



11th Conference, Nov 2008

Christophe Scicluna,  
Vincent Baron  
present:

# 2001-2008: UNINTERRUPTED PRESENCE OF THE FRENCH EXPERIMENTAL LABORATORY AT SCIFEST AFRICA



2001-2008: UNINTERRUPTED PRESENCE OF THE FRENCH LABORATORY AT SCIFEST AFRICA



# AN INITIATIVE FROM THE EMBASSY OF FRANCE



SINCE 2001, THE EMBASSY OF FRANCE IS SPONSORING THE PARTICIPATION OF FRENCH VOLUNTEERS TO PROPOSE WORKSHOPS AT SCIFEST AFRICA, A SCIENCE FESTIVAL HELD IN GRAHAMSTOWN, SOUTH AFRICA.

SINCE 2001, SEVERAL LEADERS, COORDINATED BY CHRISTOPHE SCICLUNA, PROPOSED ORIGINAL WORKSHOPS AND EXHIBITIONS - "THE FRENCH EXPERIMENTAL LABORATORY"



SINCE 2001, SEVERAL PARTNERS HAVE CONTRIBUTED TO THE SUCCESS OF THIS ADVENTURE





# THOUSANDS (1981) OF YOUNG ENGINEERS

| YEAR | #Leaders | Topics   | Attendance | TV appearance                                |
|------|----------|--|------------|--|
| 2001 | 2        | <ul style="list-style-type: none"> <li>•Exhibition: You are the Robot</li> <li>•Workshop: Micro rockets</li> </ul>   | 323        | None   |
| 2002 | 2        | <ul style="list-style-type: none"> <li>•Workshop: Weather Balloon</li> <li>•Workshop: Micro rockets</li> </ul>   | 107        | Morning Live, SABC2                          |
| 2003 | 1        | <ul style="list-style-type: none"> <li>•Workshop: Hot Air Balloon</li> <li>•Workshop: Micro rockets</li> </ul>   | 110        | Morning Live, SABC2                          |
| 2004 | 2        | <ul style="list-style-type: none"> <li>•Workshop: 100% mechanical Robots</li> <li>•Workshop: Micro rockets</li> </ul>  | 177        | Morning Live, SABC2                          |
| 2005 | 2        | <ul style="list-style-type: none"> <li>•Workshop: Telecommunications</li> <li>•Exhibition: Telecommunications</li> <li>•Workshop: Micro rockets</li> </ul>   | 195        | Morning Live, SABC2<br>Report on SABC Africa |
| 2006 | 3        | <ul style="list-style-type: none"> <li>•Discovery room: Satellites</li> <li>•Workshop: Weather Balloon</li> <li>•Workshop: Micro rockets</li> </ul>  | 238        | H2B2<br>Report on SABC Africa                |
| 2007 | 3        | <ul style="list-style-type: none"> <li>•Exhibition: Satellites</li> <li>•Workshop: build your satellite</li> <li>•Workshop: design your satellite</li> <li>•Workshop: satellite mission control</li> <li>•Workshop: Micro rockets</li> </ul> | 502        | None   |
| 2008 | 3        | <ul style="list-style-type: none"> <li>•Workshop: Solarpod</li> <li>•Workshop: Water rockets</li> <li>•Workshop: Micro rockets</li> </ul>  | 329        | Knock-Knock                                  |

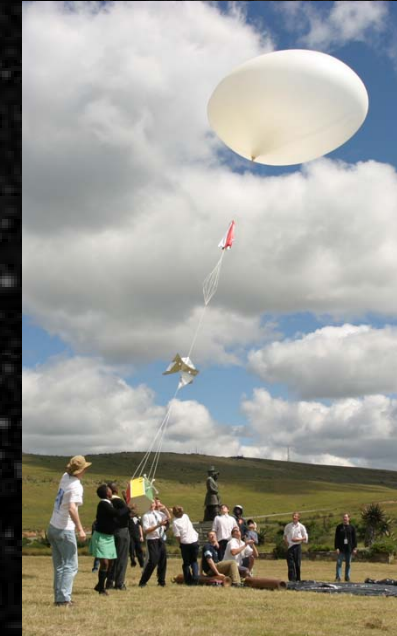


# JOINT EVENT: KNOWLEDGE SHARE & TRANSFER

2006



## WEATHER BALLOON WORKSHOP



2007



## SATELLITE EXHIBITION



# THE FRENCH EXPERIMENTAL LABORATORY

## A SET OF SIMPLE GUIDELINES RULE THE PREPARATION OF OUR CONTENTS

1 workshop a day, new each year

Maximum duration: 3 hours

For youth from 8 to 18,  
possibly by age group

Host as much people as possible

Workshop easy to localize

Cheap or reused material

Object to be manufactured and  
brought back at home, functioning

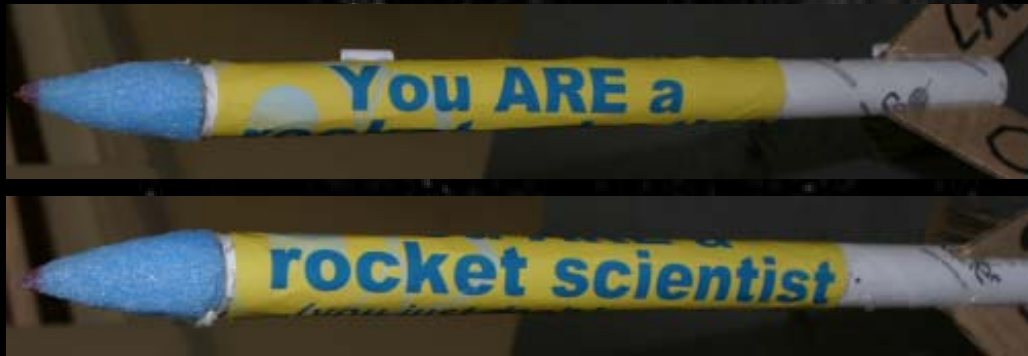
No kit, no manual : participants make use  
of their personal “hidden” knowledge  
and imagination

Scientific & pedagogic content: experiment!

Innovative workshop with regard to  
previous years festival’s content

# 2001-2008: THE FAMOUS MICRO-ROCKETS

**MICRO-ROCKETS ARE MADE OF CARDBOARD, FOAM AND PLASTIC BAG. THEY ALLOW NOVICE TO DISCOVER ABOUT STABILITY, FLIGHT MECHANISM... AND SPACE!**



**GRAHAMSTONIANS AND VISITORS ARE FOND OF THESE SMALL ROCKETS AS IT IS AN EASY TO MANUFACTURE SPACE VEHICLE!**

**RATHER A LAB THAN A SCHOOL THE WORKSHOP IS THE PLACE WHERE « TOOLS + MATERIAL + IMAGINATION » AND A PINCH OF HIDDEN KNOWLEDGE TAKE FORM ONTO A ROCKET**

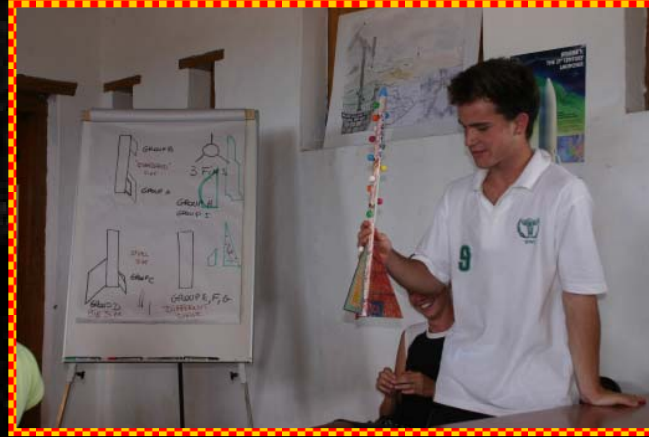




# 2001-2008: THE FAMOUS MICRO-ROCKETS



**YOUNG ENGINEERS  
(NECESSARY)**



**DESIGN  
(RECOMMENDED)**



**TEAM WORK  
(MANDATORY)**



**CREATIVITY  
(INDISPENSABLE)**



**LAUNCH PAD**

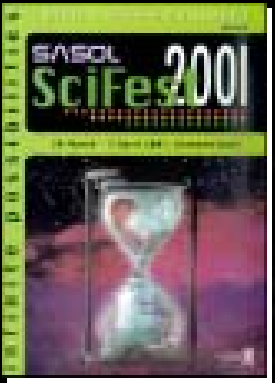
**WOW !**



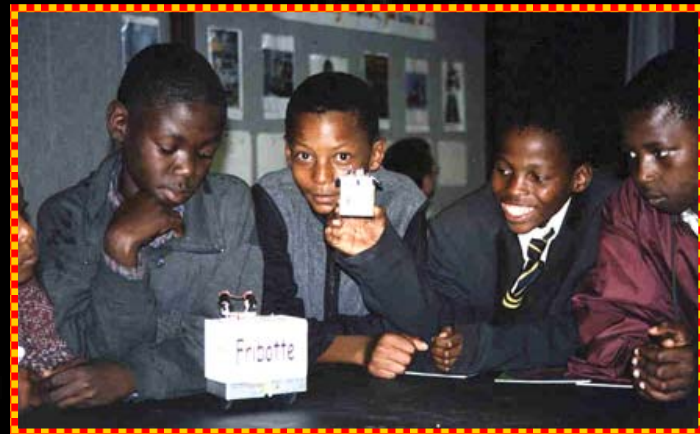


# 2001: "YOU ARE THE ROBOT" EXHIBITION

OUR EXHIBITION AIMED AT MAKING PEOPLE MORE SENSITIVE TO ROBOTICS, STARTING FROM THE IDEA THAT FEW PEOPLE KNOW THE TRUE DEFINITION OF THE WORD 'ROBOT'



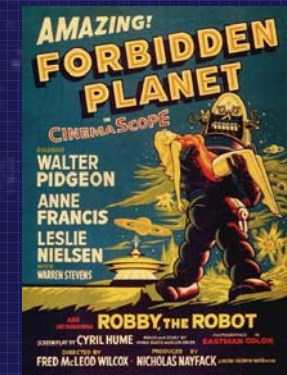
WE PROPOSED TO MAKE THE PUBLIC FEEL LIKE A ROBOT BY TAKING AWAY, FROM ONE OR MANY PEOPLE, ONE THE 5 SENSES: SIGHT



THEN WE PROPOSED THE KIDS TO OBSERVE THE BEHAVIOUR OF A VERY BASIC ROBOT (LENT BY THE FRENCH ROBOTICS TEAM FRIBOTTE) BEFORE CONCLUDING ABOUT THE DEFINITION OF A ROBOT



ROBOT?



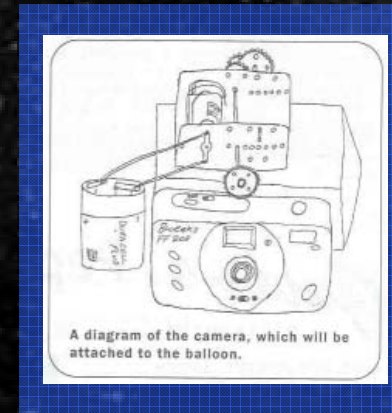


# 2002: WEATHER BALLOON

**PURPOSE: DESIGN AND MANUFACTURE A SCIENTIFIC BASKET AND ITS CONTENT WITH A GROUP OF YOUTH.**



**WORKSHOP SCHEDULE:  
13 KIDS, 3 HOURS PER DAY  
OVER 1 WEEK: CHALLENGING!**



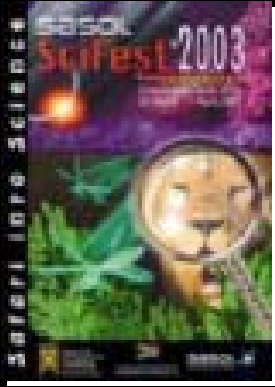
**WELL DEVELOPED IN FRANCE,  
THIS PROGRAMME AIMS AT:**

- **MAKING YOUTH DEVELOP A PROJECT WITH CONSTRAINTS**
- **ORGANIZING A LONG TERM PROJECT**
- **MAKING YOUTH WORK TOGETHER ON THE SAME TOPIC.**



# 2003: MONTGOLFIERE (HOT AIR BALLOON)

« JOSEPH AND ETIENNE MONTGOLFIER INVENTED THE HOT AIR « OPEN » BALLOON (MONTGOLFIERE) THAT FIRST FLEW OVER PARIS IN 1783. DURING THIS WORKSHOP YOU WILL LEARN WHY THE BALLOON FLIES AND WILL MANUFACTURE TWO MONTGOLFIERES TO BE LAUNCHED IN THE FOUNTAIN COURT AT THE MONUMENT AT 12 NOON! » - FROM SCIFEST PROGRAM





# 2004: 100% MECHANICAL ROBOT



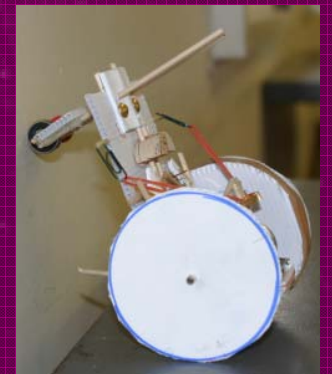
THE ROBOTICS WORKSHOP IS BASED ON 3 CHALLENGES:

- NO TABLE FALL: YOUR ROBOT MUST NOT FALL FROM THE TABLE !
- SCORE IT: YOUR ROBOT MUST DROP A PING-PONG BALL IN A BASKET
- TOUCH'N BACK: YOUR ROBOT MUST REACH THE WALL AND COME BACK



BUT HOW CAN I MAKE A ROBOT TO MEET ONE OF THEM ?

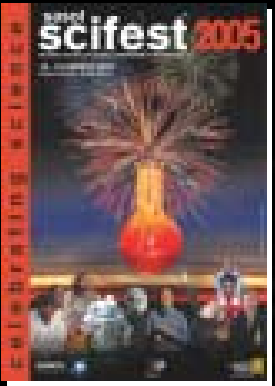
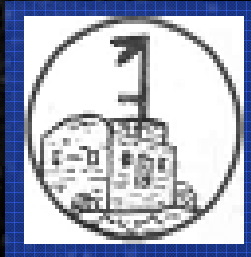
1. FIRST DRAW A ROBOT AND DESCRIBE IT TO THE GROUP
2. THEN DISCOVER TOGETHER SOME SIMPLE MECHANISMS
3. CHOOSE A CHALLENGE
4. PICK THE AVAILABLE MATERIAL AND DO IT YOURSELF !



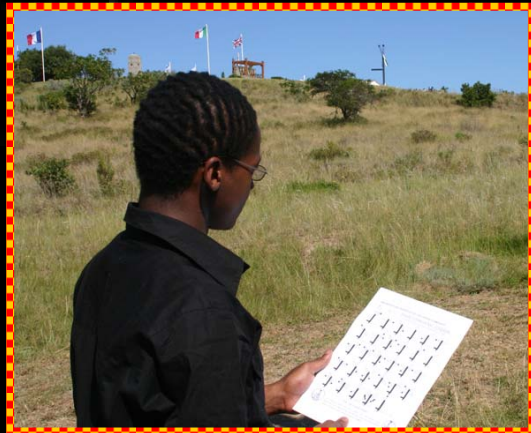
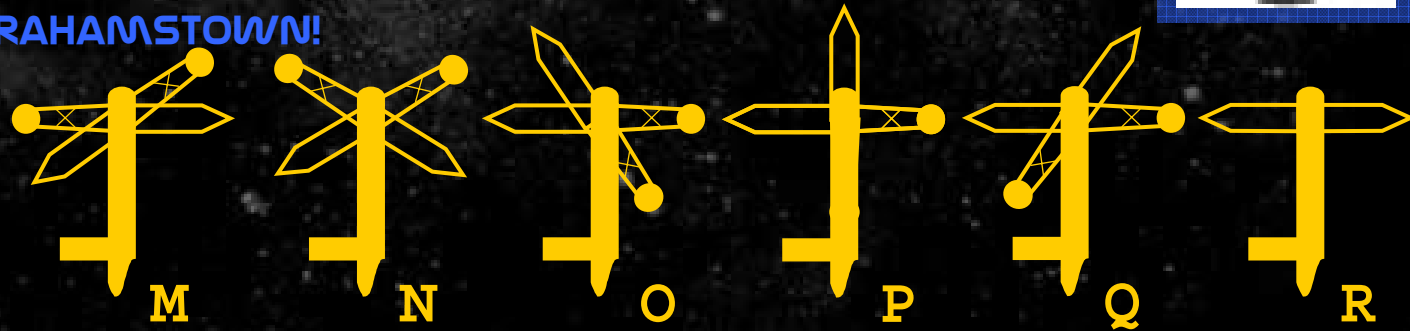


# 2005: TELECOMMUNICATIONS

IN 1793 THE CHAPPE BROTHERS ESTABLISHED THE FIRST COMMERCIAL SEMAPHORE SYSTEM BETWEEN TWO LOCATIONS NEAR PARIS. EVEN NAPOLEON THOUGHT THIS WAS A GREAT IDEA. SOON THERE WERE SEMAPHORE SIGNALLING SYSTEMS COVERING THE MAIN CITIES OF FRANCE. THIS TELECOMMUNICATION SYSTEM SPREAD TO ITALY, GERMANY AND RUSSIA - AND ALL THE WAY TO THE TIP OF AFRICA TO GOOD OLD GRAHAMSTOWN!



FOR SCIFEST, AND THANKS TO THE EMBASSY OF FRANCE, TWO SEMAPHORES HAVE BEEN CONSTRUCTED SO THAT MESSAGES CAN BE SENT BETWEEN THE FORT AND THE "FIELD STATION" - SITUATED WITHIN RUNNING DISTANCE OF THE MONUMENT!



KIDS ALSO BUILT THEIR OWN SEMAPHORE & CODE TO PLAY HANGMAN, BATTLESHIP...

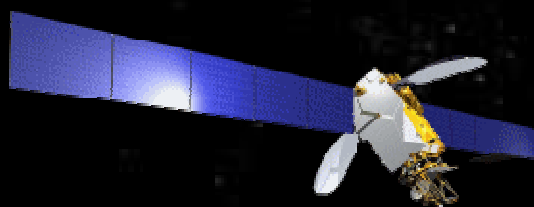
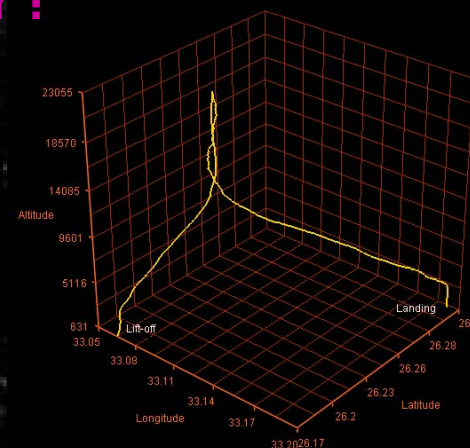
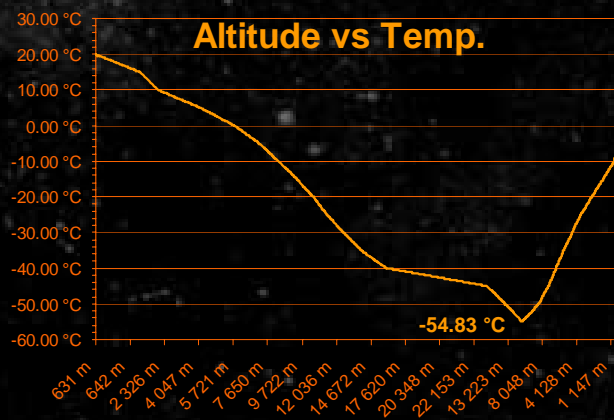
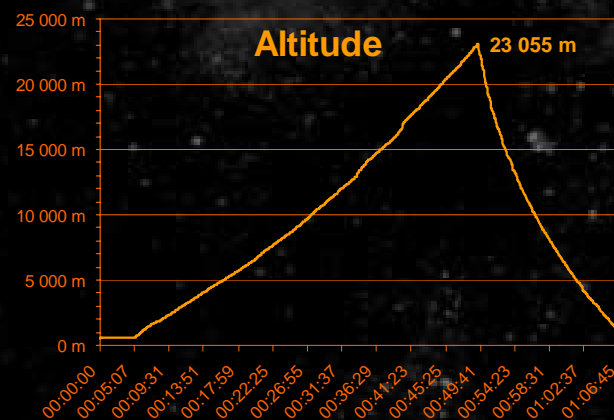




# 2006: WEATHER BALLOON, SATELLITE



## LIVE RESULTS WITH ONBOARD TELEMETRY !



LEARNING, ORBITING...

...FEELING, DISCOVERING...

...EXPERIENCING, MANUFACTURING



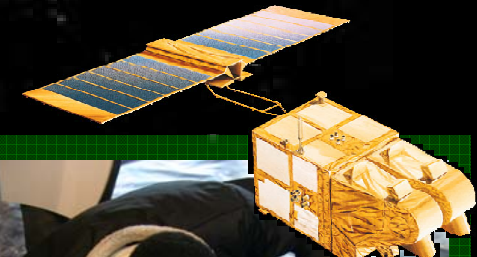
A SATELLITES DISCOVERY ROOM, TO FEEL, EXPERIENCE AND MANUFACTURE



# 2007: THE SPACE CONNECTION

THEY'RE ORBITING ABOVE OUR HEADS, WE CAN'T SEE THEM, BUT THEY ARE PART OF OUR EVERYDAY LIFE. SATELLITES HAVE BECOME INDISPENSABLE. THE EMBASSY OF FRANCE INVITES YOU TO UNDERSTAND WHAT A SATELLITE IS, HOW IT WORKS AND THE DIFFERENT USAGES, THROUGH A COMPREHENSIVE SET OF WORKSHOPS & EXHIBITION

- **BUILD: LEARN ABOUT SATELLITES USAGE, AND ASSEMBLE YOUR OWN**
- **DESIGN: DESIGN A SATELLITE LIKE AN ENGINEER TO MEET THE LAUNCH CONSTRAINTS**
- **MISSION CONTROL: MANOEUVRE YOUR SATELLITE, LIVE, AND "USE" A TRUE SATELLITE**
- **EXHIBITION: DISCOVER SATELLITE IMAGERY WITH SPOT**



**BUILD IT**



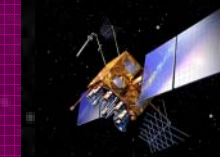
**WEIGH YOUR DESIGN**



**=**



**USE GPS TO CONTROL**

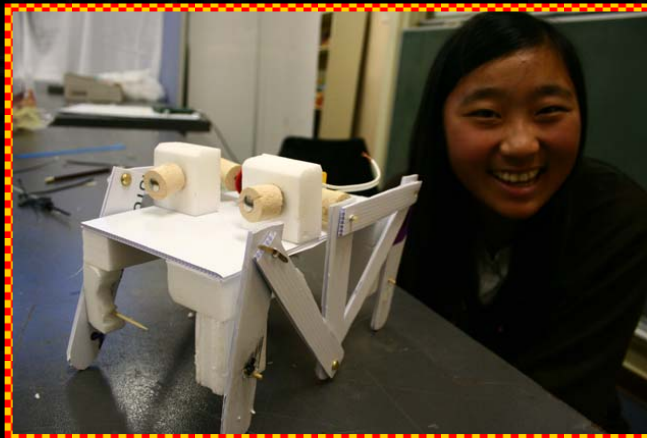


**SPOT PICTURES**



# 2008: WATER ROCKETS & SOLARPODS

HOW FUN CAN IT BE TO LAUNCH A ROCKET IN THE AIR WITH JUST...WATER AND AIR ?  
EXPERIENCE WITH US THE FUN OF THE LAUNCHING AND THE MULTIPLE POSSIBILITIES  
OFFERED BY WATER ROCKETS

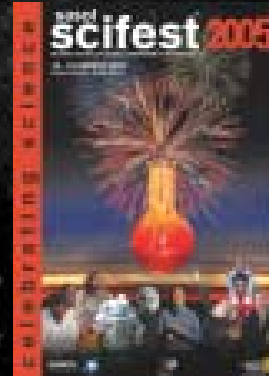
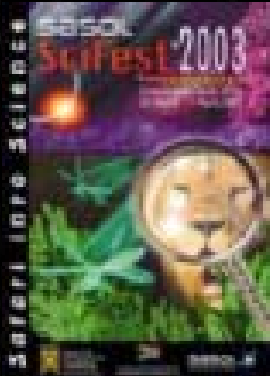
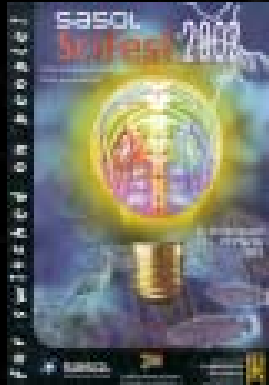


2 LEGS, 4 LEGS, 6 LEGS, 8 LEGS ?  
HOW MANY DOES IT TAKE FOR A  
ROBOT TO WIN A SPEED RACE? HOW  
EFFICIENTLY CAN A ROBOT TAKE  
ADVANTAGE OF THE SOLAR ENERGY?

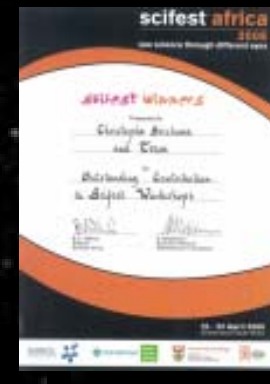
TEAM UP, WARM UP YOUR BRAINS  
AND COME TO BUILD UP THE FASTEST  
LEGGED ROBOT FROM A SOLAR CELL,  
A MOTOR AND YOUR IMAGINATION.



# REMARKED & AWARDED CONTRIBUTION



## 5 AWARDS IN 8 YEARS





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THANK YOU! SEE YOU NEXT YEAR 😊

