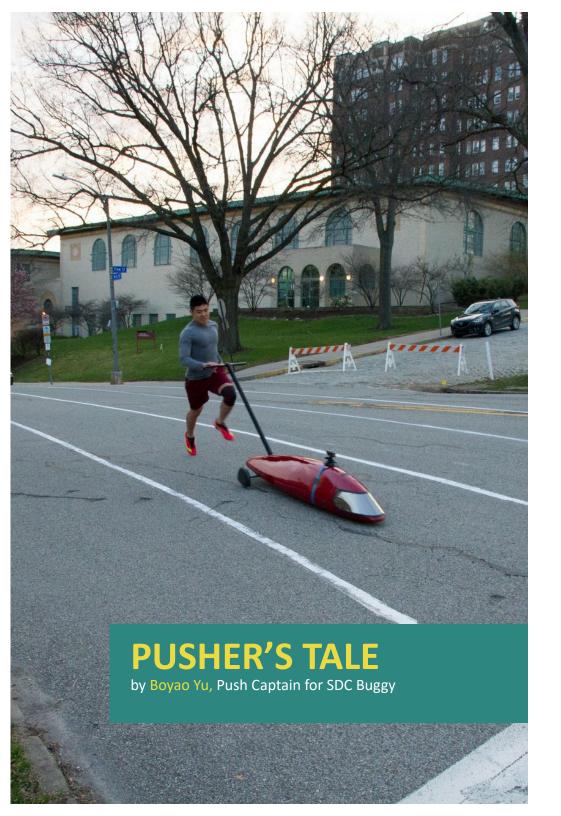
THE TALES





The most exhilarating part of Raceday for me is not crossing the finish-line, like it is for most other drivers; it is the beginning of a race right before the horn sounds. "See you down there", I say to my head mechanic, Mitchell, as I'm being loaded into my beloved buggy, Barracuda for my junior year Men's B team race. As Mitchell heads down the back hills with the Hill 3 pusher, the other dedicated mechanics finish the final touches on Barracuda, and I have some moments to collect myself and my excitement. "30 seconds": I hear one of the mechanics say. Three SigEp brothers lift me off the milk crates in the truck and bring me to the ramp. For every race, I like to keep my head down and eyes closed during these last 20-30 seconds. "10, 9, 8": says the announcer as my brothers float me over the starting position. "7, 6": The floaters wish me a final good luck before setting me down and leaving at the 5 second mark. "3, 2": I swallow a big gulp of air through my mouthguard, taking in the butterflies and excitement. "1": I finally lift my head and open my eyes, looking out to Hill 1 and hearing the fans cheer. The horn sounds, and the race begins.

The rest of the race is more peaceful than exhilarating. Many of the cheers from outside are blocked out by focus and the sound of hot wheels rumbling over cracks in the pavement. One of the privileges of being the lead buggy in a race is that the course feels like it is yours, and you can take your line as you always do and enjoy every moment of it. I think to myself, "Hello, stop sign. Hello, chute flag. Hello, Mitchell. Etc.", and by the grace of dedicated practice and teamwork for the past year, the race is finished beautifully and safely. As soon as I cross the finish line, I snap back into leadership-mode and become concerned with times, drops, if the mechanics are ready for our next heat, and so-on. Buggy taught me that brotherhood, teamwork, and strong leadership are the elements that make-up a successful team; however, it is important to take time for yourself and prioritize health and safety. Whether that means taking a solid 4-hour nap after rolls, taking a dinner break with your teammates while building your new buggy, or keeping your head down to collect yourself while being floated over the start line: always prioritize your health and safety, and never forget the reasons why you chose to participate in the beautiful sport of CMU buggy.



Raceday is one of those days that makes you wake up before your alarm clock and jump out of bed with adrenaline rushing through your body. For pushers, Raceday is what we live for.

I take my spot on Hill 2 and wait for our heat to start. In my head, I keep replaying all the times I have practiced the hill during early morning rolls and late-night transition practices. So many things are going through my mind: Is our Hill 1 going to transition the buggy to me exactly where we practiced? Am I going to be able to give my best shove off to send the buggy into the freeroll when it matters the most?

Everything is faster on Raceday. The mechanics carry out the buggy right before the race and our Hill 1 flies up the hill faster than ever before. Once the buggy enters the transition zone, muscle memory kicks in and my hill is over before I know it. And then the wait starts: watching the buggy going through the freeroll on the jumbotron feels like the slowest minute. The crowd cheers as the driver makes it through the chute turn and everyone rushes to the finish line to cheer for the back-hill pushers, trying to shave off fractions of seconds to get a better time.

But being a pusher means much more than just the glamour during Raceday. Pushing for SDC Buggy allowed me to meet pushers, mechanics, and drivers from diverse backgrounds that I wouldn't have crossed paths with otherwise. Spending time with my teammates outside of buggy playing IM sports, hanging out, and going on trips have been the most fun times I had during college. SDC Buggy has become my family at CMU, and training to be the best pusher I can be to best represent our team's hard work means everything to me.



There's something about that moment. That moment before the countdown. Tightening that last nut with a minute to go, you feel it. Carrying the buggy out of the truck to the bottom of Hill 1, you start to feel it. Hearing an announcer say your team's name, you feel it. Holding a screwdriver in the follow truck, you feel it. Waiting further down the freeroll, with a flag or a barricader's vest, you feel it. Watching the buggy get lowered down to the ground, being passed from mechanic to pusher, seeing that first transition, you feel it.

It's that belief, that trust in your team. It's knowing that you have done everything you can to prepare your team for this very moment. It's the faith in practice making perfect. It's the look your driver has in their eyes, locked-in and ready to roll. It's that honor to be trusted by your drivers to safely get them around the course.

It's those little things, those moments you spent for the last year, whether it was putting googly eyes on a new buggy or fine-tuning old bearings. It's those little things. It's bit of fatigue from waking up at 3:30 to make sure we don't forget the blue tape or the residual effects from painting all night two days earlier. It's the blood, sweat, tears, stressful dreams that your chairman was an SDC spy the whole time, and the culmination of your team's efforts. It's the payoff for each task you asked the freshmen to do, promising them it would all be worth it on Raceday.

It's that anticipation, that energy, that magic in the air. That adrenaline, that eagerness for speed. The cheering, the yelling, the chaos, all focusing into a hush for the countdown.

Everything converging and coalescing in that moment. It only lasts for an instant, so don't miss it.

SWEEPSTAKES

CHAIRMAN/ASST CHAIR Joyce Chen



As I reflect back over my college experience, Buggy stands out as the absolute craziest highlight of these four years. Frigid mornings out on the course, long nights spent in a windowless workspace, and learning more than I ever wanted to about driving a 26' U-Haul or how long the road takes to dry after a bit of rain...all of these moments are essential to the time I've had at Carnegie Mellon. This year, I'm grateful to be on Sweepstakes and see a new side to the sport. It is unbelievably rewarding to see the dedication and passion across all of

the teams - Buggy only exists because of the insane efforts from everyone involved. I first got involved because I wanted to help build a buggy, but I've come to realize that there is so much more to this activity than just technical development. There's the never-ending dedication from team members willing to sacrifice sleep for practice time. There's the thrill of seeing a buggy drive safely through the chute and make it across the finish line on Raceday. Most importantly, there's the incredible community of CMU students, both past and present, who continue to pour their hearts into this sport.

It was a pretty wacky year for Sweepstakes, but I couldn't imagine it any other way. Thank you to Hunter and Elyce for helping out during their last Fall semester at CMU, to Bonnie and Willy for stepping in halfway through the year, to Kaycee for being an incredible advisor, and to all of the teams for bringing so much energy and spirit to this sport. I wish the best of luck to everyone this Raceday!

FALL SPRING

CHAIRMAN Hunter Rideout



The view is different from the top of the hill. After four years of working behind the scenes there is a certain magic to watching rolls unfold in the early morning. Countless hours of workouts, sanding, and lifting hay bales. All of it results in a smooth glide as each buggy flies over the top of Tech street and down the hill. The technical challenge of buggy is really what pulled me into the sport but I stayed for the other side of things. The part that keeps everyone's eyes glued to the chute turn: the competition and the community. An entire

year's worth of work and planning can vanish in a second if a buggy spins, yet that only pushes us to work harder and take the turn tighter. Our friends are counting on us to push things as far and as hard as we can.

It's no secret that Buggy is a truly bizarre sport. It's a mix of engineering, athleticism, coordination and planning. Its a community that inspires creativity and a drive to succeed. Buggy also fosters an incredibly valuable trait: scrappiness. The will to use whatever tools and resources we can get our hands on to get the job done. It's that drive that has us spending all night in the buggy shop tweaking the final details before Raceday. It's that drive that has us diving for the push bar at the finish line.

Every buggy and every race is a passion project. I'm happy to have had the opportunity to help teams get the chance to race this year. Roll fast and roll safe.

SAFETY CHAIRMAN Elyce Milligan



Hello! My name is Elyce Milligan, and I was Safety Chair for the fall. I'd already been Assistant Chair last Raceday, and had actually planned on just helping out this year before leaving in December. Due to some unforeseen (yet not surprising) circumstances, I was elected Safety Chair. I'm glad I was able to help and get another jacket:). Of course, I was also happy to see plenty of new and familiar faces. I wasnt able to keep up with everyone in the spring, but I am excited to see everyone race! Go buggy!

ASST CHAIRMAN Willy Clark



I am extremely excited about the opportunity to serve as assistant sweepstakes chair this Raceday. I have pushed for PiKA the last three years, serving as push captain for two of those. Contributing to the sweepstakes team has allowed me to see a whole new side of Buggy and has given a greater appreciation for all that goes into Raceday. Along with serving in my sweepstakes role, I will be pushing for PiKA again this year, with the stipulation I recuse myself from judging men's races. This took a lot of understanding from the Buggy community so

I'd like to especially to thank all of the organizations for being accommodating and allowing me one last chance to compete as a senior. It's also been an absolute pleasure working with Joyce, Boneth, and Kaycee and I thank them for being understanding as I learned my position. I'm looking forward to a great Raceday and wishing everyone two safe and competitive days of Buggy!

SAFETY CHAIRMAN Bonnie Li



Hello, I am Bonnie Li, the spring safety chairman for Raceday 2019 and a senior studying Material Science and Engineering. I would like to thank Elyce, Jasio, and Kaycee for giving me the opportunity to play such an important role in this Carnegie Mellon tradition along with Joyce and Williath. My freshman year I was only interested in being a driver but when I learned that I was too wide for the buggy, I decided to focus on other parts of CMU. However in sophomore year, CIA's energy and love for buggy rolled my interest back onto the course. I

became a support chair, driver, pusher, and safety mechanic for Carnegie Involvement Association the following year. During this time my love for buggy grew and I wanted to stay within the community but with a different role, one that involves helping the entire community. Throughout my interactions with other teams, I've had so much fun witnessing the fun all the teams have and their energy for buggy! I would like to thank all the teams for their cooperation and energy. Also special thanks to myself for dealing with the cold every weekend morning. Good Luck Everybody!

DESIGN COMP CHAIR Andre Gutierrez



With all the excitement for the races on Friday and Saturday, Design Comp is typically the very last thing on everyone's mind until the very days before, when there is nothing left to do but finish up the fresh paint job on your newest buggy and wipe the dust off the others. I am definitely not speaking from personal experience when I say that some teams are haphazardly tossing buggies into Wiegand three minutes before the deadline to compete. When I first joined Apex, I was immediately pulled in by all the intricate design details of the current

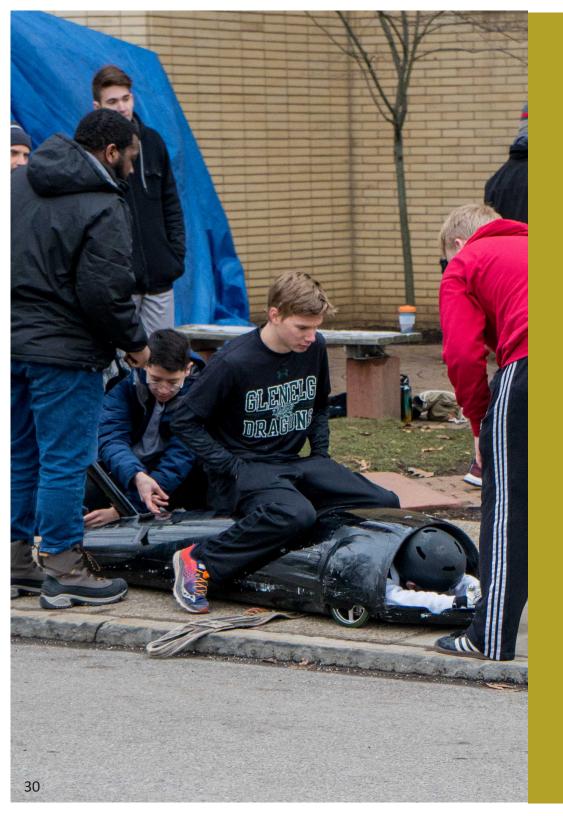
buggy project (Dumpsterfire, which didn't ever see the light of day, but we don't talk about that). Presenting our sturdiest buggy, Phoenix, to an expert panel of judges in everything from design to manufacturing inspired me to dive into the design process as head mechanic. I'm back where I started in Wiegand gym surrounded by each team's best buggies, but this time, in a bright red jacket.

BUGGY BOOK CHAIR Sam Wong



Buggy is one of those things that people invest their whole selves in - the early morning rolls, late night push practices, endless hours in the shop, and careful Raceday diets only scratch the surface. It's a prime example of the drive and passion that CMU is known for, using cutting edge (and more janky) technology to be the absolute best in a sport that only our school competes in. It's weird and doesn't make sense a lot of the time, but it's one of those things that is just so CMU. And so, it deserves to be documented in all its glory. After participating in

Buggy for the past four years, whether as a driver, mechanic, Buggy Book designer, or (my least favorite) pusher, I have seen the blood, sweat, tears, and immense amounts of duct tape that go into this crazy sport. It's been a privilege to be a part of this community and Buggy has been such a defining part of my CMU experience. I hope that I could do justice to all of the heart and soul that the teams put into Raceday. Thank you to the rest of Sweepstakes, Kaycee, BAA, and all of the teams for helping me document another crazy year of buggy!



THE TEAMS



APEX



Apex began in 2012 when a group of friends living in the Rez on Fifth had the crazy idea of starting a buggy team. Now entering its seventh year, Apex remains dedicated to the principles that motivated its formation: teamwork, passion, and innovation. Apex aims to challenge the field of buggy by not living up to the status quo set by other orgs; we want to see the sport succeed through collaboration within the buggy community. Apex is a team that researches, designs, and engineers buggies. But first and foremost, we are a group of friends who have come together to support and challenge each other, share our excitement of buggy, and have fun along that way. If you're interested in buggy and want to learn more, stop by our shop - our door is always open.

Chairman: Antonio Freiria

Assistant Chairman: Maddy Arcurio **Head Mechanic:** Maxwell Johnson

Assistant Head Mechanic (and Trivia Chair): Vidya Shastry

Treasurer: Veronica Seward-Aponte **Recruitment & Outreach:** Kevin Xuan

Head Driver: Vicki Wang **Push Captain:** Frankie Moore **Social Chair:** Andre Gutierrez

Drivers

Vicki Wang, Joanne Tsai, Amanda Vallon, Bethany Bauer

Buggies

Solaris (2019) Azula (2018) Firefly (2017) Phoenix (2013)

Mechanics

Abigail Rafter, Alexandra Anderson, Andrew Cao, Avanti Pandit, Connor Hayes, Kayleigh Boyle, Lucian Montgomery, Ned Rowland, Nico Mignucci, Ryan Huang, Sprina Wu, Sydney Baker

Special Thanks

Adam McCue, Chris Kaffine, and all of our amazing alumni who have supported us through the years!







CIA



Founded in 1970, the Carnegie Involvement Association, or CIA, was the first independent (non-Greek) organization to win Sweepstakes, or Buggy. Open to all members of the student body, CIA's objective is to strike the right balance between performing well and having a blast!

Chair: Sabrina Wang

Assistant Chairs: Tina Wu, Kady Yip

Head Driver: Emily Wong

Head Mechanics: Alan Qiu, Fatima Basit

Build Leads: Louis Plottel, Rachel Hsin, Ishraq Bhuiyan

Push Captains: Andrea Sipos, Adolfo Victoria, Tina Wu, Enes Palaz,

Brandon Jin

Support Chair: Manny Lopez **Social Chair:** Sarah Dieckmann

PR Chair and Alumni Relations Chair: Sasha Volodin

Treasurer: Sarah Chen

Secretary and Pancake Chair: Raghu Venkatesh

IM Chair: Adolfo Victoria

Design Chair: Rachel Motz

Faculty Advisor: Conrad Zapanta

Drivers

Emily Wong, Rachel Motz, Nahyun Kim, Tori Ciplickas, Janet Li

Buggies

Aurora (2019)

Emperor (2017)

Tempest (2016)

Equinox (2015)

Icarus (2014)

Special Thanks

Alumni, Jerry Carlson, Shafeeq Sinnamohideen, Charles Munoz, Guillermo Gomez, John Brandt, Erin May, Alex May, Sean Kelly, Dan Sibley, Peter Mariani, Laura Kee, Daryl Browne, Frank Robb, Lou Conley, Luis Hernandez, Reid Long









FRINGE



Since 1969, Fringe has evolved from a small group of architects into a massive family of students from all corners of campus. Since our beginning, we have run on blind faith in our efforts to iterate on the work, love, and shenanigans of those who came before us. In our 50th year, we are proud of who we've become, grateful for the memories we've shared, and eager to break away from what we thought was possible. Here's to 50 years On The Edge, and beyond. Fringe ready? FRINGE ROLL

Chairmen: Natalie Herrmann, Emilie Harold **Head Mechanics:** Diya Nuxoll, Dave Singh

Head Driver: Amy Chen

Men's Push Captain: Evan Schindewolf Women's Push Captain: Helen Cheng

Wheels Guru: Eleanor Seiler

Drivers

Amy Chen, Sarah Connor, Tishya Girdhar, Melina Imamura, Asumi Gibeau

Buggies

Blind Faith (2019)

Bumper (2018)

Blueshift (2017)

Boson (2016)

Mechanics

Adrian Kager, Ali Hoffmann, Andrew Osborn, Carolyn Youstra, David Cohen, Denise Yang, Emilio Guevara, Emily Sespico, James Wang, Jason Chadwick, Joanne Zulinski, Jonathan Sultan, Kenan Danon, Luis Ortega, Maya Liu, Nigel Nderi, Raul Martinez, Seema Kamath, Tanvi Bhargava, Vidhi Patel

Special Thanks

Madison Scott, Adam McCue, Eli Murphy-Trotzky, Scott Ziokolo, Ray Barsa, Declan Kelly, Tammy Wong, Nuxoll family, Hunter Taft Rideout, Mike Vélez, Kaycee Palko

No Thanks

Pittsburgh, Vacuum bags, Spy Natalie, Wind vs Tarp: A Trilogy, The Mice, Potholes:'(, Phipps sign implosions, Bale explosions, Carnival moving up a week, RAIN





PHI DELT



PDB stands for both Phi Delt Buggy and Pieter de Buck for a reason. The team would not exist if it was not for his hard work and dedication over the years. The team also has Adeline Shin to thank for being one of the most committed members over the past few years as well as Sai Korivi for her initiative when we put out a call for another driver. Without these three people, Phi Delt Buggy would not be possible.

Chairmen: Justin Villalon, Hans Kumar

Drivers

Adeline Shin, Sai Korivi

Buggies

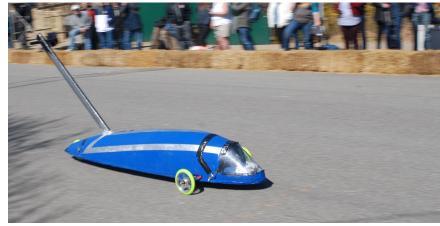
Argo (2017)

Mechanics

Pieter de Buck

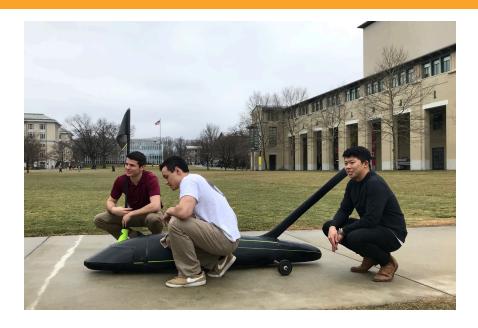
Special Thanks

Pieter de Buck, Adeline Shin, and Sai Korivi for their dedication





PIKA



"I Wanna Go Fast"
-Ricky Bobby
-Victoria Vanbenschoten

Chairman: Ryan Barrett **Chairman:** Robert Levin

Head Mechanic: Justin Belardi **Push Team Captain:** Jason Folker **Push Team Captain:** Johnny Pereira

Women's Push Team Captain: Megan Jaeb

Drivers

Victoria Vanbenschoten, Taylor Davis, Katy Zapanta

Buggies

Wraith (2019)

Cleona (2016)

Banshee (2013)

Raptor (2011)

Mechanics

Aaron Silverstein, Lior Barhai, Asad Dar, Tyler Duic, Jonathan Hua, Jorge Castano, Krish Vish, Nick Calzolano

Special Thanks

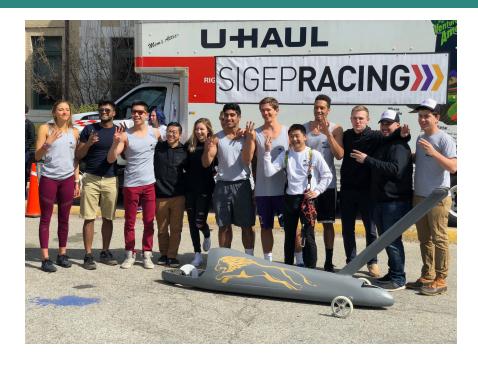
Patrick Tan (Cape King)







SAE



SAE is proud to be celebrating its 100th year at CMU this carnival. We will be rolling Eileen for the second year, with an updated steering system, push-bar, and rear axle. We would like to thank Haine, our driver, and all of our passionate alumni for their support.

Chairman: Chris Calder

Assistant Chairman: Spencer Bowman

Push Captain: Mark Prettyman

Drivers

Haine

Buggies

Eileen (2018)

Mechanics

Chris Calder, Spencer Bowman

Flaggers/Timers

Joon Yang, Santiago Brusseau, Nicholas Toldalagi, Oliver Pennington

Special Thanks

Sigma Alpha Epsilon PA Phi Alumni







SDC



In SDC Buggy, we like to go fast while also representing our dorm student community. We value hard work and believe that even the smallest things have importance. We foster an innovative spirit while respecting and building upon the great contributions of our alumni before us. "SDC Rulez!"

Chairman: Noah Thompson Head Mechanic: Gracia Genero Head Driver: Kyoko Inagawa

Push Captains: Marry Garrett, Shannon Finnerty, Boyao Yu, and

Sophia Angel

Drivers

Kyoko Inagawa, Elaine Ouyang, Mae Hoad, Zofia Majewski

Buggies

Vanity (2019)

Inferno (2017)

Bane (2011)

Avarice (2010)

Mechanics

Isabelle Chevallier, Kevin DeVincentis, Ray Galeza, Alex Noring, Cody Yang, Boyao Yu, Molly Browning, Gracia Genero, Noah Thompson, Nicole Chu, Jacob Gruza, Ted Kang, Vincent Liu, Jacob Rushkoff, Scott Rothbaum, Evann Wu, George Zhu, Nishka Ahuja, Cathy Chen, Jeremy Dropkin, Javier Farias, Steven Jackson, Amanda Jin, Lila Rokanas, Jasmine Shen, Brandon Wang, Eli Workman, Ashely Zhang

Special Thanks

Alex Roman, Camilla, Drevin, Isabelle, Mike Darcy, Jeremy Tuttle, Josh, Dan, Chris Goode, Annie, Connie, Jake, Alex, CSM, Riley, Wade, Nat, Sunny & Laura, GLong, Derek, Jing, Michelle Mirabella, Jon G, Gessner, David & Kathy, Brian Flores, NickMo, Ian Price, Michelle Wong, Nicole Tseng, Orzalli, Alex Y, Annie Zheng, Jordan and Eddy, Zoe, Liz Ji, Omer, Won, Kumail Lassi, Chris Reyes, and SDC Genbod



SIG EP



Pushing for Virtue, Diligence, and Brotherly Love

Chairwoman: Sophie Halpern

Assistant Chairman: Jake Muskovitz

Head Mechanic: Carl Young **Push Captain:** Julia Adams

Drivers

Sophie Halpern, Haiwen Liu, Beccy Zheng, Emma Cohron

Buggies

Beyonce (2017) Hydra (2016) Kraken (2013) Barracuda (2009)

Mechanics

Lily Marty, Tynan Tinley, Jake Muskovitz, Taylor Tabb

Pushers

Phil Johnson, Alex Brooks, Taylor Tabb, Carl Young, James Gualtieri, Lazar Andjelic, Cameron Pitts, Parker Fleterman, Jake Muskovitz, Spencer Burleigh, Andy Gao, Ben Stone, Benjamin Contesse, Edward Ahn, Felix Liu, Gerard van Smedan, John Chen, Morgan Stanley, Nikhil Swaminathan, Oscar Kavanagh, Victoria Feng, Julia Adams, Jaime Slomka, Ellie Walstad, Hera Miao, Miranda Mlincek, Jocelyn Chan, Aileen Yu, Ugne Ziausyte, Teagan Goforth, Arabella Reece, Olivia Li



SIG NU



With last year's season leaving much to be desired and ending without qualifying, Sigma Nu's buggy team led by Max Van Buskirk has put an enormous amount of effort into getting their buggy Krait, rookie driver Simon (Seung Yun) Lee and the entire Sigma Nu buggy team Raceday ready. With the guidance of our alumni who are part of a long-standing tradition of Sigma Nu's buggy program, ESP Racing is back from the grave and ready to compete.

Chairman: Maxwell Van Buskirk

Drivers

Simon (Seung Yun) Lee

Buggies

Krait (2009)

Mechanics

Victor Marculescu, Roberto Rivas, Vinay Gonugondla, Kai Lung, Keilan Lewis, Charlie Meng, Ian Suzuki, Peyton Chi, Chakara Owarang

Pushers

Andrew Schreffler, Steve Schollmeyer, Kevin Riordan, Flako (Daniells) Edwards, George Kim, David Bautista, Alex Goberna, Maxwell Van Buskirk

Flaggers/Timers

Chaitanya Lokireddy, Alex Patel, John Paul, Jeremy Leung

Special Thanks

Mark Estes, Duane Delaney, Brett Zakeosian, Sigma Nu Alumni







SPIRIT



SPIRIT Racing Systems, also known as "SRS" or "SPIRIT Buggy," is a group of multicultural students at Carnegie Mellon University who strive to bring inclusivity, pride, and excellence to the sport of buggy.

Chairman: Matthew Swain
Chairman: Chris Fulton
Head Driver: Nina Prakash
Head Pusher: Akua Oppong
Push Captain: Adam Assaad
Push Captain: Thomas Anderson
Head Mechanic: Lane Darby
Head Mechanic: Funmbi Jaiyeola
Head Flagger: Adrian Johnson

Media/Design Chair: Daniela Delgado Senior Shop Manager: Frank Andujar Shop Manager: GianCarlo Seixas Finance Chair: Dylan Pollak

Drivers

Beichen Liu, Nina Prakash, Chloe Lenker

Buggies

Inviscid (2015) Mapambazuko/Zuke (2011) Seraph (2004) Kingpin II (2002)

Mechanics

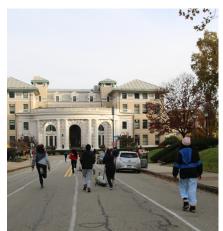
Amen Assefa, Zacchaeus Williams, Maame Conduah, Tiara Wicks, Mabel Tsado, Spandan Sharma, Allison Rojas, Stuart Johnson, Jacob Abrams, Takshsheel Goswami, Sarah Korssa, Kevin Castro, Justin Mitchell, Tomi Akin-Sodipo, Quentin Thomas

Flaggers/Timers

Adrian Johnson, Arnold Ogbogu, Sandra Vordzorgbe, Hailey Omollo

Special Thanks

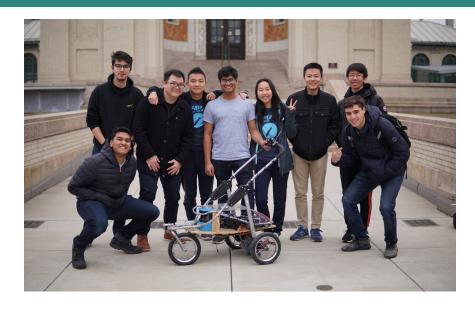
Thomas Felmley, Robert Bowie, Matt Wagner, Cherlisa Tarpeh, Kristen Smith, Josie Lacoe, Velda Brunson, Shernell Smith, CMARC/ Center of Student Diversity & Inclusion, Carnegie Mellon Black Alumni Association







ATLAS



Founded in the spring of 2015, Atlas is an autonomous buggy team dedicated to creating a buggy that will drive itself around the course. Members of Atlas are from across all disciplines and come together to build, code, and eat food together nearly three times a week. Atlas' current fleet of self-driving robots consists of two buggies. The best-known of which is BabyBuggy, which rolled on Racedays 2017 and 2018, is a retrofit stroller-turned-buggy. The newest addition is the creatively named Dune Buggy, a middle school kid sized electric dune buggy. Atlas is hoping to roll BabyBuggy completely autonomously on RD19 with no crashes!

Chairman: Oshadha Gunasekara Assistant Chairman: Aileen Zhai Software Lead: Blair Chen Hardware Lead: Gavin Shehan

Social Chair: Stanley Chang

Buggies

Dune Buggy (2018) BabyBuggy (2017)

Members

Abbey Tharpe, Abhi Devarapalli, Aileen Zhai, Blair Chen, Christopher Bernard, Dylan Chou, Emilio Guevara, Enes Palaz, Frank Zheng, Krishna Donepudi, Shane Guan, Shreyan Jaiswal, Stanley Chang, Udyaaksh Khera

Special Thanks

Benjamin Warwick, Christopher Perry, Elyce Milligan







ROBOBUGGY



Robobuggy is here for another year of autonomous rolling! We've spent this year redesigning major components and updating various systems of both NAND and Transistor, and we're looking forward to exhibiting our improvements on Raceday.

Chairman: Eric Barrett

Mechanical Lead: Howard Coffin Software Lead: Vivaan Bahl Electrical Lead: Dylan Tom

Operations Lead: Tiffany Yu, Howard Coffin

Driver: Caitie Chou

Buggies

NAND (2018) Transistor (2015)

Mechanical

Eric Barrett, Howard Coffin, Mark Coopershlyak, Dani Quan, Dominick Johnson, David Topping

Electrical

Jonathan Duffy, Dylan Tom, Tiffany Yu

Software

Vivaan Bahl, Caitie Chou, Abhinav Girish, Jimin Byun, Ning Cao

Special Thanks to our sponsors Epic Metals, Aptiv, NVidia, and Hillcrest Labs for their support, as well as our fantastic alumni!







SUPPORT ORGS + OTHER INFO



BUGGYALUMNIASSOCIATION

"Congratulations, Seniors! You're Alumni Now"

You know you're going to miss buggy most of all. Here's how you can stay involved! Register before graduation (May 19) to get 1 year of premium membership benefits for free:

http://cmubuggy.org/seniors

Member Benefits

Supporting Members are the first to know when exciting new buggy events are happening and receive special Members-only content like the Raceday Preview.

After your first year

A contribution of any size makes you a supporter and helps us pursue our 5-point mission:

- 1. Preserve and make accessible the history of the sport
- 2. Provide a channel by which alumni can remain connected to and support the sport
- 3. Support and improve undergraduate participation
- 4. Improve relations and raise interest in the greater Pittsburgh community
- 5. Unite alumni across organizations

Be sure to visit http://cmubuggy.org for access to:

- Buggy photos
- Sweepstakes history
- The latest in buggy news
- A forum where you can talk buggy with your fellow alumni





Carnegie Mellon University EMS provides 24/7 emergency medical response to the Carnegie Mellon campus community and surrounding areas, as well as medical standby support to CMU organizations as needed for major events (like buggy!). Licensed by the Pennsylvania Department of Health as a Quick Response Service, CMU EMS provides a Basic Life Support level of care to over 600 calls per year. CMU EMS has been in service since 1984. EMS is proud to be in the chute standing by bright and early every rolls day! Remember to call CMU EMS at 412.268.2323 in case of emergency. We hope everyone has a safe Carnival 2019!



W3VC is the invaluable team of radio experts that keep rolls running smoothly throughout the year. From the top of Hill 2 to the end of the chute, this team of hardworking individuals makes sure the course is clear and reports any problems to Sweepstakes. When a team crashes, they are the first to let the top of the hill know what happened and what needs to happen. They are as crucial as the Sweepstakes Committee and we really couldn't do it without them. Thank you guys.



cmuTV is a student-run television station of Carnegie Mellon University. They bring together all of the video footage of Sweepstakes including the live stream, Raceday videos, team profiles, and behind-the-scenes footage of Buggy. Thanks to the team for all of their help and support!



A non-commercial freeform radio station hosted in the basement of Carnegie Mellon's University Center, WRCT broadcasts interviews as well as Raceday coverage during the buggy races. Many thanks to the team for making that possible.

SPECIAL THANKS

Sweepstakes would like to thank the following people for helping make Raceday 2019 a success:

Alumni Relations:

Laurel Bosshart Furlow

Tim Leonard

Anne Witchner

Buggy Alumni Association:

Ben Matzke

Lou Conlev

Tom Wood

Head Judges:

Hunter Rideout

Elyce Milligan

Buggy Showcase Judges:

Paul Browning

Wayne Chung

Nestor Gomez

Robert Heard

Rebecca Taylor

Carnegie Mellon EMS

Carnegie Mellon Police

City of Pittsburgh EMS

City of PIttsburgh Police

City of Pittsburgh Special Events

Committee

cmuTV

WRCT

W3VC

Environment Health & Safety:

Tom Plietz

Dean Thomas

Steven Lane

Rebecca Cicco

Joe's Hot Dog House

Kavcee Palko

Phoenix Sport Technology

BrandSafway Scaffolding

Viewpoint Production

ProLit

Spring Carnival Committee

SLICE

Taylor Rental

SPONSORS





COMMENTATORS



Bryan Arsham, DC '08 - AEPi

Bryan spent his undergraduate buggy career as a member of AEPi, where he began as a flagger before working his way up to house Buggy Chair (and occasional builder). He is best known for his efforts as the alumni pusher of the classic "AEPit Crew" exhibition heat during Raceday 2009. He graduated in 2008 with a major in Policy & Management and a minor in business, but decided to leave that all behind for the law, graduating from Georgetown

University Law Center in 2013. He currently lives in Los Angeles, California, where in addition to his roles as BAA Treasurer and Buggy Broadcaster, he works as a lawyer for Fandango and Rotten Tomatoes.



Andv Bordick, CFA '94 - PiKA

Andy joined buggy as a mechanic, then chairman of PiKA, where they eventually won Sweepstakes in 1994 with a strong push team and a great buggy in Mad Dog. The buggy went on to win in 1995 and 1996 as he entered the Navy as a pilot. Since graduating, Andy has been active with the BAA, supporting several alumni initiatives to keep the event

amazing. He married the former Ms. Nancy Atkinson (CIT '93) who gracefully supports his buggy habit.



Mark Estes, CIT '87, GSIA '93 - SigNu

Mark was a part of Sigma Nu from 1982 - 1987 with wins in 82 and 85, and spins in 86, 87. He lived thorough the transition from 4 to 3 wheels and the era of the panaracer pneumatics. While on the team, he was their wheel guy, buggy designer, and builder of Lemur, Colugo, Jerboa, Yamabachi, Pope Jackson, and King. In the pre-cmuTV days, he was

an occasional lead car camera man and has since been a part of the broadcast team for the last several years. Outside of buggy, Mark has competed in the All-American Soap Box Derby ultimate speed division from 2009 - 2016 earning 5 wins and holds the current track record. In his words: "Might know a a thing or two about wheels. Might not." Currently lives in CA having done work for medical device startups.



Linna Griffin, CFA '17 - Fringe & Sweepstakes

When Linna started doing buggy, she was looking for hands-on experience designing and crafting with carbon fiber. Somewhere along the way she became the first female head mechanic of Fringe and helped craft and design four buggies, one of which is now hanging in Tepper. Today Linna lives in CA, designing exterior automotive accessories.



Jordan Kunz, TSB '15 - SDC

Jordan joined SDC as a pusher during his first year at CMU and went on to push in five Racedays. He also was a Push Captain for RD 2013 and 2014. After undergrad Jordan stayed at CMU to get a Masters from the Heinz College and is now a Tech Consultant at PwC in New York.



Erin May, MCS '10 - CIA

During her time at CMU, Erin majored in chemistry and was active in the Carnegie Involvement Association as a pusher, occasional push-practice driver, and RD 2009chairman. After college, she attended UC Berkeley and completed a Ph.D. in nuclear and radiochemistry. Erin married herself a CIA mechanic in 2013 and has been on a homemaking/mothering sabbatical since late 2018 following the birth of their first daughter.



Will Weiner, DC '13 - WRCT

Will got into buggy through doing sports broadcasting with WRCT as a freshman at CMU. Somehow he's stayed in the play by play role for the races ever since, with this being his 10th Raceday behind the microphone. He now lives in nearby Braddock, PA and runs a company called Xpogo which manages the top athletes in the sport of extreme pogo

sticking, which was a clear next step after buggy.

BUGGY

SHOWCASE

ENTRIES

Design Competition

Buggy
Solaris
Apex
Azula
Apex
Aurora
CIA
Emperor
Blind Faith
Fringe
Blueshift
Fringe

People's Choice

•	
Buggy	<u>Team</u>
Solaris	Apex
BabyBuggy	Atlas
Aurora	CIA
Blind Faith	Fringe
Argo	Phi Delt
Wraith	PiKA
Eileen	SAE
Vanity	SDC
Barracuda	Sig Ep
Krait	Sig Nu
Inviscid	Spirit
NAND	Roboclub

JUDGES

Paul Browning

President & CEO of Mitsubishi Hitachi Power Systems Americas, Inc.; CIT '90

Wayne Chung

Associate Professor in Design and Product Design Program Chair

Robert Heard

Teaching Professor in Materials Science & Engineering

Nestor Gomez

Visiting Assistant Teaching Professor in Mechanical Engineering

Rebecca Taylor

Assistant Professor in Mechanical Engineering

SCHEDULE

10:00 a.m. Teams present to judges

12:00 p.m. Doors open to public

12:30 p.m. Finalists announced

Buggy Alumni Panel

2:00 p.m. Design Showcase/Compeition Ends

Be sure to come to the Awards Ceremony on Saturday at 4 pm at the Midway Stage on The Cut to find out the winner!

PANELISTS

Annie Black, DC '18 - SDC

Annie was Head Driver of SDC Buggy and drove 2014-2018; she was part of the recordbreaking teams in 2016 and 2017. Since graduation, she has been living in NYC working as a software engineer at MongoDB and exploring her new city!

Duane Delaney, CIT '87 - SigNu

Duane was a mechanic, builder, and chief wheel guru for Sigma Nu from 1983-1990. He has attended the races for 35 consecutive years without missing a roll and probably had something to do with 75% of the wheels on the course over the last 10 years. He is currently rubber chemist with Goodyear.

Tom Felmley, MCS '88, CIT '94 - Spirit

Tom was part of the design team for Spirit's Quantum Leap and winning chairman while in grad school in the mid-90's. He is the co-director of a small international disaster response ministry and owner of Group 66 Designs, a small jewelry and project management firm.

Linna Griffin, CFA '17 - Fringe & Sweepstakes

Linna was the first female head mechanic of Fringe and helped craft and design four buggies. She currently designs exterior automotive accessories in CA.

Adam McCue, DC '07 - KDR & Sweepstakes

Adam was the slowest pusher of all time in 2003, house record holding KDR chair in 2005, Safety Chair in 2006, Head Judge in 2007, and intoxicated 2008-present.

Hunter Rideout, CIT '18 - Fringe & Sweepstakes

Hunter led Fringe buggy for 3 years and served as President of Fringe for 1 year. He also spent a semester (Fall 18) as sweepstakes chairman.

Moderated By: Jeremy Tuttle, MCS '10 - SDC

CARNIVAL SCHEDULE

HEATS/LIVESTREAM

WEDNESDAY

WRCT Sweepstakes 2019 Preview

88.3 FM 8 p.m.

THURSDAY

Buggy Showcase

Wiegand Gym, 1st Floor, CUC Noon-2 p.m.

Spring Carnival Midway Opening Ceremony

Diagonal Sidewalk between CUC and Fence 3-3:30 p.m.

Buggy Alumni Association (BAA) Welcome Event

Fuel & Fuddle, 212 Oakland Avenue 7-9 p.m.

FRIDAY

Sweepstakes Preliminary Races

Schenley Park (course on Tech, Schenley, & Frew) 8 a.m.-Noon

The History of Buggy: Showcasing Reunion Years

Midway Reunion Hospitality Tent, The Cut 1:30-3 p.m.

Buggy Recap & Finals Auction

Hough's Taproom, 563 Greenfield Avenue 7-10 p.m.

SATURDAY

Sweepstakes Final Races

Schenley Park (course on Tech, Schenley, & Frew) 9 a.m.-Noon

Spring Carnival Booth & Sweepstakes Award Ceremony

Midway Stage, The Cut 4 p.m.

For all things buggy and Raceday, check out:

Live Heat Schedule

https://tinyurl.com/buggyrd19

Raceday Coverage

https://livestream.com/cmuTVlive/sweepstakes2019

For complete pusher rosters, be sure to tune in to the live broadcast!





Buggy Celebrates

100 Years on April 17 & 18, 2020



