

**FIRST LEGO League**

17 – 18 February 2008

# Final Report

## *FLL in Egypt*

*The FIRST LEGO League (FLL) in Egypt 2007 was organized by the Bibliotheca Alexandrina Planetarium Science Center, under the auspices of Dr. Yousry El-Gamal, the Egyptian Minister of Education.*

The FIRST LEGO League (FLL) is a result of an impressive alliance between FIRST and LEGO Companies. FLL is an international hands-on, sports-like, robotics program for children 9-14 years of age. Guided by mentors and their own imagination, FLL students solve actual engineering challenges, develop important life skills, and learn to contribute positively to society, enhancing characteristics such as team-building, problem solving, analytical thinking and creativity.

Every September, a new Challenge is unveiled and over the course of 8 weeks, the FLL international teams strategize, design, build, program, test and refine a fully autonomous robot capable of completing the mission. During the process, the teams also search the web, talk to scientists, visit the Library and develop compelling presentations that relate to a problem or opportunity facing the world today.

### **FLL in Egypt 2007**

This year 2007 the mission is the “Power Puzzle”, Power Puzzle investigates how our energy choices (for example to heat our homes, fuel our cars, charge our cell phones, power our computers, or even download music to our iPods) impact the environment, economy, and life around the globe. It also explores which resources we should use and why, as well as explore how energy production and consumption choices affect the planet and our quality of life today, tomorrow, and for future generations.

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## *Participating Teams*

*The New Pharos (Bibliotheca Alexandrina)*

*Techno Future 1 (Alexandria)*

*The Storm (Bibliotheca Alexandrina) (Alexandria)*

*The Royal Team (Victory College) (Alexandria)*

*Techno Future 2 (Alexandria)*

*Techno Future 3 (Alexandria)*

*Cairo Mannara Language School for girls (Cairo)*

*Al Forsan (Alexandria)*

*Futures Tech (Cairo)*

*E-Mind (El-Salam - Asyout )*

*El-Manar Language School (Ismailia)*

*The Legend (El-Salam - Asyout )*

*Delta Language School (Mansoura)*

*The Experimental Intelligence (El-Salam - Asyout )*

## *Referees*

**Eng. Mark Adel**

**Eng. Khalaf Bekhiet**

**Eng. Asmaa Farag**

**Eng. Karim Yousry**

**Eng. Fady Adel**

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## *Training*

Four of the participating teams from Alexandria were trained at RoboAlex Lab at the Planetarium Science Center. These teams are: The Storm, The New Pharos , The Knights, and The Royal Team (Victoria College). The rest of the participating teams already have RoboLab Centers in their respective centers, where they conducted their training.

## *Competition Day*

### *Competition Program (Annex I)*

The FLL competition took place on 17–18 February 2008 at the Bibliotheca Alexandrina Conference Center.

On the first day each team had 5 minutes for presentation and another 3 minutes for the team work test, after which each team had two other ungraded. The participating teams enthusiastically presented their work in front of an encouraging and supportive audience.

On the second day each team had three official trials, the highest score was taken to determine the winning team.

### *Competition Results (Annex II)*

The Winners and the First Place: **Techno Future 1**

Second Place: **Cairo Mannara language School**

Third Place: **The Knights**

Fourth Place: **Techno Future 3**

Winners of the unofficial rounds were **The Storm and Techno Future 1**

## *The Local Budget*

## *Medals and Trophies*

### The guests

All participating teams received honorary certificates for their active participation in the contest. Mr. Fathy El-Amrousy, Director of the General Education Department ( who came on behalf of Dr. Yousry El-Gamal), presented the certificates to the participants. He also presented the trophies and medals to the first four winning teams.

The first team, Techno Future 1, will be representing Egypt in the international competition that will take place at Georgia Dome in Atlanta, USA, on 17-19 April 2007.

## History

### FLL in Egypt 2006

In 2006, the mission was the "Nano Quest". Nanotechnology is a new scientific frontier that will impact many facets of society, from medicine to computers to the environment.

The nano world is 100,000 times smaller than the thickness of a single strand of hair. At the nano level, everything jumps and shakes—even solid things, such as tabletops. Imagine, the atoms that make up a solid object constantly move and vibrate!

Nanotechnologists move atoms and molecules around to produce amazing new discoveries. Scientists believe that someday nanotechnology will allow us to cure diseases using devices small enough to travel through the human body. Others believe nanotechnology will allow us to travel into space in an elevator using a system of tiny tubes and a centrifugal force. Thanks to nanotechnology, now you can buy things, such as stain-resistant clothes and bouncier tennis balls.

The "Nano Quest" robot game mission models represent just some of the technology and ideas that scientists are thinking about or working on presently. Through the "Nano Quest" project, participants were asked to join the exploration of this new and fascinating world.



The "FLL in Egypt 2006" competition finale took place on 14 December 2006 at the Bibliotheca Alexandrina Conference Center. Thirteen teams from different schools from all over Egypt participated in addition to the BA team. Each group had 15 minutes to present their work: 7.5 minutes for the preparation, 5 minutes for presentation and 2.5 minutes for the mission.

The winner team – Meharram Bek School – participated in the International World Festival at the Georgia Dome, Atlanta, Georgia, USA from 12 to 14 April 2007.

## **FLL in Egypt 2005**

On 9 February 2006, the first FLL in Egypt competition was organized by the PSC in cooperation with IEEE GOLD Egypt. The aim of the "Ocean Odyssey Challenge" was that the participants apply science and technology to better understand the world's oceans; the importance of which was tragically enhanced by the tremendous losses associated with the recent Tsunami in the Indian Ocean.

Four school teams, each including five students and one supervisor, participated in the Challenge. They were trained for two months in the RoboAlex Lab at the ALEXploratorium, and on the day of the event presented the results. All participants received medals and a special LEGO trophy was awarded to the leading teams.

## Annex I

### FLL In Egypt

#### Day 1–17 February 2008

	Time		Place	Action
	From	to		
<b>Day 1</b>	9:00 am	6:00 pm	Parking	Gathering
	9:30 am	11:00 am	Small Theater	Opening Ceremony
	11:00 am	2:00 pm	Small Theater	Presentation
	11:00 am	3:00 pm	Parking	Training
	11:00 am	2:00 pm	Room A	Teamwork
	2:00 pm	3:00 pm	Restaurant	Break
	3:00 pm	7:00 pm	Small Theater	Training Round

#### Day 2–18 February 2008

	Time		Place	Action
	From	to		
<b>Day 2</b>	9:00 am	1:00 pm	Parking	Gathering
	9:30 am	1:15 pm	Great Hall	Official Challenges
	2:00 pm	3:00 pm	Great Hall	Unofficial Challenges
	3:00 pm	4:00 pm	Restaurant	Break
	4:00 pm	4:30 pm	Planetarium	Planetarium Show
	4:30 pm	6:30 pm	Great Hall	Closing Ceremony

## Annex II

### Judgment Sheets

Team	Team Name	Game 1	Game 2	Game 3	Best
1	Victory College	165	108	215	215
2	Expe. Intelligence	260	260	200	260
3	The Knights	325	330	285	330
4	Techno Future 2	320	310	260	320
5	The New Pharos	210	300	240	300
6	El-Manar Ismailia	93	145	190	190
7	Techno Future 1	360	245	320	360
8	The Storm	230	325	255	325
9	Delta El-Mansoura	195	245	245	245
10	Future Tech	280	175	73	280
11	E- Mind	200	170	250	250
12	Techno Future 3	290	310	300	310
13	Manara Cairo	260	315	345	345
14	The Legand	280	265	108	280