

HARLEM KNIGHTS 1660 ROBOTICS



2015 Reflections

FREDERICK DOUGLASS ACADEMY I

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hk1660.org

#hk1660

This book is presented to

with gratitude from

The Harlem Knights FRC Team 1660

My time here
Started in October
Young and new
I didn't think I'd have many a friends
But I found my saving grace
Robotics, My team
And as I've never met more accepting people
And more giving sponsors
I will cherish this forever
Thank you for being you
As we progress
This memory will forever be fresh
Robotics, my safe haven
The way you accepted me
Will always be in my heart



Naliyah Grant

Business: Marketing

Class of 2018

My first and only objective when I came to FDA was to join all the stem clubs possible and Robotics was my first choice. When I came in I was both anxious and apprehensive at the same time. I felt like all the older kids were going to make fun of me or yell at me because I didn't know as much as they did, or I'd mess something up. I'm really glad the team had workshops to teach us what the Robotics team was composed of and all the things we needed to know to be able to work in the field we chose.

When I build season started I still felt unfamiliar with all the members of the team and “normal” things one should know on the team. But I was rather comfortable at kickoff because I got to show my intelligence; that I would be a useful member of the team. However when Build season did start (the actual construction) I felt useless because everyone had a job and knew what to do and how to do it and all I had were ideas that I couldn't even put in motion.

That was, until I met Nikolai, a mentor from Bloomberg who changed everything for me. He listened to my ideas and got me started on them. He taught me how to use 3 different types of drawing software in a matter of weeks. Next he taught me how to use the CNC machine which I used to carve out my idea for the robot. Harlem Knights has been the best thing that has happened all year and the experience I've gained has made me confident in my value on this team and I plan on staying and hopefully leading this team throughout the rest of my high school career.

“ Harlem Knights has been the best thing that has happened all year. ”

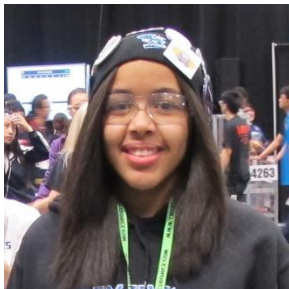


Myles Nutifafa

Engineering: Mechanical: Manipulator

Class of 2018

People find love in strange ways
I found mine in the weirdest
It was a regular boring day
Until I saw you walk by
I caught a whiff of your cologne, it smelled of oil, that's when you caught my full attention
I introduced myself to you making sure I made a good first impression
It worked because you asked me out on a date, or as you called it a drivetrain workshop,
it was so much fun to build a skateboard with you but you told me that there was more to you ,
I didn't understand until you explained that you had 5 personalities, a business personality, a
drivetrain personality, a manipulator personality, a pneumatics personality, and finally the one
I've grown to love, the **electrical** personality.
You introduced me to your family and I felt at home.
I love **hk1660** but not as much as I love you
our relationship started as a basic idea that seemed so impossible but with the help our many
sponsors, we blossomed into a beautiful thing, sort of like a robot built to stack tote.
you are the Bloomberg to my Harlem Knights,
the peanut butter to my jelly, the Yoda to my Luke.
I mainly spent time with the electrical side of you and it was wonderful.
I learned so many things about electrical engineering I didn't know before: for example I
learned how to take care of batteries for the robot, I tended to them like they were our
children, I also learned how to solder which is really fun. When competition time came you
were there for me, you motivated me to do the best I can replacing and maintaining batteries.
and when we lost, both times, you brought everyone on the team even closer so we were able
to comfort each other. After the build season was over I thought I wouldn't see much of you
but you are a big part of my life now. I **Love** you robotics and I plan on spending the next three
years of high school with you.



Georgia Richmond

Engineering: Controls: Electrical

Class of 2018

“Intriguing” who am I?

“on the contrary” Who am I?

Hii! My name is Kemo Nate Robinson and I’m a member of the Harlem Knights robotics team #HK1660. It was about October or November when I saw the poster for the robotics team. It was my first time hearing of robotics and what a robotics team is about. I didn’t have any type of robotic classes so I was lost when they started talking about robotic stuff. However as soon as I went home I did research about robotics to see what it is. I found out it’s basically engineering and being an engineer. On the other hand our robotics team is more than that were all different types of engineers like mechanical and electrical. Then we have our business committee which if it wasn’t for them we would have no robot, no snacks, no Rochester competition. Also without our engineers working nonstop every day during build season we would have such an awesome robot at competition. I love this robotics team and so does me and my group of friends. I think honestly if I didn’t join this team this year I wouldn’t have so much knowledge of mechanics and business. Which I why I’m saying thank you to the whole robotics team for my making my 9th grade high school year better especially for someone who’s first year on the team is this year. I would also like to say what my favorite things to do in robotics are using the mechanical tools, eating snacks/food/donuts, making new friends throughout the build season. In conclusion I love this robotics team and I can’t wait to be a part of next year’s build season and help build even better robot that will dominate the playing field and bring us to world champions but then again that’s a dream and it will take strong work ethic and determination to achieve.

“My favorite things to do in robotics are using the mechanical tools, eating snacks/food/donuts, making new friends....”



Kemo Robinson

Engineering: Mechanical: Drivetrain

Class of 2018

As a freshman, I decided to join the team, because I was interested in what robotics was about. I had no prior experience with robotics and didn't know what to expect when I entered the

“I learned how to use CAD and with it I designed so many things for the robot through 3D printing.”

room. Before build season we learned about the equipment we used and some of the things we needed to know to build a robot. All the older members of the team were happy to help when I was confused on anything. I learned how to use CAD and with it I designed

so many things for the robot through 3D printing. Being part of the team was so fun and taught me so many things. I can't wait until next season.



Christopher Rodriguez

Engineering: Mechanical: Manipulator

Class of 2018

During robotics my grades got better. Robotics helped me do better in math and science. I started to do better in school. I also learned new things like how to make a skateboard, a chalk launcher, prototypes, and I learned how to do things on the mechanical committee. I learned pneumatics, I learned how to tap, I learned how to fix a gear box, etc. I made friends with the older kids in robotics. I started to feel accepted during the chalk launcher workshop. I had a lot of fun and connected with a lot of people during the competitions. Next year I want to be a part of the mechanical manipulator and mechanical drive train committees.

“Robotics helped me do better in math and science.”



Madison Salmon

Engineering: Mechanical: Manipulator

Class of 2018

Joining robotics this year has given me the chance to look at school and everyday life more scientifically and realistically. It has given me the chance to expand on my experiences; with this new knowledge I've been more familiar with careers in the mathematics and science field. It's confirmed my thoughts of wanting a job in the STEM field. After a few weeks in robotics, my grades in Aviation and Living Environments improved drastically. Apart from helping me in my school life, robotics also made my social life both awesome and thrilling. Making new friends

“ [Robotics] confirmed my thoughts of wanting a job in the STEM field. ”

quickly after joining the robotics club encouraged me to do better in school. Surrounding myself with the right people also made me excited to come to school each day, learn, and come to the robotics room afterwards.

Experiencing things like going to Rochester, NY with my fellow teammates to compete in the Finger Lakes Regional also made me ecstatic to compete next year. Not to mention, apart from an incredible experience I've had and will continue to in the upcoming years of high school, I know this will look amazing in my future.



Nickol Zurita

Business: Marketing | Engineering: Mechanical: Manipulator

Class of 2018

Being on the robotics team has impacted my life in a way that I had never expected it would. In the beginning, I was just joining the team because I wanted to add another extracurricular activity to add to my high school career; I could also use the extra credit for my robotics class. But, it wasn't as if I had a minimal interest in building robots. I had actually enjoyed building the square-bot that we had built in class that I actually wondered how it would be to build a real robot. Therefore I joined the robotics team and that has made all the difference. It has been a complete learning experience for me. I felt really important being a part of the team and helping in building this robot. I never knew much about building things. I was never mechanically or electrically experienced so I jumped at this opportunity. I used this as my opportunity to expand my knowledge and improve my skills in handy work. I know how to do things I never thought I could do and would have to call a handyman for. During this learning experience I also developed many close friendships with the members on the team. The team has become my second family now. I plan on joining the team next year and broadening my experience here.

“I know how to do things I never thought I could do and would have to call a handyman for.”



Justina Agyei-Mensah

Engineering: Controls: Electrical

Class of 2017

I would like to thank the seniors for what they have done for this team. It has been a wonderful season and they will be leaving. We as a team should thank them for passing down their

“It is now up to us, the sophomores, freshmen and juniors that we keep working hard until we succeed.”

knowledge to us. We should also thank our mentors for giving in THEIR time into this. It is now up to us, the sophomores, freshmen and juniors that we keep working hard until we succeed. Good Job everybody.

Thank you **August Frost** for being our captain this year it was a pleasure having you for a captain and you will be missed when you leave. #roboticsislife



“OKYEREBOT” Okyere Akuoko

Engineering: Mechanical: Drivetrain

Class of 2017

After 2 years of being in the team, I must confess, it gets better and better every year! With new members and new strategies and engineering we get better and better (at least that's how I feel). As we get more and more members, I only see more potential in our team's future. However, with the more experienced team members leave, I will miss their different personalities and strengths. I hope that I can be as charismatic and willingness to help others, such as they have done for me. Although, I do confess I was greatly disappointed with our two losses, especially in Rochester, and quite frankly I think this was due to mechanical flaws, which I hope to lead this year. As I reflect back and see the other teams, I would love to do something new and really creative for next year, and this is only my thoughts. However, at the same time I was greatly satisfied with our performance making playoffs in NYC and a replacement bot in Rochester, I hope to use this learning experience so that we, as a team can produce an even more OP robot.

“ With new members and new strategies and engineering we get better and better [every year]. ”

As for the competitions, being in Rochester, despite stressing over homework was probably the most fun I've had that whole year, as my life is uneventful and lonely at home, and quite frankly I usually enjoy the solitude; except when I'm around my teammates. For example, Mr. Bianchi has become a very important person for me and he is there to help me, whatever the trouble.

Simply put, I can't wait for next year!!!



Odon-Erkhes Batjargal

Engineering: Mechanical: Manipulator

Class of 2017

All last year, I have heard people talk about robotics classes and afterschool programs and I never got the hang of it. I thought it would be tedious and that it wouldn't interest me one bit. I can look back at saying that and I realized how irrational that actually was. Now, I'm a devoted member of the robotics team and I understand. I understand that it's not only interesting, but it's versatile, helpful (both academically and personally), and it broke me out of my shell.

Coming to Frederick Douglass Academy as a freshman last year, I was shy and awkward towards people I didn't know and I had no social skills. I would go home every day after school and play video games, do homework and when I felt like doing something after school, I would quit the extra-curricular activity within 2-3 months of joining. I felt like a quitter and that wasn't something that satisfied me as a person.

One day as me and my friend decided to go to the robotics room, I saw something completely different from what was suspected. It was lively, active, social and it was fun! That day, I remember first breaking out of my social bubble to converse with people who had common

“ [Robotics is] not only interesting, but it's versatile, helpful, and it broke me out of my shell. ”

interests. Since then, I can honestly say I've been less of an introvert. I can still be shy at times, but that's just me. It's great that robotics has helped me do the impossible that I've been trying to overcome since I was younger. As

well as making me more social, it's open doors for my future. I was indecisive for my future career, but being on the robotics team has helped me. I became more open to certain work fields that I wasn't open to previously, such as engineering, business and computer science. Now I can honestly say that I have a spark of interest in each of these that I wouldn't mind pursuing. I've become more open-minded and more aware of what the future has to come. All in all, being on the robotics team has been beneficial to me so much this year. I've literally grown as a person in the robotics room and with my second family, as I like to call them.



Malachi Blenman

Business: Marketing | Engineering: Mechanical: Drivetrain

Class of 2017

This year I was on the Harlem Knight Robotics team at FDA1 and it was the best experience of my life so far. Out of all the different committees I could be a part of, I chose to be a programmer. I always had a thing for programming in middle school so I figure it would be easy to stick with it in high school. It was a challenge that I was ready to face with the help of Mr. Bianchi and other mentors. During the 6 weeks of building, I focused on my sections of code and me and my other teammates created a wonderful robot. We also had help from the many sponsors that I would like to thank for making this experience possible.

We went to the New York City Regionals and made it to 4th place with our really good robot. Then, in the Rochester Regionals we didn't make it to play offs but our robot improved a great amount during the game. This experience for me, a girl trying to pursue a career in engineering, was great. It pushed me to face challenges and know that anything is possible if I put my mind to it. I also made lot of new friends along the way, which is pretty cool just finding people that have the same interest and passion as you. I love the different personalities I encountered and love all of my teammates because at the end of everything we grew closer as a family and created moments that we should all treasure forever.

“[Robotics] pushed me to face challenges and know that anything is possible.”

The trip to Regionals was also very fun, I got to meet people from different places in the world and make friends with them too. Every school should have a robotics team, but mine will always be the best in my eyes. I just can't thank the team, Mr. & Mrs. Bianchi, the different mentors, and the many sponsors enough for wanting and believing in a better future for kids interested in STEM (science, technology, engineering, and mathematics) fields.



Jatara Clark

Engineering: Controls: Programming

Class of 2017

This year has been a blast. I got to meet new people and work with them. I even made new friends, which is hard for me as a person. When I joined robotics I thought it would be all work, but we also had fun doing work. I got to learn a lot about programming and electrical

“I thought [robotics] would be all work, but we also had fun.”

engineering. I would like to thank all the mentors because they made the complex things easier to understand. I regret not joining the team in 9th grade. I basically programmed the controller of the robot (the

controller controls the motion of the robot and its functions).

I feel proud of the robot we made, we weren't a veggie bot or on the bottom of the regionals. Next year I plan to become an advanced programmer and help the other fellow robotics friends.



Jamesey Exime

Engineering: Controls: Programming, Electrical

Class of 2017

Since starting the robotics class in 9th grade I realized that I want to do engineering full time and apply it to my daily life. In my 10th grade year I decided to join the robotics team. First I was a little hesitant and conscious of what I would be useful for. I eventually found what I wanted to do, which was mechanical manipulator. I have discovered that robotics is my OTP (one true pairing)! I began to enjoy the different personalities everyone brought to the table. Throughout the Build Season our personalities have clashed, arguments caused frustrations, but at the end of the day we still come together and have fun. Overall the robotics season was special to me because of how social and awkward I am, and that my awkwardness could be accepted into a community of awkward intelligent people. I don't care if I haven't talked in the robotics room, I love everyone's contribution and personality. Sadly I am moving to Connecticut but I am not planning on changing schools because of the environment that the robotics room has created.

“ I have discovered that robotics is my OTP (one true pairing)! ”



Joseph Green

Engineering: Mechanical: Manipulator

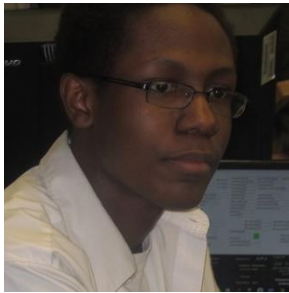
Class of 2017

Before entering the robotics team I was interested in programming and everything of the sort, but I never had the drive to pursue any of it. Joining the team gave me a reason to pursue my

“ Being on the team...has persuaded me to look into careers in engineering and software programming. ”

goal of becoming a successful programmer. I was discouraged at first, looking at last year's code it looked extremely extensive and difficult to manage. However, after being introduced to Java by my mentors Mr.

Roebuck, Steve, and Rakesh I saw that it was possible for me to pick up programming and eventually become a big part of the team. Being on the team and working through build season and the regionals has persuaded me to look into careers in engineering and software programming. I am extremely grateful for the time my mentors have put into this team and for the love of engineering they've passed on to me.



Matthew Morris

Engineering: Controls: Programming

Class of 2017

When I had joined the Harlem Knights Robotics Team this year I had no clue what I was getting myself into. At first I only joined because I felt that colleges would like to see that on an application. In no way shape form did I think that I would make the bonds with people that I did or learn new material that I would use in my everyday life.

When I joined I was not even really interested in doing anything but coming and “chilling” after school. After joining people were very welcoming and I already felt like a part of the team. From orientation to after build season I could never get myself out of this room. Being here for almost 3-5 hours every day felt like 30 min. I was constantly learning something new and my mind was always stimulated.

“ I was constantly learning something new and my mind was always stimulated. ”

During the build season was the most hectic time but I loved every part of it. The robotics team kept me motivated to keep my grades up with TinkoBucks and they probably would not have been as high as they were if I did not join the team. Also fundraising for the trip was another great part because it helped me learn how to ask for donations.

Overall the best part of this season was watching DragoKnight compete, and making it as far as we did. My entire experience was amazing this year and I look forward to joining again next season, and watching another one of our creations come to life.



Lauren Solomon

Business: Finance | Engineering: Mechanical: Manipulator

Class of 2017

This is my second year on the team 1660, and I have to say this year was interesting to say the least. Personally for me I would describe my time in the Harlem Knights as a time well spent. I have had many laughs when some old friends and as well made some new interesting friends to boot. During the workshops we set up it was really amazing to see many people attend them

“Being on the robotics team for these past two fast years was one of the best choices I have ever made.”

and actually make a skateboard, or hack their book bag.

Eventually build season came around and everyone

began working; but we didn't just work non-stop we

laughed, joked, played, and chatted I remember the

countless of jokes I shared with my friends as well as our

team discussions about the robot. My most favorite part of the year was the Rochester trip. I

was very excited for this regional for two reason the first being I have never been there before

and the second being that I wanted the team to have another shot at the competition. My

favorite part in Rochester would have to be when we all went to the laser tag area; it was very

funny seeing the entire team face off in a cramped dark area with lasers. Being on the robotics

team for these past two fast years was one of the best choices I have ever made, sometimes I

wish I can be a freshman again because it sadness me to know that I have only two years left as

a member of team 1660.



Michael Stone

Engineering: Controls: Electrical

Class of 2017

This year was when I joined the robotics team so I was inexperienced and had much to learn. As any newcomer I was lost wondering what to do, and how to do it. As time elapsed and each day I attended robotics I acquired things to add on to my knowledge. Even though I participated in the business and pneumatics committees I learned skills outside of the primary ones. I learned the name and functions of various tools used in robotics also how to use difficult and dangerous tools such as the dremel and the drill etc. The most important issue was that everyone must pay attention to safety procedures, we must always learn the dangers of not utilizing a tool properly in order to prevent any harm to oneself or a fellow teammate.

Before joining the robotics club it was a felony for me to take things lightly as in thinking the robotics club is just building a robot. I know now it is way more than that: building is just superficial. The core of robotics is to inspire people and reach out to them; also, it is a learning and bonding experience that will further aid us in our lives. The person who is to take credit for my enjoyment during this process of building a robot is not only Mr. Bianchi but also Mrs. Bianchi along with the rest of the mentors/alumni, especially Nickolai and Martin for donating their time and knowledge and aiding us through the six weeks of build season and also the competition in New York and the Finger Lakes regional. Even though we did not win, just by participating and reaching the semifinals during the first competition was a huge honor.

“ The core of robotics is to inspire people and reach out to them. ”

In life we win some we lose some and we may have lost the actual competition but we did not leave empty handed, we brought along memories, experiences that taught us how to improve and most importantly the Entrepreneurship Award which was a team effort. The seniors played a huge role in the entire process as they guided students and allowed us to think for ourselves and try to process things on our own. They were like the skeleton of our team and after they graduate they will be missed but also remembered through their time and effort on the robot DRAGOKNISHA / DRAGOKNIGHT. I enjoyed my time on the robotics team and can't wait for next year to apply the skills I learned.



Mohammad Ryan Talukder

Business: Marketing | Engineering: Mechanical: Pneumatics

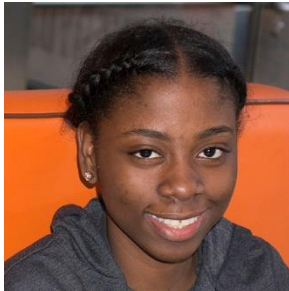
Class of 2017

Looking back at my first year of being a member of the Harlem Knights Robotics team, I can say my year was well spent. Throughout this season I have not only learned a lot about Engineering

“ I received numerous life skills including teamwork and leadership skills and the courage to be myself. ”

but, I received numerous life skills including teamwork and leadership skills and the courage to be myself. I remember being shy my freshmen year and the beginning of my sophomore year but being on team helped me to break out of my shell. Knowing that on

worst days, I will always see the biggest smiles whenever I enter Mr. Bianchi's room means the world to me. I am proud to say that I am a member the Harlem Knights family and we will always support each other and win and lose together.



Navine Thompson

Engineering: Controls: Programming | Mechanical: Drivetrain

Class of 2017

This was my second year on the team and I did much more than I did in my first. I grew closer to many people on the team and made some new friends. I am glad I joined the team again this year because while I had the chance to help others in the club regarding the financial/business aspect of the club, I also had the chance to strengthen my skills in that area so I'll be ready for a career under Finance. There was lots of laughter, lots of anger, lots of untidiness, lots of tears, but at the end of the day we were all family. Although I had a good time at the FRC competition in New York, when I went to Rochester I was able to connect a lot more with others on the team, especially some of the freshman on the team. This being important because no one should be uncomfortable in a setting where they will be spending most of their time in. There were sometimes I didn't want to stay after school for robotics because I knew that if I stayed I would have left at a late time and it's the same time skunks and raccoons start to come out in my neighborhood in the Bronx. I did however, only if my mom would pick me up from the train station. I admire the way Mr. Bianchi and Mrs. Bianchi, my coaches, stay committed to the team even though they have a life at home especially with children. The robotics room is their home, my home, the team's home, our home and that gives me a great feeling of happiness.

“The robotics room is...our home and that gives me a great feeling of happiness.”



Tyra Henry

Business: Finance | Marketing

Class of 2016

I would like to thank you for supporting me on my journey through FIRST. I truly feel FIRST has motivated me to excel in life and to always try to be better.

“FIRST has motivated me to excel in life.”

Without FIRST and all your support my love for robotics wouldn't be where it is today. I realized that with the knowledge FIRST has provided me with I will be able to contribute further advancements in technology and spread the joy FIRST and my supporters gave me.



Diante Johnson

Engineering: Controls: Programming

Class of 2016

I have been on the robotics team for 2 years and I love it. I'm glad I joined the team because I got to experience programming and business; but got to meet new people. Also, being on the team has helped me to be myself around others and to be more creative. However, we are like a family that comes up with cool ideas and have fun while doing it. Those ideas turns into a wonderful functioning robot which amazes me. Therefore, joining the team was a great decision and I'm happy to be a part of the team with such great mentors.

“...being on the team has helped me to be myself around others and to be more creative.”



Briana Smith

Business: Finance | Marketing

Class of 2016

This was my second year on the team and definitely my favorite. This season I truly learned what it means to be a captain and that being a part of team 1660 extends outside of building a robot.

At first I was afraid that I would be a terrible captain because I'm so used to wanting to do everything myself. But gradually, I found that the best way to be captain is to learn from those on your committees and never give up. Being a captain means always looking at solutions that will benefit your committee as opposed to personal preferences.

My absolute favorite moment this year was the trip to Rochester. Even though we didn't advance to World Championship, it brought the team so much closer together. As a result of that trip, we seniors continually have movie nights to relive the moments.

This year I found myself being somewhat of a big sister to the younger members of the team and I absolutely loved it. The people on the team are so interesting, funny, weird but most

“ Room 108 is more than just a classroom...it's a stepping stone for greater things in life. ”

importantly family. I found myself always wanting to come to robotics every day and on Saturdays to spend time with these people. The most important lesson I've acquired is that "family isn't always blood. It's the people in your life who want you in theirs; the ones who accept you for who you are. The ones who would do anything to see you smile and who love you, no matter what."

Room 108 is more than just a classroom, I am proud to say that it's a stepping stone for greater things in life.



Jessica Adjei

Business Committee Captain

Class of 2015

I joined the robotics team because my father told me “don’t come home without an after school activity” and he also wanted me to do something I wanted to do, so I joined the robotics team. The team has instilled changes my life: first, it helped me get rid of my shyness and helped me speak up and ask questions. Then, I began to open up and gain friends it allowed me to become more social. Also, being on the team increased my math grades in my math classes and increased my interest in math. In addition, being a captain helped me become more of a leader and proactive in a leadership role. So being on the team helped me in life and communication with others.

“ ...being on the team helped me in life and communication with others. ”



Angelo Anderson

Engineering: Mechanical: Manipulator Captain

Class of 2015

This year this team has truly become my second home. I spent more hours here than I spent anywhere else and I don't regret it for a second. This was my second year on the robotics team; however, I feel like I've spent eternity in that room and have so much more to learn.

This team not only opened my eyes to the greater world out there but also gave me hope to do better even when I saw no point. I have developed friendships that will never end even if I

“I have developed friendships that will never end...”

wanted them to and have become a loving and annoyed mother to many of the underclassmen that I've met this year.

I will never forget all the late hours and cool projects we did on this team. Although we came so close to winning I feel like it was just the encouragement we needed to know we are capable of great things and can do even better if we try even harder.

This can never be a good bye because this team is officially a part of me so I guess I'll just see you when I finish time traveling (^-^).



Carey Brown

Business: Marketing

Class of 2015

When I first heard of the Robotics Team as a sophomore I never thought I'd be as invested as I am now. Being a part of Harlem Knights Team 1660 has meant so much to me. This is my second year being on the team and I have learned so much from my mentors and my peers. Not only do I see every member as a companion but they're also like an extended version of my family. Throughout the season they were there, through the good times and the very bad times. Over the year, we got closer, from the tears shed at competition to playing laser tag and getting chased (and beaten by Mr. Bianchi). While being on the team I've learned about programming, electrical engineering and even mechanical engineering, things that I'd never think I'd be interested in when first joining the team. Now, leaving as a senior I'm proud to say that I joined the team even if it was late in my high school career, because I have more people to call family.

“When I first heard of the Robotics Team...I never thought I'd be as invested as I am now.”



Arlene De Leon

Team Co-Captain

Class of 2015

Four years of work is now coming to an end. In all my high school life things never truly started until build season. School seemed dull, never having a true purpose except walking into school and back out. Class work becomes dull really quickly, and leaves no memories. Projects would have an impact, only because they would require more of your time. Time you would rather spend elsewhere, doing *something* other than work. The word “work” never spawned happy

“The word “work” never spawned happy thoughts in me...until Robotics entered my life.”

thoughts in me, no matter where, until Robotics entered my life. Room 108 has become a place of Hard Fun. All the hours of work I logged in that room probably accounted for 40% of my High School life. I have nothing but great memories in that room, all involving the

members of the Harlem Knights over the course of these four years. My first year highlight was joining the electrical committee. Second year highlight was making it to the finals in our regional. Third year highlight was becoming the captain of the Electrical committee. I did try for the co-captain position, but I lost in the end. The fourth year highlight was designing a near flawless electrical board (In my opinion at least). Now the time has come for me to leave, and I am happy to end my time on the Harlem Knights on such a great year with a great robot. I am Dantae Flowers, and I am signing out of one of the most memorable experiences in my life yet.



Dantae Flowers

Engineering: Controls: Electrical Captain

Class of 2015

Being my final year in the Frederick Douglas Academy and my last year participating on the robotics team as a member of the team I am greatly appreciative. I have made great friends who are like family to me and all of it is due to me joining the team. I remember in ninth grade having Mr. Bianchi as my algebra teacher and having to go to his class during my lunch period to discuss obscure topics about life. After that year I decided to join the robotics team during my tenth grade year. I remember when I joined the team on my first day I burned my thumb from holding a drill bit for too long that had just been used. At that time it didn't mean much, but now when I reflect on the situation it's another funny memory that I'm glad to have. Mr. Bianchi is like another father I've learn so much from. He's a great teacher, coach, and person who is able to see the potential in every student he teaches. I really don't know where I would be without Bianchi and the team and I can't imagine being anywhere else.

“I really don’t know where I would be without...the team and I can’t imagine being anywhere else.”



Nicholas Fogle

Engineering: Mechanical: Drivetrain Captain

Class of 2015

I joined the team because my friends wanted me to join; it's my senior year so I only got to spend one year on the team. I wish I had joined earlier because I can only imagine how much more I would have learned. I learned a lot about how to build a robot even though I was a part

“I wish I had joined earlier because I can only imagine how much more I would have learned.”

of the Business committee. I got to use AUTO Inventor and 3D print things. Being in charge of the Chairman's Award Video allowed me to add more to my portfolio, I'm proud of the outcome and what I learned about creating professional content. Anything is possible when you

commit to it, I applied my journalism skills to the interviews and got some great responses. The atmosphere of a regional competition really showed me how important the FRC Competitions are to every other school in there.



Rubi Hernandez

Business: Marketing

Class of 2015

There is so much I could say about being a Harlem Knight. If I sat here and attempted to write about all of the amazing things that comes with being on team 1660 it would be a whole book. But I think the grit of it is that the Harlem Knights is a family. It's a mosh pit of people so different that it's a wonder how we all fit together. However somehow...it works... we are this great big dysfunctional engineering family with Mama and Papa B as our parents.

I couldn't be more proud of our team this year. From ranking 17th in NYC Regional to going to Rochester and rocking it there too we had an amazing season. The Entrepreneurship Award was just icing on the extremely sweet cake. This year the team bonding exercises were awesome and really helped the team bond which was so important for our robot and team to be working cohesively. The team work was great this year.

“The Entrepreneurship Award was just icing on the extremely sweet cake.”

It's all very bittersweet this being my last year on the team. I am comforted by the fact that our motto is essentially “Once a Harlem Knight Always a Harlem Knight”. I only regret not joining earlier. It's been a great journey to be a part of this team.



Nabila Medina

Business: Finance

Class of 2015

My experience on this team has been great from day one when I held mechanical tools which was used to put the essential parts of the Harlem Knights robotics team's robot together. With the help given by various members of the team I felt like family when I joined this team, I appreciate the help and encouragement given by my mentor Mr. Bianchi and his wife Mrs. Bianchi; these two people have given all necessary support to the team and also led the team far in various competitions in and out of New York.

Secondly, I want to thank the team sponsors for all the support they have given to the team

“...without [our sponsors] we wouldn't have gotten to where we are now...”

because without them we wouldn't have gotten to where we are now and also with the help of the team members we have reached the level we are now. I thank the other mentors for helping out even though they have

graduated from the school where the team was developed from.



Samuel Nortey

Engineering: Mechanical: Drivetrain

Class of 2015

Wow, how the year has gone and the season has flown by.

I didn't think it would all happen so fast. I could have sworn that just yesterday we had been toiling over what we would name the robot. If I could, I would build a time machine and do it all over again, bigger and better.

Being with the team this year, in the beginning, felt as if we had been handed the role of a pilot to a plane we hadn't yet felt ready to fly, but we did, and when we flew, we soared. I will never believe that we did not have the capability of soaring higher making it to finals- even champions- but even so we made it as far as possible and I am proud of us for it.

This is just my second year on the team but it already feels like home. I don't know what I would have been doing without robotics, honestly, I devoted so much of my time and energy to it that I'm not sure if I would have the same experiences that I have today. I really owe the Bianchis one, even the babies.

I feel the need to cry like I did back in Rochester. It felt like we had been cheated of a spot we deserved. I no longer hold the anger and frustration but I still feel a sense of loss. Not to the spot in quarters but to the experience I could have had for all four years. I feel like I cheated myself by not being a part of the team earlier. I guess it will just take me time to accept that even though I won't actively be in the robotics room working towards competition up to 10 hours a day for 2-3 months I can still mentor and help out the team during my free time (if I have any).

“I feel like I cheated myself by not being a part of the team earlier.”

My parting wisdom to the team would be to never give up even when it seems impossible. It is all possible when it comes to robotics. You want to build the terminator? DO IT! (That might actually not be feasible but still....DREAM BIG.) You have such an amazing support system and a coach who is utterly devoted to you and your learning experience as being a part of it.

All in all, What I'm really getting at here is that in the robotics room...

THE WORLD IS YOUR OYSTER.

NOW GET OUT THERE AND SHOW OFF WHAT THE HARLEM KNIGHTS CAN DO.



Simone Moore

Business: Marketing | Engineering: Mechanical: Manipulator

Class of 2015

Home is a place of comfort, where you share common values with others, are taught life lessons, and are free to be yourself in a supportive environment. The robotics room is like home to me. However, what good is a home without a key to open the door? For me that key has come to be the allen key. If you ask most people what an allen key is, they will probably tell you that it is a tool used to tighten bolts. Although this is true, the allen key has done so much more for me. It has helped open doors to my future and the world of engineering.

The use of the allen key has opened so many doors for me. I have had the opportunity to personally meet the founder of FIRST robotics, interacted with and learned from professionals in the field, and, through work and volunteer experiences, have had the opportunity to encourage other students to explore STEM related fields. Along with these opportunities, I have acquired skills, such as team building and efficiency in design, that can be applied in everyday life.

June 2015 . . . as I turn off the lights and back out of the room, I think about its meaning to me.

It is the place where I felt most content; the place where I learned valuable lessons; the place

“[The robotics room] is the place where I felt most content; the place where I learned valuable lessons; the place that felt like home.”

that felt like home. Along with other lessons learned, the frightening experience in the room taught me to fully assess a given situation and to evaluate the possible outcomes, of courses of action, before moving forward. Now, the time has come for me to leave the home I love.

Going forward, I am eager to use my allen key to open the door to a new home that will enable me to continue to pursue my passion for the field of engineering.



Julian Frost

Team Captain

Class of 2015



Gullion Street