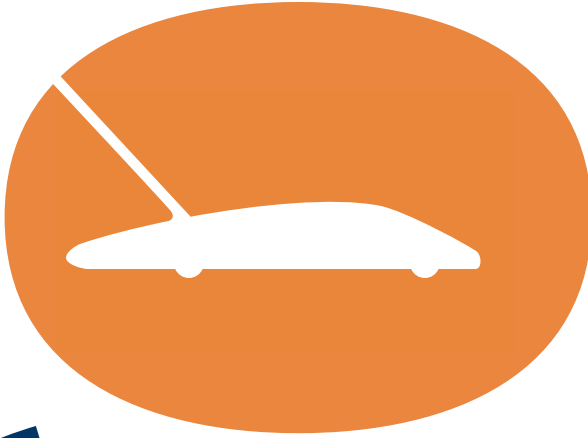


ONE HUNDRED



Sweepstakes 2022

YEARS OF BUGGY



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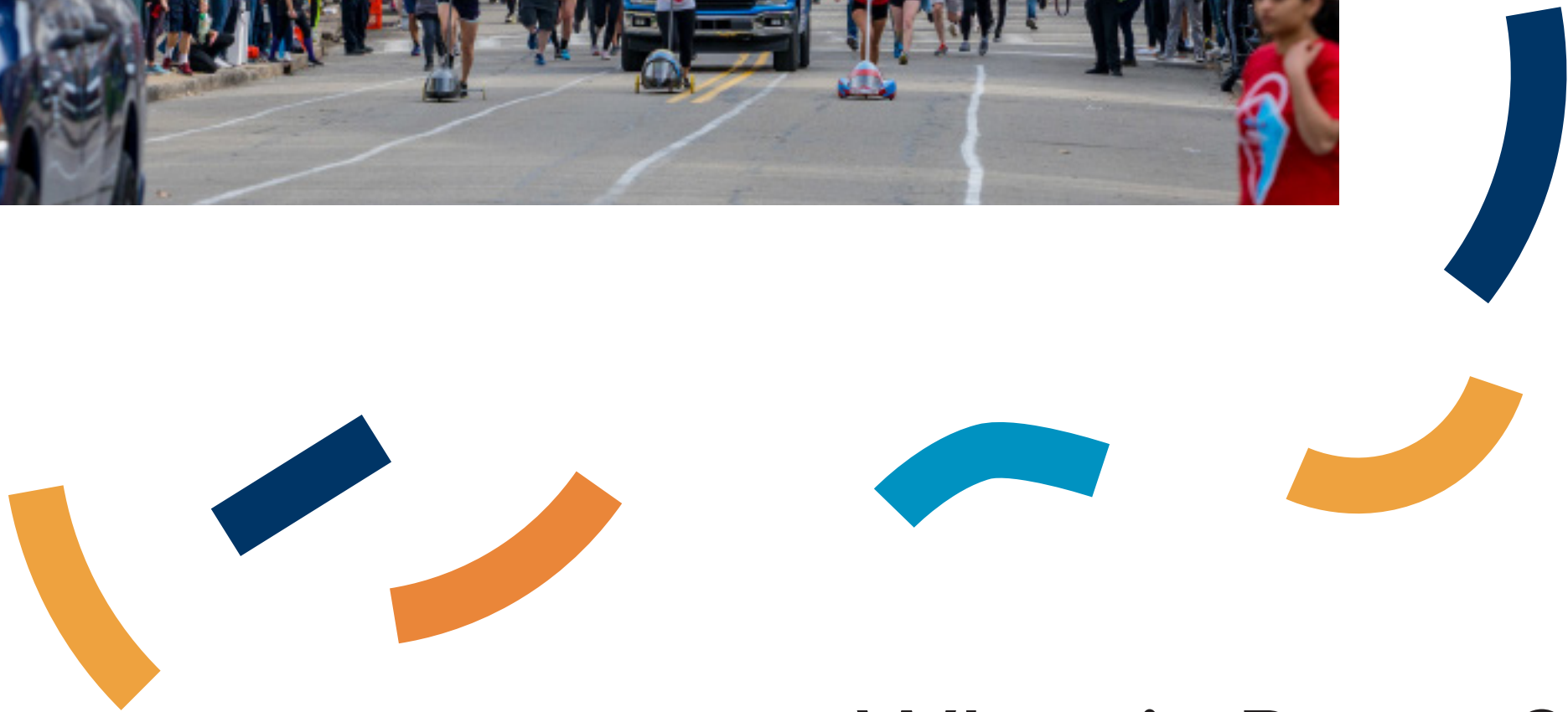
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What is Buggy?

History



1971



1983



1969

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 100-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 competition 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.





Buggy 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. Fiberglass composites became the construction standard through the early 80's due to their ease of use, and carbon fiber crept into the buggies 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.

Covid Years

In anticipation for the 100-year anniversary of the buggy tradition, the 2020 raceday was cut short by the COVID-19 pandemic. To keep the tradition of buggy alive and not lost with the graduating students, the 2021 Sweepstakes Committee (Tiysha Girdhar, Natalie Herrmann, and Bethany Bauer) worked with the University's COVID Coordinating Committee to make sure practices were held and followed all COVID mitigation strategies. This provided the teams the necessary hands on experience to keep buggy alive. Sweepstakes was able to facilitate a time trial raceday experience to showcase the hard work that teams put in last year. Although trucks, official timing and wheel treating was not allowed, the competitive spirit from the everybody was still there.

Today

Back from a two-year hiatus from the most exciting racing event at Carnegie Mellon, buggy raceday is back and better than ever and just in time for the 100th year raceday anniversary. 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 this year (snow in April, anyone?), but the teams have persevered. New buggies have rolled in, and teams have been pushing all year round, so



Phi Kap's 50th Anniversary of Streak

Streak was built and first entered competition during the 1969-70 academic year. A few seasons earlier, Phi Kappa Theta pioneered fiberglass monocoque construction with independent suspension, producing similar but less successful examples. The design effort for Streak targeted an even smaller, lighter machine with an attractive organic shape. With tight limits on time, budget, and access to advanced materials and processes, the technology for wheels, brakes, steering and body construction advanced in synchronization.

The race results that first year were promising, but were nullified by a brake test failure. The group successfully resolved to never suffer that fate again. Major changes for the 1970-71 season were undertaken to further reduce weight, as well as incorporate mandated safety improvements like crash protection, driver restraints and improved braking. Drivers needed to be members of their competing organization, so fraternities in this era heavily recruited small, light drivers to keep these tiny buggies in competition. This evolved design, a flawless appearance, new wheel technology, a new light driver and a fast and dedicated team of pushers began the era of success for the team.

The first sweepstakes competition win ever for the group was Design in 1971. Unfortunately, the new wheel technology was not quite perfected and resulted in a 6th place finish in that year's Race.

Phi Kappa Theta's perseverance with Streak came to fruition in 1972 as further dedication to component engineering, wheel technology and push team training delivered victory in the Race.

This year, we celebrate the 50th anniversary of that first Race win in 1972, along with second in Design. Streak went on to record first place Race and Design results in 1973, second in Race and first in Design in 1974, and first in Design in 1976. Sadly, Streak was retired in the late seventies, with an overall record of 6 Race trophies with 2 wins, plus 5 Design trophies with 4 wins.

So, what made Streak so well known and admired? It was small and light for the time...the era of Soap Box Derby derived wheels and no mandated driver head protection. Close tailoring to a small driver's shape, and the low-slung body enabled by the independent suspension made the buggy look tiny and race fast. A new body color each year, perfectly presented with shining metal parts, along with attention to detail and ingenious design solutions made it a favorite among Sweepstakes fans and design judges alike.

And winning races certainly insured this iconic buggy's legacy. Streak has been carefully preserved over the years, and recently restored to the color of its first Race win in 1972, commemorating the 50th anniversary. It proudly represents Sweepstakes history and the skill and dedication of those who built and raced it.



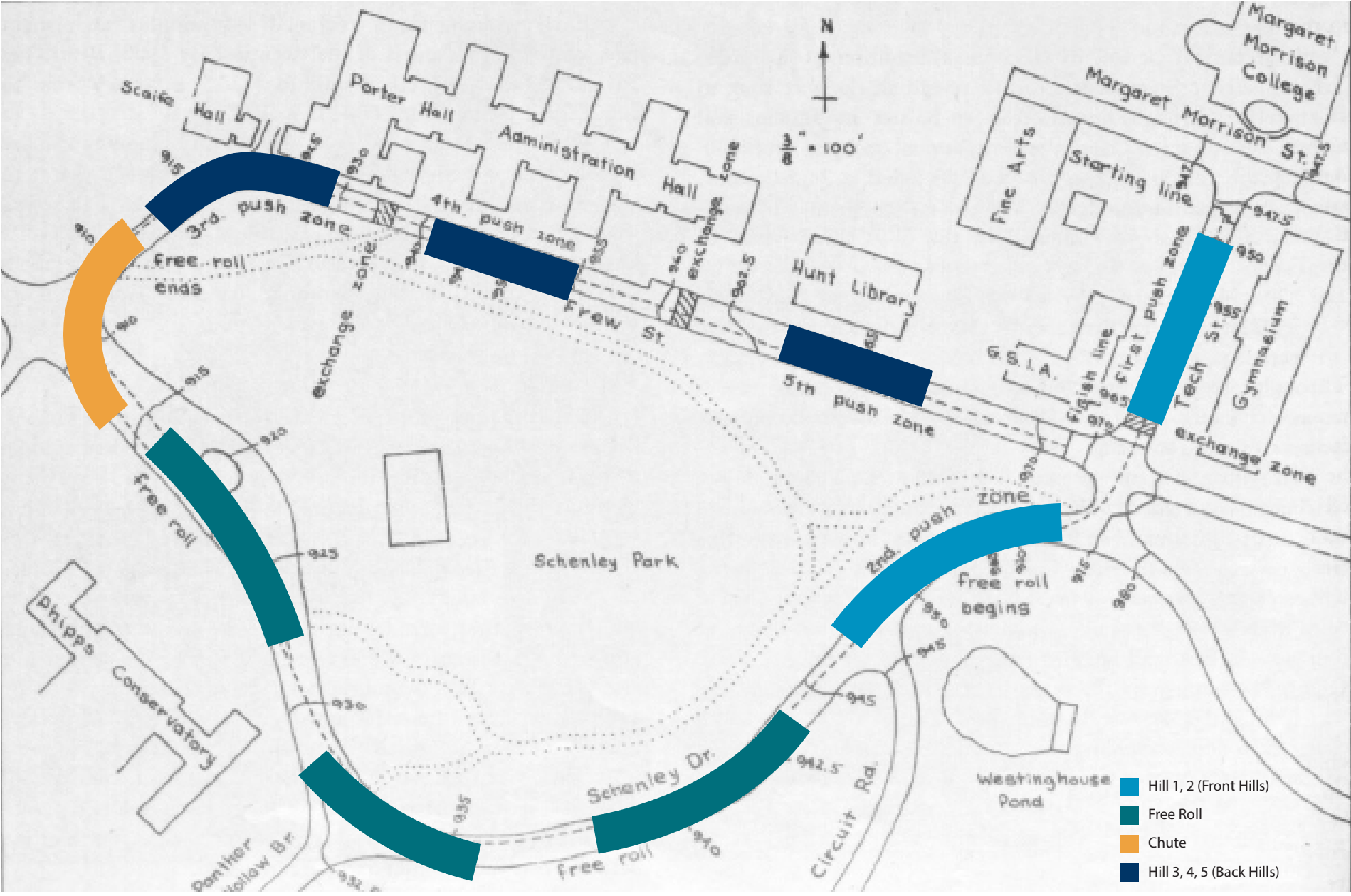
Creation of BAA

Having returned for his PhD at Tepper, Sam Swift came out for a morning roll on March 2008 and started taking photos of buggies going around the course. PiKA racing, keeping the tradition of secrecy around their buggies, took offense to this. The brothers tried their best to block his camera from taking photos. Feeling more slighted than usual, Sam collected all the PiKA Buggy photos he could find and organized them all on a website. He then sent out an email to the sweepstakes dlist sarcastically apologizing for taking photos, and as a peace treaty, released the website appropriately named pik-

abuggy.com. Coincidentally, the website had a comment functionality where old alums, including PiKA alums, would discuss the memories they had while participating in buggy. During that year's raceday, the comment section exploded into a live discussion feed about the races going on. From there, the founding members of the BAA decided that an alumni interest group should be formed. By the fall of 2008, the pikabuggy.com website appropriately changed to cmubuggy.org and the Buggy Alumni Association was formed.



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.

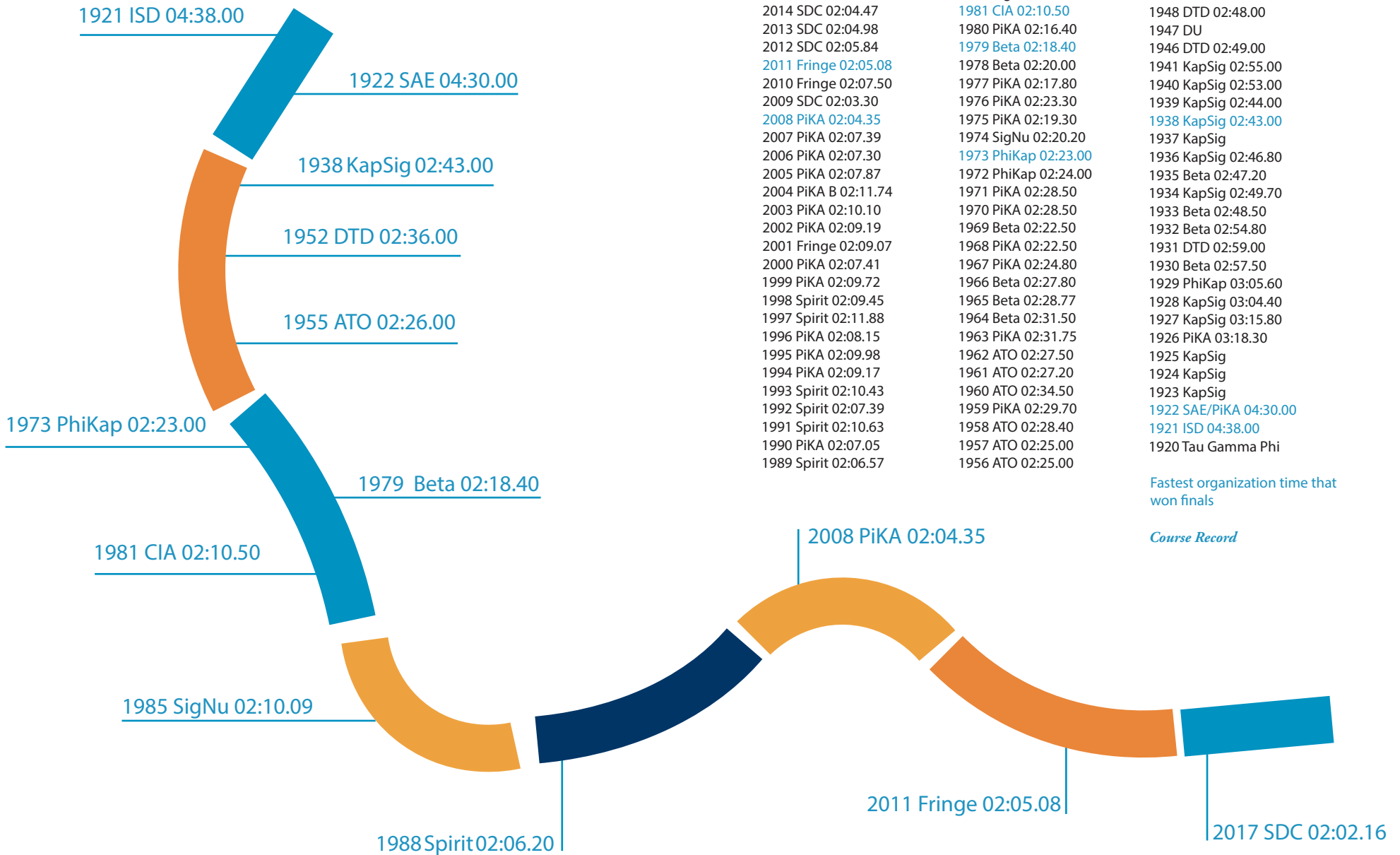
Rolls

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.

Men's Times



- *2021 SDC 2:11.30
- *2020 Covid-19
- 2019 SDC 2:06.61
- 2018 SDC 02:03.17
- 2017 SDC 02:02.16**
- 2016 SDC 02:03.10
- 2015 SDC 02:12.35
- 2014 SDC 02:04.47
- 2013 SDC 02:04.98
- 2012 SDC 02:05.84
- 2011 Fringe 02:05.08
- 2010 Fringe 02:07.50
- 2009 SDC 02:03.30
- 2008 PiKA 02:04.35
- 2007 PiKA 02:07.39
- 2006 PiKA 02:07.30
- 2005 PiKA 02:07.87
- 2004 PiKA B 02:11.74
- 2003 PiKA 02:10.10
- 2002 PiKA 02:09.19
- 2001 Fringe 02:09.07
- 2000 PiKA 02:07.41
- 1999 PiKA 02:09.72
- 1998 Spirit 02:09.45
- 1997 Spirit 02:11.88
- 1996 PiKA 02:08.15
- 1995 PiKA 02:09.98
- 1994 PiKA 02:09.17
- 1993 Spirit 02:10.43
- 1992 Spirit 02:07.39
- 1991 Spirit 02:10.63
- 1990 PiKA 02:07.05
- 1989 Spirit 02:06.57

- 1988 Spirit 02:06.20
- 1987 Spirit 02:11.35
- 1986 PiKA 02:08.67
- 1985 SigNu 02:10.09
- 1984 PiKA 02:09.50
- 1983 PiKA B 02:09.00
- 1982 SigNu 02:10.79
- 1981 CIA 02:10.50
- 1980 PiKA 02:16.40
- 1979 Beta 02:18.40
- 1978 Beta 02:20.00
- 1977 PiKA 02:17.80
- 1976 PiKA 02:23.30
- 1975 PiKA 02:19.30
- 1974 SigNu 02:20.20
- 1973 PhiKap 02:23.00
- 1972 PhiKap 02:24.00
- 1971 PiKA 02:28.50
- 1970 PiKA 02:28.50
- 1969 Beta 02:22.50
- 1968 PiKA 02:22.50
- 1967 PiKA 02:24.80
- 1966 Beta 02:27.80
- 1965 Beta 02:28.77
- 1964 Beta 02:31.50
- 1963 PiKA 02:31.75
- 1962 ATO 02:27.50
- 1961 ATO 02:27.20
- 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

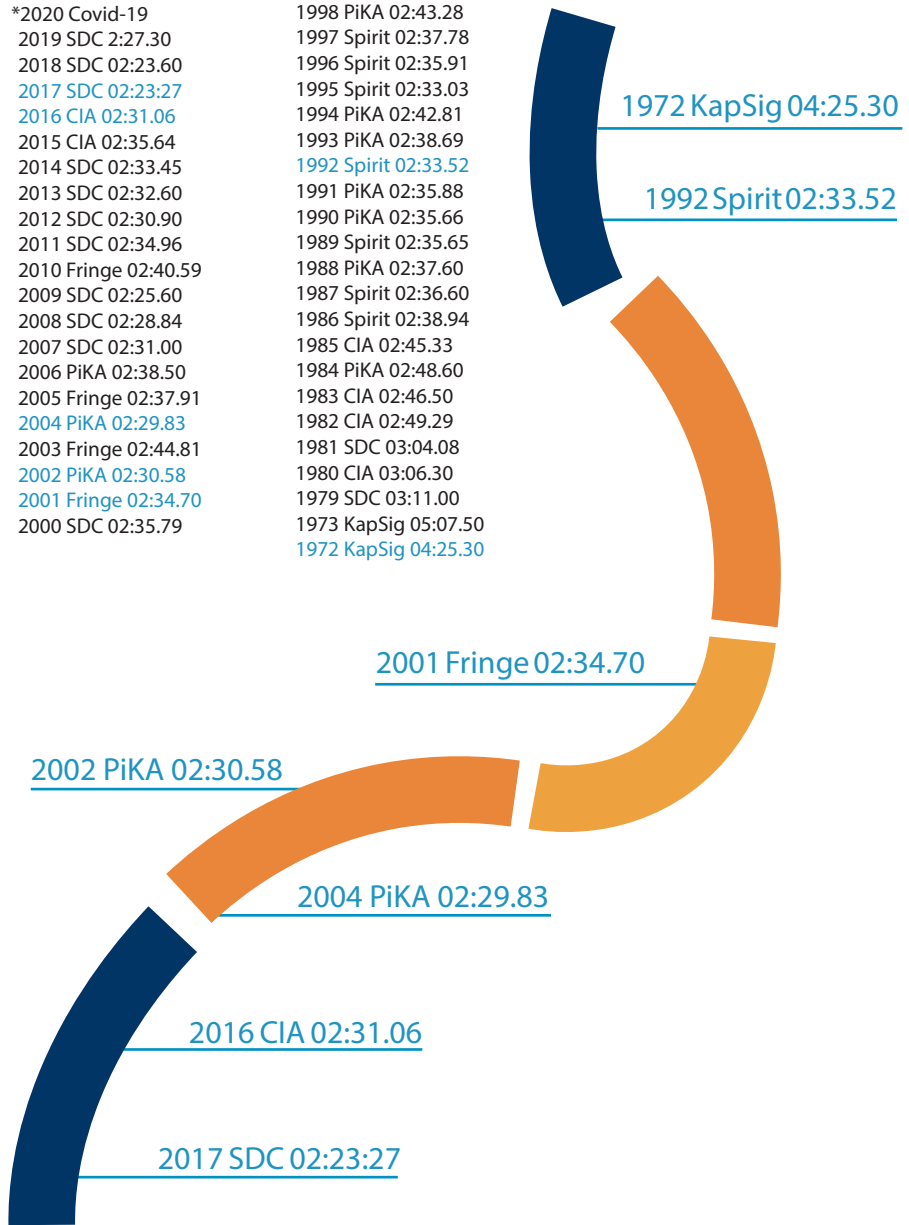
- 1955 ATO 02:26.00
- 1954 ATO 02:28.10
- 1953 ATO 02:30.50
- 1952 DTD 02:36.00
- 1951 DTD 02:41.60
- 1950 DTD 02:41.80
- 1949 DTD 02:42.50
- 1948 DTD 02:48.00
- 1947 DU
- 1946 DTD 02:49.00
- 1941 KapSig 02:55.00
- 1940 KapSig 02:53.00
- 1939 KapSig 02:44.00
- 1938 KapSig 02:43.00
- 1937 KapSig
- 1936 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
- 1927 KapSig 03:15.80
- 1926 PiKA 03:18.30
- 1925 KapSig
- 1924 KapSig
- 1923 KapSig
- 1922 SAE/PiKA 04:30.00
- 1921 ISD 04:38.00
- 1920 Tau Gamma Phi

Fastest organization time that won finals

Course Record

Women's Times

*2021 SDC 2:38.50	1999 PiKA 02:45.92
*2020 Covid-19	1998 PiKA 02:43.28
2019 SDC 2:27.30	1997 Spirit 02:37.78
2018 SDC 02:23.60	1996 Spirit 02:35.91
<u>2017 SDC 02:23.27</u>	1995 Spirit 02:33.03
<u>2016 CIA 02:31.06</u>	1994 PiKA 02:42.81
2015 CIA 02:35.64	1993 PiKA 02:38.69
2014 SDC 02:33.45	<u>1992 Spirit 02:33.52</u>
2013 SDC 02:32.60	1991 PiKA 02:35.88
2012 SDC 02:30.90	1990 PiKA 02:35.66
2011 SDC 02:34.96	1989 Spirit 02:35.65
2010 Fringe 02:40.59	1988 PiKA 02:37.60
2009 SDC 02:25.60	1987 Spirit 02:36.60
2008 SDC 02:28.84	1986 Spirit 02:38.94
2007 SDC 02:31.00	1985 CIA 02:45.33
2006 PiKA 02:38.50	1984 PiKA 02:48.60
2005 Fringe 02:37.91	1983 CIA 02:46.50
<u>2004 PiKA 02:29.83</u>	1982 CIA 02:49.29
2003 Fringe 02:44.81	1981 SDC 03:04.08
<u>2002 PiKA 02:30.58</u>	1980 CIA 03:06.30
<u>2001 Fringe 02:34.70</u>	1979 SDC 03:11.00
2000 SDC 02:35.79	1973 KapSig 05:07.50
	<u>1972 KapSig 04:25.30</u>



Past Chairmen

2022 Frank Li	1992 Alexis dePlanque
2021 Tishya Girdhar	1991 Ray Fratto
2020 Diya Nuxoll	1990 Erica Levy
2019 (Spring) Joyce Chen	1989 Chris Hansen
2019 (Fall) Hunter Rideout	1988 Louis (Gino) Cosentino
2018 Camilla Xu	1987 Shawn Stufft
2017 Enosh Shachar	1986 Gretchen Von Grossmann
2016 Edward Cao	1985 Luan Denny
2015 Elon Bauer	1984 Nancy Burns
2014 Lars Wander	1983 Sandy Ruscin
2013 Josh Hixson	1982 Elaine Andrysick
2012 Anthony Pacella	1981 May Slava
2011 Chris Shellhamer	1980 Janet Danek
2010 Jessica Thurston	1979 Marianne Dwyer
2009 Andrew Hundt	1978 Gerd Beckmann
2008 Mizel Djukic	1977 Mark Gardner
2007 Mike Rem	1976 Joan Bothwell
2006 Arnold Oh	1975 Dave Kanner
2005 Sara Player	1974 Dary Turner
2004 Janice Golenbock	1973 Don Dietrich
2003 Janice Golenbock	1972 Jeff LaRochelle
2002 Scott Wabnitz	1971 Jeff LaRochelle
2001 Scott Wabnitz	1970 Harold Herre
2000 Debby Keller	1969 Robert Gebbia
1999 Debby Keller	1968 Jim Wentz
1998 Dani Barnard	1967 Mike Smolens
1997 Fiona Bedford	1966 Paul Magnuson
1996 Greg Dupier	1965 Roger Powell
1995 Pete Harllee	
1994 Demian Johnston	
1993 Alexis dePlanque	



The Tales



Tale of a Chairman

Samuel Thompson, CIA Chairman

Everything is so cold at 4am. Your phone is cold while you dial wakeup calls to the mechanics. Your hands are cold while you carry things across campus to the tent. Your coffee is cold because by the time you have a chance to drink any without something chaotic happening, rolls are already over.

Being a chairman for one of the teams is about more than being the coldest or the sleepest person at rolls, though. It means arguing with Sweepstakes at 6am, arguing with Sweepstakes at chairmens', and arguing with Sweepstakes during class because that's when they sent out that email. It means advocating for your team and taking every opportunity you can to make things easier for your officers. For every google form you don't submit until 30 minutes after it's due, there's a team member to drive home from

the airport, or a graduating senior yard sign to deliver, or a box of donuts to eat so it doesn't end up attracting every ant in Pittsburgh to the garage.

You get to be grateful every day that you have people you can count on to take care of the things you forget, especially when you work with a partner. It's such a unique position to get to know and trust everyone on your team, to learn about how they work together and watch out for each other. Even though officers meetings can get boring and tiresome or heated and frustrating, every one of them is a chance to see the people who make you smile every week.

When you're a chairman, you know that everyone in that dirty, faded hoodie in your team's color is your family for the year. Families have ups and downs, but you wouldn't trade them for anything.





Katy as a child in the buggy her mother drove: Black Magic

Tale of a Driver

Katy Zapanta, PiKA Head Driver and DG Chairwoman

Buggy has always been in my blood. Many, many years ago, my mom opened the door of her apartment to a scrawny boy holding a bouquet of flowers for her. As her C team Hill 5 pusher, my dad bravely volunteered to deliver the pusher's gift to their driver - mostly because he had an ulterior motive.

Growing up, my parents instilled their love of CMU to all of their children, taking us to Spring Carnivals and waking us up to watch buggy livestreams. I remember crawling into a Fringe buggy when I was eight or nine years old and very recently climbing into the shell of CIA's "Black Magic" - my mom's buggy - and making fun of how huge and boxy the frame was. I grew up with my parent's friends, former CIA mechanics and chairs, even one former SDC chair, and their love for buggy was strong. From a young age, I knew that buggy meant one thing: family.

When I came to CMU and had never grown above 4'11", I knew I had to

drive. From the first moment going down the hill, the mixture of terror and awe and pure adrenaline, I was absolutely hooked. Not only was I able to share this indescribable feeling with my mom, who was the only one who knew exactly what I felt like, my Dad pushed me in my very first Race Day in 2019, in an exhibition race. While it was the slowest hill I've ever experienced (seriously Dad I was going backwards) I will treasure that moment forever.

While Race Day can be overwhelming and we get caught up in the nervousness, the adrenaline, and the animosity, let's all take a moment to remember that family is the reason we do this, whether that be the families we are born into or the ones that we chose. I've never met anyone more driven than my mom and my dad continually pushes me to be the best version of myself. I am incredibly honored and grateful to share this weird, fun, insane, 100-year-old tradition with my family.



Tale of a Pusher

Anna Yu, SDC Push Captain

As a mere junior, I've yet to participate in a true in-person Raceday. Having only heard about the tales of adrenaline highs and roaring crowds, crisp morning rolls and the few sprinklings of late night push practices are what make up my tale as a pusher.

Perhaps it's entering a state of lunacy after waking up at 6am as a night owl, or having the opportunity to push my driver housemate during all ungodly hours of the day, or embracing the role of that annoying whoop-er at rolls, being a pusher has truly been a fantastical escape from all academic responsibilities. There really is nothing quite like the realization of needing to push hills 3 and 4 after seeing your buggy calmly waltzing down the chute with 3 bags. Or witnessing a new pusher, oblivious to the craft of pushing, become oddly entranced with their new skill and hearing a driver greet them for the first time through a buggy.

What has been consistent is the wondrous sights of standing at the bottom of hill 4 during sunrise when the skies are still tinted with a pastel pink, orange hue behind the seemingly plastered landscape of Cathy and Pittsburgh's hilly neighborhoods. Then watching buggy after buggy roll down the free roll and hearing them in all their crackling and rumbling manners. Moving along the back hills, there is always excitement standing at the bottom of hill 5 waiting for your buggy to come and seeing the heads of hill 4 pushers poke out from the long journey traveled from the bottom of Flagstaff. Such small but deeply embedded memories will never cease to make me crack a smile.

But at the end of it all, to all my teammates, all my fellow pushers, friends on other teams, to everyone who's helped

make buggy happen, thank you for putting up with me and thank you for all the priceless memories that I have received within this community. Past all the random rolls banter, pusher chocolate bars, gym introductions, and Thursday night bonding, I cannot thank you all enough for being my oxygen and dealing with my pandemonium. It does feel weird to write this as someone who's been doing buggy for two and a half years now but, I cannot wait to see everyone looking fabulous on raceday and finally being in the palpable excitement of it all.





Tale of a Mechanic

James Wong, Fringe Head Mechanic

For some students, Buggy is just a race that happens once a year. For others, it starts in the Spring, when the weather starts warming up enough to push. If you're under 5 feet, it may start in the Fall, as every team starts eyeing you up and asking if you want to do a fitting. For mechanics, Buggy is an ongoing process. The seeds for your next design are planted as soon as you pack up your truck on Raceday.

It's always a thrill meeting the new mechanics. Buggy is the kind of unique sport where nobody knows anything coming in – you build that knowledge from the ground up. Over the year, you come together through finding out you have big hands, in the early mornings and late into the night. Interspersed in the manic energy of getting high on chemical fumes and ruining another pair of pants with epoxy, slowly learning more about each part of the buggy.

Mechanics are the bedrock of the team. Checking in on the drivers to make sure they're safe. Delivering perfectly-tuned buggies to pushers on the front hills. Each week you strive for more – more

time at rolls, more help to get the brakes machined, more snacks from Entropy as builds drag on longer than anticipated, an extra hand to flag or barricade. You and your fellow mechanics step up to every challenge thrown at you.

Soon enough, you've built a new buggy together and it's Raceday. While the announcers blare the names of the team racing in the next heat, you're frantically trying to get our wheels to the perfect temperature, locking the driver into the safety points, doing final brake checks, and timing exactly when to carry out the buggy from the truck. Once the wheels finally hit pavement, the race is out of your hands. For all you've learned, all the hours you've put in, all you can hope is that you've put the most capable vehicle in the hands of your team.

The next two minutes are a mix of tension, joy, and relief. After those two minutes, after the exhilaration of Raceday subsides, the quiet pride sets in. Through the chaos of the year you've made it, ready to let your family continue on the cycle of mechanicing.



Sweepstakes



(From left to right: Sam Wong, Joanne Tsai, Vicki Wang, and Bethany Bauer)

In Memory of Joanne Tsai

Joanne Tsai was an Apex driver and a beloved member of the buggy community. She drove Azula as a freshman for Raceday 2019 before passing suddenly in 2020. In Apex's words, Joanne was one of the warmest, friendliest, and most reliable people any of us have had the pleasure of meeting. She handled frigid, early rolls with a smile and a snarky attitude. She was always willing to give us her all, fitting herself into our tightest, most uncomfortable buggy with a positive(-ish) attitude. While she may have been driver-sized, she had more

strength and resilience than anyone. She faced every hurdle with stubbornness and determination, and she never gave up or stopped caring about her friends. She was hilarious, wicked smart, and, above all, a great teammate and friend. We love Joanne, and her friendship and warmth made all of our lives infinitely better. Joanne lives on in all of us, and it's up to us to make the positive impact in the world that she would have wanted to make. Her kindness and spirit continue to radiate outwards, and our hope is that she knows the effect she had and continues to have on the people around her.



Sydney Baker, Assistant Sweepstakes Chairman

If you'd have asked me two years ago to run for Sweepstakes, I probably would've laughed and gestured dramatically at whatever fire-engine red article of clothing I happened to be wearing that day. I can't say this is how I envisioned my fifth and final year in buggy, but then again, just about nothing about the last two years has gone according to plan. As a washed-up ex-head mechanic who was never in charge of a Raceday, I was uniquely underqualified for Sweepstakes, and yet I'd be lying to say I wouldn't sign up for Assistant Chair again given the choice. I'm indebted to buggy in more ways than one, and it's been an honor trying to help bring back the sport that made my college experience

everything it was.

Thank you to Jeremy, McCue, Connor, Tishya, and the remainder of the BAA officers and membership who supported us over the course of this year. Thank you to the small but encouraging subset of buggy chairmen who pretended to find me funny at meetings (and for all of your patience and feedback). Thank you to Vidya, who'll never forgive me for mentioning her by name, but who carried me through three years of buggy leadership and more. Lastly, thank you to Apex for making the last five years worth every second—I never thought I would leave my team, but I'm in awe of everything you've been able to accomplish, and I'm proud to call myself one of your alumni.

Good luck to all of the participating teams this year! To the Classes of 2023+, I'm so excited for Buggy100+ to be your first real Carnival. To the 2022 chairmen and team leadership, I can't overstate how much I admire your dedication and resolve. The passion I've seen this year from each of the teams has made buggy possible and Sweepstakes worth it in a way I couldn't have imagined two years ago. I sincerely hope I've helped make the transition into this Raceday a little bit easier, and as unpredictable and chaotic as the last few years have been, thank you so much for allowing me to serve as 2022 Assistant Chair.

Frank Li, Sweepstakes Chairman

Freshman year, spring semester. I was in a tremendous valley back then and suddenly got really involved in Buggy. It was this unique, competitive, and crazy activity that completely turned my life around. Since then, I've devoted as much of myself as I could to CIA, serving as the treasurer, push captain, and assistant chairman. When I was asked to move up to Sweepstakes, I knew I had one last duty to fulfill.

During this ridiculous year as Chairman, I have seen so much more than I could have ever imagined four years ago. From the endless chores and meetings to the thrill of sending a team down the freeroll and watching them crest over the backhills illuminated by the morning sunrise, I have become so grateful for the coordinated efforts and endless dedication of everyone. By all means, Buggy should not exist. On top of the combination of engineering, athleticism, and logistics only CMU could foster, we battle the cold, the potholes, the rain, the chores, the pandemic, the sheer manpower and time requirements, all during weekend mornings before the break of dawn.

Yet, Buggy (and Raceday) always returns thanks to student enthusiasm and alumni support. A special thanks

to Nahyun, who I would not have joined Sweepstakes without her as my safety, and Kaycee, who helped lower the immense learning curve of being Chairman. My assistant chair, Sydney, is absolutely irreplaceable and I would not be the man I am today without her stepping up and providing counsel. To Vidya, Jon, Elizabeth, and everyone else that devotes 110% of their energy and 25 hours a day to Buggy, I thank you from the bottom of my heart for helping us bring Raceday back for its proper centennial celebration. It has been an honor serving you this year and I look forward to the most spectacular Raceday yet.



Jonathan Hua, Buggy Book Chairman

As a young freshman walking down the cut and seeing all the independent organizations with their buggies, I thought my biggest involvement in buggy would be showing up to a couple of meetings. Four years later, I find myself running PiKa racing



as Chairmen and Head Mechanic along with becoming the buggy book chairmen for sweepstakes. There really is no other place like CMU where students, on top of their schoolwork, will stay up all night during the weekends to make sure a handmade tube that fits a small girl goes around the road at 30 miles per hour. Having the opportunity to be a part of the group of people that are behind the logistical challenge of not only weekend rolls, but an in-person raceday has been eye opening and a privilege to me. It has been an honor to leave my mark on the buggy community whether that be a chairmen, mechanic, or Buggy Book chair. Thank you to the rest of people on sweepstakes, Kaycee, and the BAA for helping me document another year of the crazy sport we call buggy. Thank you to Michelle Dang for designing the Buggy Book itself.

Also the jacket is always a plus.

Nahyun Kim, Safety Chairman

Hello to all who are actually taking their time to read these words that took me forever to put together. So here we go, the tales of how Nahyun got involved in buggy, a reflection of being involved in buggy, and a list of thank yous.

I never knew that chocolate chip pancakes can have such great power in luring a short person into driving a buggy. During the first week of fall 2018, I was approached by Bobby Chen who was wearing a bright CIA yellow (quite debatable if it was THE right color) t-shirt handing out chocolate chip pancakes during recruitment week. He said, "hey, you look short enough to drive a buggy" and handed me a CIA business card. With the curiosity of wanting to find out if I could actually fit in a buggy, I put my name down on the interest sheet.

A few weeks later, I was put in a carbon fiber tube and pushed down a hill at 7 am on the weekends. Although there were times I was confused about what exactly was happening at extremely early morning of the weekends but there wasn't a single time I didn't have fun on the course. Shivering in the buggy, the heat tunnel during breaks, Jean's amazing breakfast, Frank meticulously trying to figure out his hill 2 push-off, taking naps on Maggie Mo heater, Janet doing her homework at 5 am at rolls, Tori and her random bruises in Tempest, me taking forever how to drive in a straight line in a forward trike buggy. These were memories that I will cherish forever.



And a few years later I became safety chair of sweepstakes. Feeling too old and fragile to drive, I wanted to take more of a supporting job for my colleagues who were participating in this unique sport. Thank you to everyone who supported me in doing this job to the best of my ability. Drivers - thank you for being brave and amazing on the course, Chairmen - thank you for your dedication to buggy and your patience in scheduling capes, Frank - thank you for letting me drive Lou during rolls, Sydney - thank you for joining sweeps, Connor - thank you for chasing the angry geese off the roads, I am absolutely terrified of animals. Finally, I am very grateful for my parents and my family who have supported me in all steps of my life. I don't think anyone in this world would stay up late to watch race day live stream at 1 am.

Good luck to all the teams and it was an honor to be your safety chair for raceday 2022.



Elizabeth Zapanta, Design Competition Chairman

I truly do not remember when I was first introduced to Buggy. My godfather was one of the first to design the Buggy Board, I knew many other CMU "aunts and uncles" who were involved in one way or another, and my parents, both Buggy alumni, could not discuss their college years without mentioning the longstanding tradition. Naturally, I knew about Buggy and its legacy.

I remember my amazement learning

that my mom drove one of those things while my dad was her Hill 5 pusher. Then I actually went to Carnival and experienced my first Raceday, juicebox in hand and photo evidence next to Black Magic. Growing up, there was never a Raceday where we didn't watch, either in person or on the livestream. I fondly remember commentary about chute turns and making sure there was a hand on the pushbar to cross the finish. When my sister became a first-year, it was obvious that she was going to be involved. She drives the course for her final Raceday this weekend.

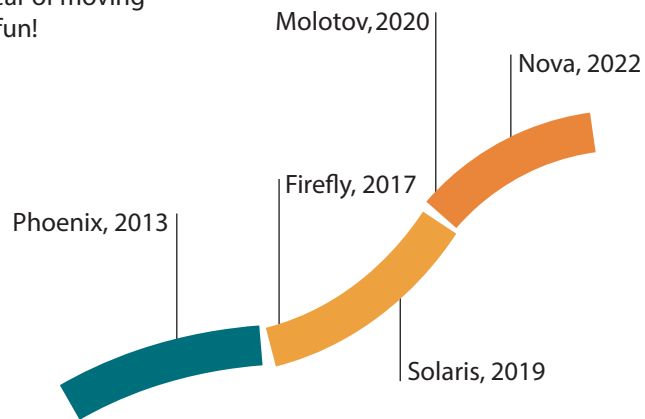
I'd always said that I wanted to be on Sweepstakes, partially because I just wanted to be one of the people who got to ride in the back of the follow truck. As a first-year, I didn't expect to be Design Comp Chair, yet here I am organizing the annual Buggy showcase. Mom and Dad: thanks for introducing me to this strange sport; Katy: drive a nice line and leave it all on the course; Josh: keep providing me with all of your Raceday stats; Sam: Get some sleep and have fun; and to all of the teams: best of luck this weekend. Buggy is truly a family affair and I am excited to experience my first Raceday as an official Tartan.



The Teams

Apex

Apex Buggy is CMU's newest independent buggy organization, founded in 2012 by a group of friends in Rez on Fifth. Now, we're recognized across campus as one of the fastest-growing buggy teams and one of the only fully open-source teams on the course. With a focus on research, innovation, and involvement, we're excited for another year of moving upwards and having fun!



- Chairman** Eshita Kar
- Assistant Chairman** Alison Shively
- Head Mechanic** Isabel Vala
- Build Lead** Elena Harlee
- Assistant Head Mechanic** Aviva Young
- Push Captain** James Frucht
- Head Driver** Amanda Vallon
- Treasurer** Alan Gallardo
- Social Chairs** Sydney Hsin
- Drivers** Leah Restad
- Margaret (Maggie) Blair
- Rebecca Derham
- Katherine Karl
- Leah Restad
- Amanda Vallon
- Tianxin Xu

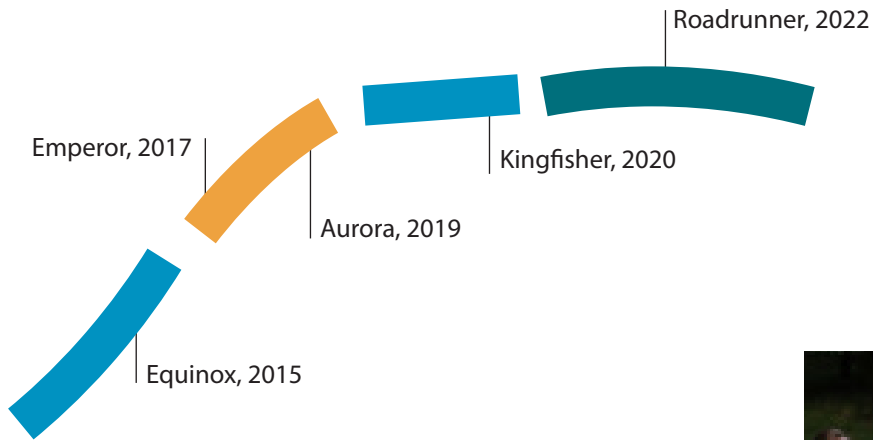
- Team Members** Karen Abruzzo
- Kayleigh Boyle
- Brian Check
- Jonathan Chen
- Viola Chen
- Sam Green
- Alexis Giauque
- Juno Hoffman
- Robert Petruska
- Marian Qian
- Harry Ren
- Caity Santiago
- Evan Shi
- Anna Watson
- Kit Zivin

- Special Thanks** Ray Barsa
- Dave Bertucci
- Chris Calder
- Jerry Carlson
- Ethan Gladding
- Stephen Greco
- Connor Hayes
- Pete Harlee
- Veronica Jaime
- Chris Kaffine
- Alek Kirchmann
- Adam McCue
- Ian Rosado
- Rachael Schmitt
- Sam Wong
- Trevor Decker

Reid Averill
Nate Perry

Many thanks to all of our special mentors and alumni who have helped us over the years!

CIA



- Chairs** Sam Thompson
Amy Germer
- Head Driver** Tori Ciplickas
- Head Mechanics** Ethan Husted
- Nate Klein
- Ryley Starta
- Build Leads** Leo Nicolussi
- Christina Zhou
- Push Captains** Alfred Chang
- Andrew Spoto
- Social Chairs** Sona Marukyan
- Jasmine Cheng

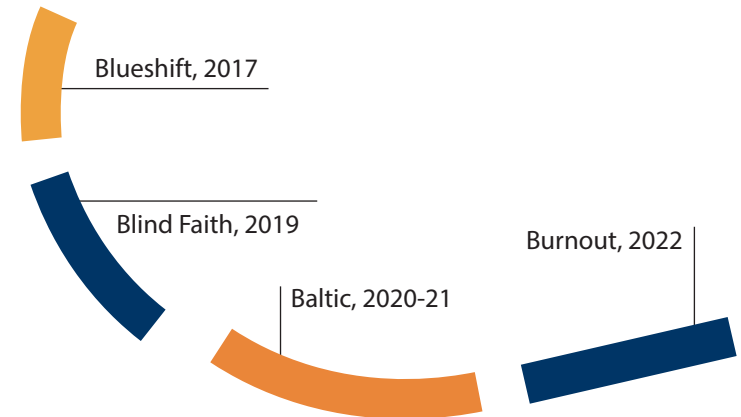
- PR Chair** Nisha Bhargava
- Alumni Relations** Leo Hasher
- Treasurer** Joshua Cheng
- Secretary** Olivia Erhman
- Design Chair** Victoria Huang
- Nerds & Webmasters** Janet Li
- Erin Yan
- Faculty Advisor** Natalie McGuier
- Drivers** Tori Ciplickas
- Janet Li
- Audrey Young
- Grace Conard
- Julia Liu

Special Thanks: Our incredible alumni have been vital in our continuing success through the pandemic. We couldn't have kept CIA together without help from Frank & Lou, and our recent grads (2020 & 2021) have given more than we could ever ask for!

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!

Fringe

Fringe was originally founded by a group of architects in 1969, but has since expanded to encompass students across the school, engaged in all manners of activities across campus. This year, we were challenged to break through the barriers of two years of Zoom burnout, shop renovations, and fewer hours in the shop and on the course. Despite these setbacks, we are proud to put forward our newest buggy and a new team of mechanics, drivers, and pushers brimming with talent. Fringe ready? FRINGE ROLL.



Chair Maya Liu, Olivia Corrodi
Head Mechanic James Wong
Head Driver Melina Imamura
Men's Push Captains Jason Chadwick
Women's Push Captain Adrian Kager
Drivers Ashton Jones, Melina Imamura, Asumi Gibeau, Ihita Mandal, Anika Ramachandran, Kyrsten Denise Rioveros, James Wong

Mechanics Bhairavi Chandrasekhar, Daniel Lu, Andrew Thrasher, Erica Chiang, Rebecca Dettmar, Rita Paixao, Rachel Yuan, Rhea Kalra, Anika Banga, Erin Zhu, David Cohen, Seema Kamath, Ella David, Ariana Kasperski, Winona Wang, Logan Meritz, Annie Liang, Tanvi Bhargava, Izzy Gloria, Katherine Wu

Special Thanks: We would like to thank Tammi Wong, John Dier, Graydon Loar, Edward Wong, Clarence Imamura, Lena Dunn, Daniel Benjamin, Amy Load, Phillip Loar, and the Blackboard Giving Fund. We would especially like to thank our sponsor, Conturo Prototyping for providing us with machining services to have the best parts possible this year.

No Thanks: COVID-19, geese, math, that cold fan in the Froom, new wall, Pittsburgh weather, idioms, new epoxy, construction, people who ignore barricades, owo



After watching the RD 2019 races, the women of Delta Gamma asked themselves, “why don’t we do Buggy?” and thus the DG Racing team was born. Katy Zapanta and Sophia Battaglia, buggylegacies who grew up coming to race day, were tasked with creating the new team. Three years later, DG Racing will see its first raceday and the goal is: just get around the course.

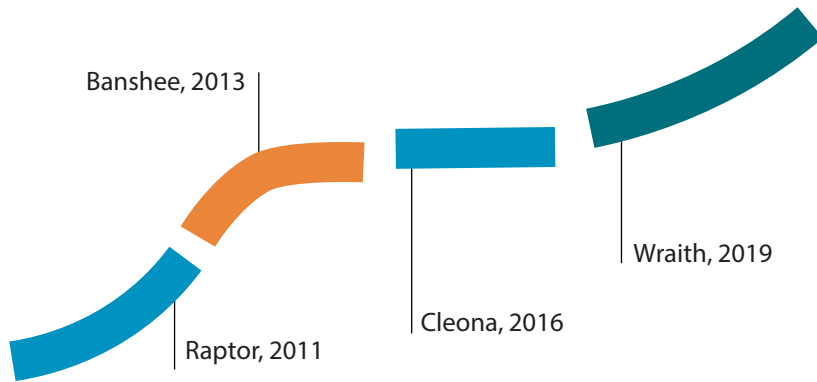
- Chairs Sophia Battaglia
Katy Zapanta
- Head Mechanics Liz Flory
Lindsay Lambert
- Assistant Chair Autumn Soukup
Sophia Witt
- Driver Claire Chen
- Push Captain Sarah Chen

Special Thanks: Sofia Sill & Morgan Schaming for supporting the start of this program, and Jake Muskovitz, Jeremy Tuttle, and Sydney Baker for answering every question.

Brazen, 2001
Loan from Fringe

PIKA

You either die a hero or live long enough to see yourself become the villain.



Chair/Head FOAD Jonathan Hua
 Wheel Man Mason Loyet
 Push Team Captain Phillip Wellener
 Daniel Belardi
 Emily Archer
 Head Driver Katy Zapanta
 Drivers Katy Zapanta
 Juju Nieto
 Elinore Tulman

FOADS Jonathan Hua
 Mason Loyet
 Phillip Wellener
 Daniel Belardi
 Arel Shoua
 Colin Daniel
 Henry Scavone
 Nikita Tcherevik
 Leo Badakar

Special Thanks Rob Levin
 Aaron Silverstein
 Ryan Barrett
 Justin "Squid" Belardi
 Nick Calzolano
 Tom Wood
 Dave Conley
 Keshav Raghavan
 Sean Sechrist
 and all the continued alumni support

SAE

SAE Buggy has been around since buggy first started in the 1920s. After a couple of years without buggy due to COVID, SAE is sporting a nearly new team of young members. SAE has a brand new driver Carleigh Cusick, who looks to be driving for the next few. With a predominantly Sophomore team all new to buggy, SAE's future is bright!

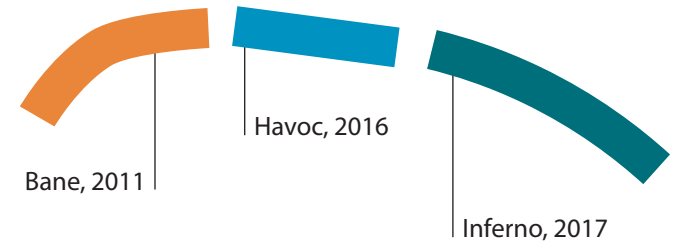


Eileen, 2018

Chair Eric Grynberg
Driver Carleigh Cusick
Head Mechanic Eyal Davidov
Push Captain/Past Chair Spencer Bowman

SDC

In SDC Buggy, we're proud to represent our dorm student community through the hard work, friendships, and fun we have together. We're always striving to improve and pay attention to every detail. We foster an innovative spirit while respecting and building upon the great contributions of our alumni before us. As our fellow insomniac would say, "May I never be complete. May I never be content. May I never be perfect."



Special Thanks: Jeremy Tuttle, Molly, Gruza, Ray, Drevin, Boyao, Danny, Annie, Nicole, Jordan, Camilla, Joyce, Gracia, Ryan, Chris Goode, Connie, Wade, Eddy, Kyoko, Isabelle, Mike Darcy, Alex Roman, Sunny & Laura, GLong, David & Kathy, Gessner, Jing, Jon G, Alex Y, Ian Price, NickMo, CSM, Michelle & Nat, Jake, Derek, Dan & Katelyn, Omer; all alumni; Tera Monroe, Lila, and SDC GenBody; Sweepstakes; and our friends, fans, family, and supporters. SDC Ready?!

Head Mechanic Alex White
Head Driver Suzanne Nie
Chairman Anna Yu
Assistant Chairman Devank Agarwal
Push Captains Kevin Liu
 Erin Magid
 Anna Yu
Drivers Suzanne Nie
 Chloe Hess
 Eunice Lee

Mechanics Alex White
 Alice Ho
 Andrew Yang
 Anna Yu
 Cathy Chen
 Devank Agarwal
 Diya Handa
 Elliot Escalante
 Sara Gibson
 Ethan Huang

Gordon Xu
 Haqq Coulibaly
 Javier Farias
 Jeremy Dropkin
 Kevin Kim
 Lewis Rockwell
 Nnenna Nwaigwe
 Paul Gonzalez
 Scott Rothbaum
 Seanna Fess

Sidney Nimako
 Steven Jackson
 Steven Lee
 Yuma Matsuoka

Pushers Ace Engel
 Adam Bournes
 Adam He
 Alex Nelson
 Anna Yu
 Benjamin Graham
 Carmen Hagerty
 Chris Huynh
 Clayton Edwards
 Elliot Escalante

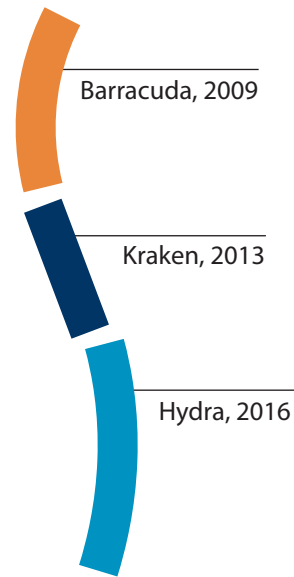
Eric Cheng
 Erin Magid
 Gerry D'Ascoli
 Gordon Xu
 Grayson Moyer
 Hailey McDonald
 John Huemme
 Kevin Liu
 Keltin Grimes
 Liam McDowell

Matthew Garcia
 Minwoo Eom
 Nathan Wai
 Neville Caceres
 Olivia Tomm
 Seanna Fess
 Ryan Flammer
 Sabrina Suhkin
 Twain Byrnes
 Trey Dubose

Will Foy
 Yuma Matsuoka
 Zoe White

Sig Ep

Founded in 1998, SigEp Racing is a team made up of a Men's and Women's team, the Men's team being members of the Sigma Phi Epsilon fraternity, and the Women's team being friends of the chapter. Aligning with the national organization's values of virtue, diligence, and brotherly love, SigEp Racing is committed to a healthy balance of intense competition and intense fun while doing it. In the current year 2022, after years of lost experience due to COVID-19, the team is looking to solidify a strong competitive foundation to be built on further for years to come.



- Chairs** Jack Winters
Emma Cohron
Lazar Andjelic
- Head Mechanics** John Martins
Mia Krishnamurthy
- Push Captains** Phillip Johnson
Stephanie Erickson
Kierstyn Cassidy
- Drivers** Emma Cohron
Elizabeth Lee
Julian Adler

- Special Thanks:** Carl Young
Taylor Tabb
Freddie Dean
Liz McCullough
Tynan Tinley
Jean Paul Nelson
Beccy Zheng
James Gualtieri

SigEp Vice President of Programming

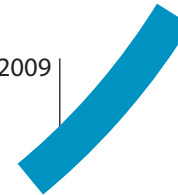
Sig Nu



Buggy is a central part of Sigma Nu Fraternity, as we have been competing in Buggy since 1920. Our chapter, with support from our fantastic alumni, is looking forward to competing in buggy this year and for many years to come. We are excited to bring our competitive spirit and new innovations to the sport and hope to carry our upward momentum into the coming years.

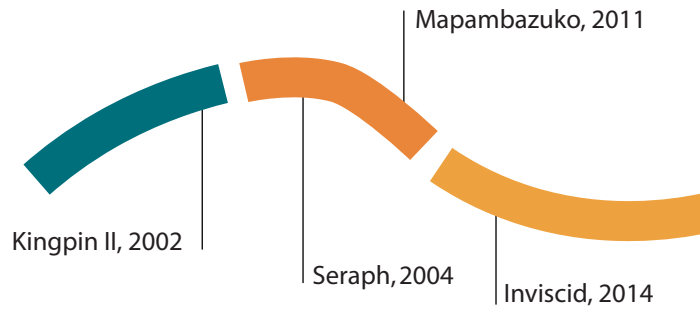


Krait, 2009



- Chair/Head Mechanic Dan Xiao
- Assistant Chair Philip Kaufholz
- Drivers Dylan Bonnano
Seanna Fess
- Special Thanks Mark Estes and Duane Delaney for their general buggy knowledge and helpful advice (and garage space)

SPiRiT



SPiRiT Racing Systems is a multicultural organization and a facet of SPiRiT. SPiRiT strives to bring inclusivity, pride, and excellence to the sport of buggy. Born in the fall of 1984, it took just 2 years for SPiRiT to place first in women's, and in 1987, SPiRiT were champions in both men's and women's. In 1988, SPiRiT won again in men's, this time with a track record of 2:06.20, which would remain unbeaten for two decades. We are competitive, but above all, we are family. Our innovation and our resolution, together with history and our alumni, make us who we are today.



To our team of pushers, mechanics and adjacent, drivers, flaggers, media and design, and supporters, we appreciate your time and dedication to the sport of buggy, and most of all to one another. It's been a challenging and fun ride, and our biggest hope is that you walk away with something memorable, and have a fun Raceday for the first time in a long time! We love you all.

NFJ
RISE

HMFCs Maame Conduah
Noni Shelto
Cynthia Xu

MFICs Jacob Abrams
Nana Anokye
Sebastian Bernal
Rubin Chen
Jose Garcia
Stuart Johnson
Gloria Moon
Dylan Pollak
Alexander Shepard
Anishwar Tirupathur
Chloe Wen
Jimmy Zeng

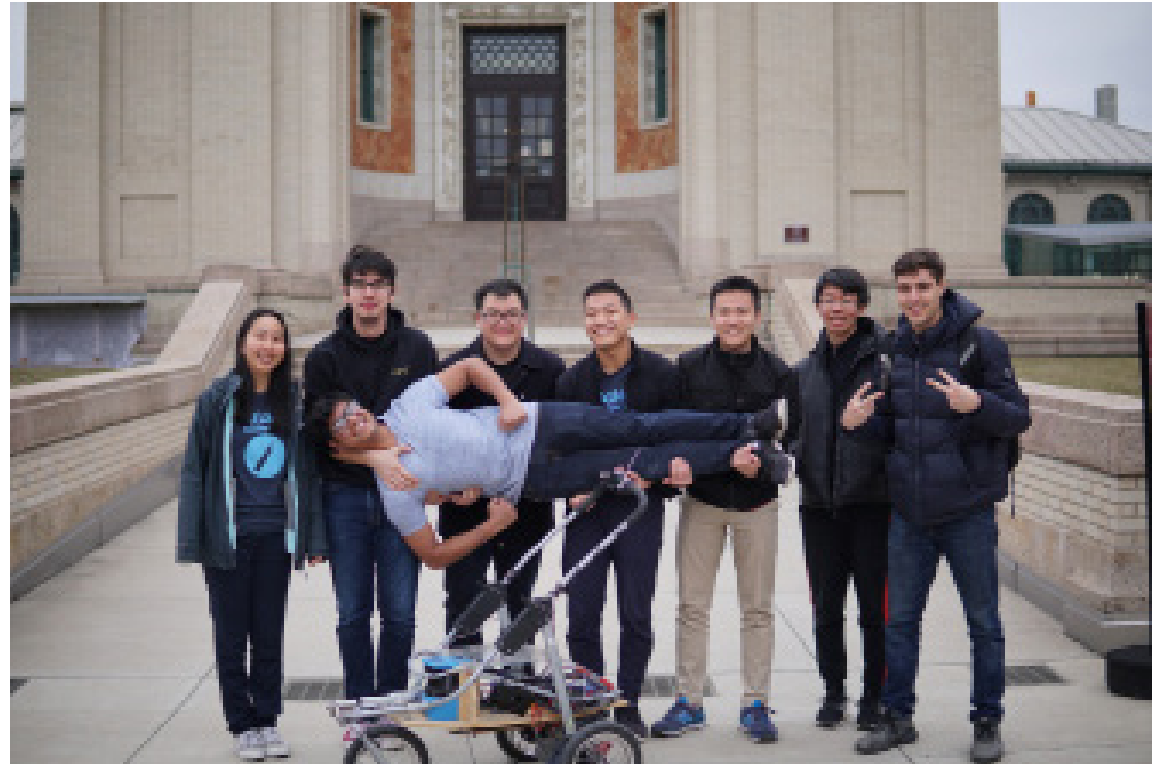
Drivers Chloe Lenker
Gloria Moon
Melina Castillo
Lara Witwick
Avi Wong
Cynthia Xu

Mechanics Rubin Chen
Jose Garcia
Stuart Johnson
Emanuel Abiye
Rosina Ananth
Sarah Gaiter
Shubhi Jain
Akintayo Salu
Tony Yu
Jimmy Zeng

Special Thanks Pushers
Flaggers
Media & Design
Cherlisa Tarpeh
Thomas Anderson
Robert Bowie
Lane Darby
Hope Dohner
Tom Felmley
Christopher Fulton
Josie LaCoe
Evan Moss
Kristen Smith
Matt Swain
Grace Noh Yakubisin
CSDI

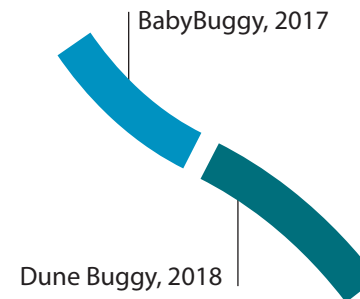
Atlas

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. Atlas' current fleet of self-driving robots consists of two buggies. BabyBuggy, which rolled in pre-pandemic years, 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 around the course soon.



- Chair Christopher Bernard
- Vice Chair Larry Chen
- Electrical Team Lead Thea Brick
- Software Team Leads Bas Yoovidhya
Sam Flattery
- Mechanical Team Lead Ryan Bao
- Social Chair James Nguyen
- Members Alexander Lyons
Owen Ball

- Special Thanks Oshadha Gunasekara for continuing to provide technical consultation after graduation.





Additional

Support Organizations

“Congratulations, Seniors! You’re Alumni Now”



Buggy Alumni Association

You know you’re going to miss buggy most of all. Here’s how you can stay involved! Register before graduation (May 15) to get 1 year of premium membership benefits for free: <http://cmubuggy.org/seniors>

Member Benefits

Supporting Members are the first to know when exiting 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



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 2022!



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.



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.

Special Thanks

Sweepstakes would like to thank the following people for helping make Raceday 2022 a success

Alumni Relations Laurel Bosshart Furlow
Tim Leonard
Anne Witchner


Head Judges Tishya Girdhar
Jake Muskovitz

CMU Construction Joseph Yimin
Jamison Fielding

Fire Safety Marshals Evan Orowetz
Jason Heider

Buggy Alumni Association Connor Hayes
Ben Matzke
Tom Wood
Lou Conley

Buggy Showcase Judges Chris D'Eramo
Susan Finger
Diana Haidar
Eli Workman



Other Kaycee Palko
Anne Witchner
Rebecca Cicco
Julia Corrin

Michelle Dang

Carnegie Mellon EMS
Carnegie Mellon Police
City of Pittsburgh EMS
City of Pittsburgh Police
City of Pittsburgh Special
Events Committee

cmuTV
WRCT
W3VC

Phoenix Sport Technology
Vertical Access Solutions
Viewpoint Production
Pro-Lit Lighting & Scenery Inc.
Windswept

Our Sponsors



Carnival Schedule

WED

WRCT Sweepstakes 2022 Buggy 100 Preview
88.3 FM
<http://www.wrct.org/>
6 pm – 7 pm

THURS

Buggy Showcase
Wiegand Gym, 1st Floor, CUC
12 pm – 2 pm

Buggy Alumni Association Welcome Event
Fuel and Fuddle
8 pm – 10 pm

FRI

Sweepstakes Preliminary Races
Schenley Park (course on Tech, Schenley, & Frew)
8 am – 1:30 pm

Livestream
BAA raceday coverage
<https://livestream.com/cmuvlive/buggy100>
Live radio broadcast
<https://cmubuggy.org/raceday/>
88.3 FM

History of Buggy: Buggy 100 Year Anniversary
McConomy Auditorium
2 pm – 3 pm

Buggy Bash: A Centennial Celebration
Activities Tent, The Cut
7 pm – 9 pm

SAT

Sweepstakes Final Races
Schenley Park (course on Tech, Schenley, & Frew)
8 am – 1:30 pm

Spring Carnival Booth
& Sweepstakes Award Ceremony
Midway Stage, The Cut
4 pm – 5 pm

Live Heat Schedule: <https://tinyurl.com/buggyrd22>

