



ORIENTATION DAY SEPTEMBER 2016

# Women in Technology

## Cork programme 2016/17

Enabling Young Women in STEM

January 2017

## Our progress so far...

The Women in Technology programme was created to encourage young women to consider pursuing careers in Science, Technology, Engineering and Mathematics (STEM).

This is the first year of the programme in the Global headquarters of Johnson Controls, located here in Cork.

There are nine students involved from three different schools in Cork city; St Angela's, St Aloysius and St Vincent's secondary schools. The students come to the office every Thursday for two hours where they work with their mentors on live projects.

## Orientation Day

We held an orientation day in September where the students and teachers were invited to the GHQ office located on Albert Quay. The students met with their mentors who interviewed them and explained the projects.

### St Angela's



The students from St Angela's are:

- Laura Higgins
- Helen Nagle
- Emily Ray

### St Aloysius



The students from St Aloysius are:

- Nessa Ferry
- Tina Tony
- Emma Rose Sweeney

### St Vincent's



The students from St Vincent's are:

- Ralia Vanyouseffi
- Asah Aiskin
- Hazel Forde

# Projects

There are three projects:

- Arduino robots
- Mobile Apps
- CSS/HTML for web output

Based on their projects, the students had to decide on a name for their group and create a logo.



## Arduino robots - "N.E.T. Force"

The students from St. Aloysius secondary school received an introduction to computers from their mentors that included descriptions of components, bits and

bytes. The mentors also explained the concepts of programming such as structure, syntax and conditions.

The students were also given instructions on reading the robot API and they looked at examples including how API functions relate/are implemented in actual code.

They have developed an understanding of user input and interactions; for example, how to receive inputs and handle user reactions.

With supervision, they have built their first program that can interact and move the robot using buttons. These students work as a team with minimal supervision to try and provide additional features that include aiming towards north on button press. They have begun preparations for their presentation.

## Mobile Apps - "The 'Appy Crew"



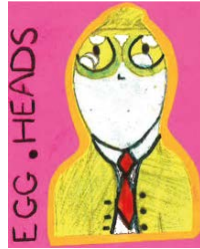
The students from St Angela's secondary school are working on this project. So far this

year, they have learned how to set up an Android app and install the app onto a phone.

They have also learned to call a server over HTTP, get data and manipulate the data about bus stops and train stations that they can then put on to Google maps.

They have also learned about Java, objects and how to create a user interface.

## CSS/HTML - "The Egg Heads"



The students from St. Vincents have been working with the Technical Communications team since September. They are working to create a website that will host directions to the Albert

Quay building as well as other resources for visitors.

To date, the students have learned about project planning, time management and how to create a project charter that outlines the timeline of the project. They have had comprehensive classes in HTML and CSS and have created their own basic web pages.

They have learned how to write meaningful content for specific audiences and have used this knowledge to write outline directions to the building from various locations.



# What's Next?

The programme will resume in January 2017. We are kicking off with a talk from some of the female engineers and leaders from Johnson Controls who will speak about their careers in technology.

At the end of January, the students will present a brief update on the progress of their projects to their mentors and to the other groups. This will allow the students the chance to practice their presentation skills ahead of the final presentation in April.

In April, the first year of the programme will come to a close with the students presenting their final projects to all of the groups, mentors, and members of staff in the Johnson Controls office. Their teachers and principals are also invited to this event.

## THANK YOU!

We would like to thank all who have made this programme a success so far this year including mentors, teachers, parents, and of course the students.