

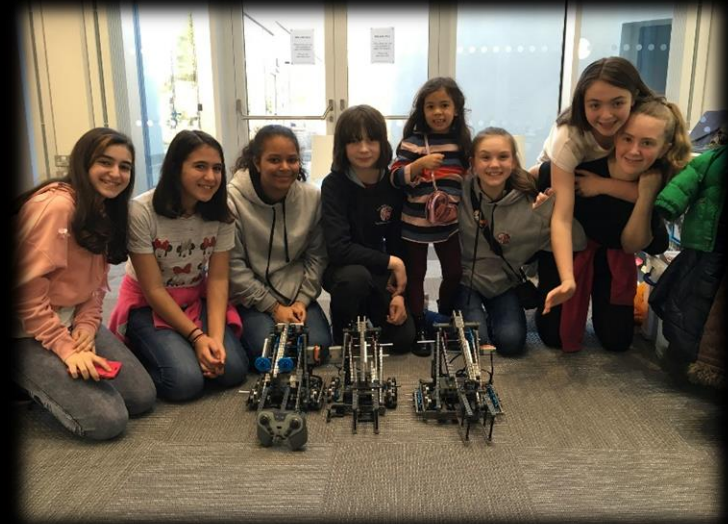


GirlPowered Online Challenge

By EBS Robotics
East Barnet School
Invexibles 5194V & Girlbots 5194G

The QnA - EBS Robotics 5194G and 5194V

1. When you hear the phrase, Girl Powered, what comes to mind? How is it reflected in your team's approach to robotics?
2. Share how your team has taken initiative to create a more inclusive environment that attracts a diverse group of students.
3. Share how each team member has tried various roles on the team (everything from designing, to building, programming, strategy, awards, etc.). Explain what you learned through this experience.
4. How do you believe diversity of perspective changes your robot design, your team chemistry, and even your ability to succeed?
5. Who is your STEM role model and why? Does this person inspire you to have a more inclusive team/program? How?



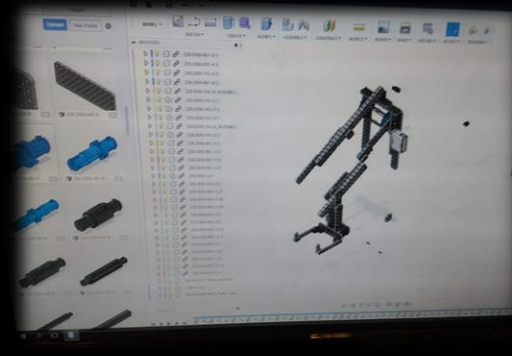
When you hear the phrase, Girl Powered, what comes to mind? How is it reflected in your team's approach to robotics?

When we hear the phrase Girl Powered we, EBS Robotics, think of breaking the gender barrier between girls and boys. This is very important because both genders should be equal. It also makes us more enthusiastic to be able to promote Girl Powered UK and inspire and encourage other girls and young women to get more involved in what they're passionate about. Empowering girls to take part, will result in boosting their confidence which will play a substantial factor in their future careers because they will be able to engage more in an engineering environment and contribute towards "the future of making things". There are now more girls in EBS Robotics because of Girl Powered UK and past teams, VEX Impact, who have inspired girls in our school. EBS Robotics have been to Chelsea FC to share our experiences with younger girls in primary schools. We did a presentation to about 400 girls who are interested in robotics. This just shows what an impact Girl Powered is making on girls around the country.



Share how your team has taken initiative to create a more inclusive environment that attracts a diverse group of students?

We are two all girls robotics teams from East Barnet School. We have been very successful as a unit and a school. We take great pride in showcasing to everybody that it doesn't matter who you are, but if you're willing to put time, effort and hard work into robotics and engineering, it can take you very far. EBS Robotics visited Chelsea FC to educate primary school children at a girl powered event to inspire them to pursue robotics and engineering as a possible career. We also explained how it can help in many areas of their life. In EBS Robotics we don't just build robots, we produce CAD designs using Autodesk Fusion 360, Tinkercad and Modkit. We have produced a multitude of presentations to a diverse group of students, about what we all think of Girl Powered. These were created using Microsoft applications such as Sway, along with creating our completed detailed Design Notebooks and UK Sponsorship Packs . We have also attracted the attention of Fortune 500 companies such as Tata Communications to name one.



Share how each team member has tried various roles on the team (everything from designing, to building, programming, strategy, awards, etc.). Explain what you learned through this experience.

EBS Robotics students have taken on many roles, from driving, to designing, building, programming, CAD, Marketing and Sponsorship just to name a few. Everyone in EBS Robotics has completed several CAD tutorials in order to develop and enhance our design skills in the never-ending learning process. We have been trained to an exceptional standard, which has allowed us all to develop our skills in a variety of roles. So if there is an issue all members can cope and deal with the problem. Team members have recently been experimenting with and producing Augmented Reality and Virtual Reality in our engineering team notebooks. This has been noted in high regard by our sponsors and our Head Teacher. We all take great pride in everything we do, no matter how big or small. At the end of the day, EBS Robotics and Girl Powered is a team effort.



How do you believe diversity of perspective changes your robot design, your team chemistry, and even your ability to succeed?

Our robot consists of different features all designed in collaboration with all team members. Our innovative ways of thinking allows us to experiment with a variety of unique robot designs. We are a culturally diverse team which has contributed towards our successes in our designs and teamwork.



Our team chemistry is strong. We all come together to succeed and when we do, we all celebrate together, and when we don't, we all support each other. We win together, we lose together and we operate a NO blame culture within EBS Robotics. Our different mindsets make Team EBS strong together. As well as this, different people from different backgrounds who have been raised differently, can bring new perspectives to an idea or will have solutions to problems that other people may not have come across before. The fact that our team and environment has a variety of culture means this has a positive influence on the general vibe with anything we do.



Who is your STEM role model and why? Does this person inspire you to have a more inclusive team/program? How?



We have models. Mr. Sadler, he is not just our teacher but also our mentor and main STEM Role model.

Mr. Sadler inspires us to work hard and pushes us to make our STEM presentations the best they can be. Mr. Sadler helps stretch three role our mind into a growth mindset stronger. Mr. Sadler has really helped by encouraging us to persevere and focus work and to put all our effort into whatever we do, and to also believe.

He has also made it fun for us to learn about STEM and all of the other interesting things we have learned that will help us in our future life: like presenting, programing, driving, building, designing and more.

Mr. Sadler really does motivates us, he is committed, super enthusiastic, inspiring and extremely hard working with all his students.

Mr. Sadler always has a positive attitude as well as a strong bond with his students. He really is No. 1 for us and he has encouraged us and completely broken the gender barrier for Robotics at East Barnet School, which is a mixed comprehensive. So many more girls are interested in CAD, Design and Engineering because of how he continually helps us all. He is a great role model. When the bell goes at the end of the day we are all back in the classroom wanting to learn.



Who is your STEM role model and why? – Continued....

VEX Impact, former VEX World Championship competitors, are another one of our STEM role models.

They were the first all-girls VEX Robotics team in the world from EBS Robotics (East Barnet School). They were also the first all-girl robotics team to win the VEX EDR UK Nationals in 2013. They were the first all girls team to qualify and attend the VEX Robotics World Championships. They were also the first UK team to win an international award at this competition. (2013 Energy Award and 2013 Judges Award)



Who is your STEM role model and why? – Continued.....

Girls of Steel are another one of our STEM Role models.

They qualified for the UK VEX Robotics National Finals and won and therefore they qualified for the VEX Robotics World Championships. They have been excellent role models for all us girls and have helped us a lot with our work.

They have inspired us from the success of all of their UK competitions and that has helped us to decide about our future careers. We are all planning to choose GCSE engineering as a result in the future.



Dear Judges and all the wonderful Staff at the REC Foundation.

We thank you for taking the time to view our presentation and also for all you do for students with a passion for STEM learning.

Kind Regards

**EBS Robotics – Girlbots and The Invexibles
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