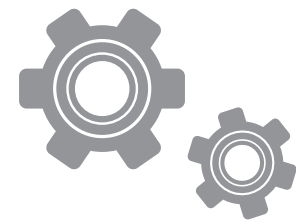


Gadget Factory



HOLIDAY PROGRAMME | 10 DECEMBER 2018 - 11 JANUARY 2019

DAILY PROGRAMME: 10 – 23 DECEMBER 2018

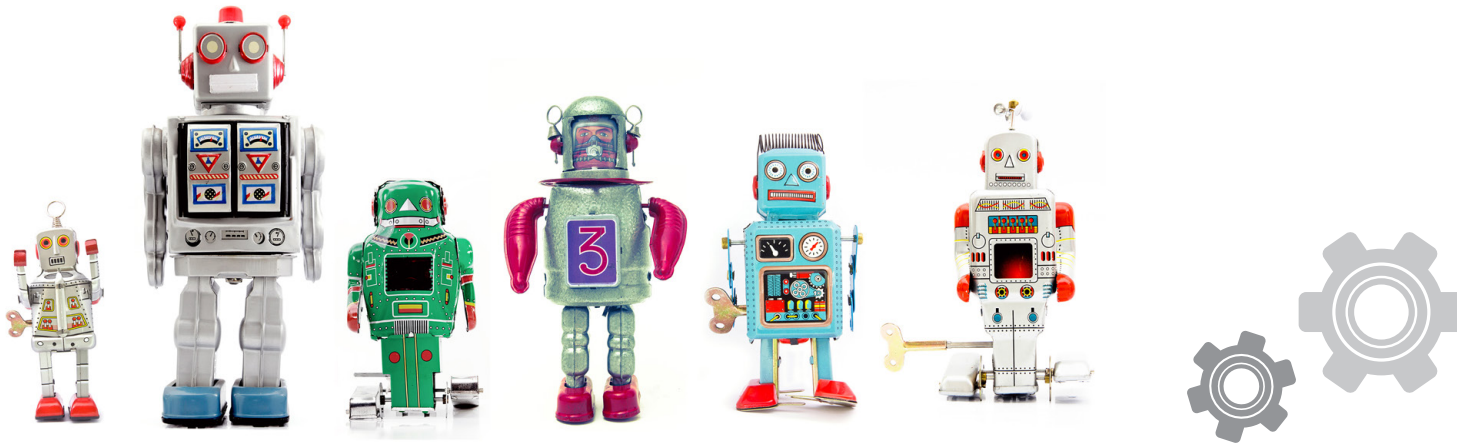
| TIME & VENUE | MONDAY 10 DECEMBER | TUESDAY 11 DECEMBER | WEDNESDAY 12 DECEMBER | THURSDAY 13 DECEMBER | FRIDAY 14 DECEMBER | SATURDAY 15 DECEMBER | SUNDAY 16 DECEMBER |
|------------------------|--|------------------------------------|--------------------------------------|---|---|--------------------------------------|---|
| 10:00 - 11:00 VENUE | Exploring Robotics Festo Lab | Chemistry Rocket Dow Lab | Popsicle Boat Dow Lab | Drawing Robot Festo Lab | Balloon Helicopter Festo Lab | Circuit Assorted Festo Lab | Homemade Vacuum Cleaner Dow Lab |
| 11:30 - 12:30 VENUE | Balloon Helicopter Dow Lab | Lighthouse Festo Lab | Circuit Assorted Festo Lab | Homemade Vacuum Cleaner Dow Lab | Popsicle Boat Dow Lab | Chemistry Rocket Dow Lab | Lighthouse Festo Lab |
| 13:00 - 14:00 VENUE | Science Show SAP Auditorium | | | | | | |
| 14:30 - 15:30 VENUE | Hologram Festo Lab | Li-fi Dow Lab | Bubble car Dow Lab | Li-fi Festo Lab | Action-Reaction Car Festo Lab | Hologram Festo Lab | Balloon Helicopter Dow Lab |

| TIME & VENUE | MONDAY 17 DECEMBER | TUESDAY 18 DECEMBER | WEDNESDAY 19 DECEMBER | THURSDAY 20 DECEMBER | FRIDAY 21 DECEMBER | SATURDAY 22 DECEMBER | SUNDAY 23 DECEMBER |
|------------------------|---|-----------------------------------|---|--|--|---|---|
| 10:00 - 11:00 VENUE | Homemade Vacuum Cleaner Festo Lab | Popsicle Boat Dow Lab | Light Box Dow Lab | DIY Gadget Festo Lab | Circuit Assorted Festo Lab | Popsicle Boat Dow Lab | Homemade Vacuum Cleaner Festo Lab |
| 11:30 - 12:30 VENUE | Balloon Helicopter Dow Lab | Drawing Robot Festo Lab | Homemade Vacuum Cleaner Festo Lab | Bubble car Dow Lab | Drawing Robot Dow Lab | Action-Reaction Car Festo Lab | Lighthouse Dow Lab |
| 13:00 - 14:00 VENUE | Science Show SAP Auditorium | | | | | | |
| 14:30 - 15:30 VENUE | DIY Gadget Festo Lab | Li-fi Dow Lab | Chemistry Rocket Dow Lab | Balloon Helicopter Festo Lab | Exploring Robotics Festo Lab | Balloon Helicopter Dow Lab | Li-fi Festo Lab |



DAILY PROGRAMME: 24 – 30 DECEMBER 2018

| TIME & VENUE | MONDAY 24 DECEMBER | TUESDAY 25 DECEMBER | WEDNESDAY 26 DECEMBER | THURSDAY 27 DECEMBER | FRIDAY 28 DECEMBER | SATURDAY 29 DECEMBER | SUNDAY 30 DECEMBER |
|------------------------|-----------------------------------|--------------------------------|---|--------------------------------|------------------------------------|--|---|
| 10:00 - 11:00 VENUE | Light Box Dow Lab | CENTRE CLOSED CHRISTMAS DAY | Exploring Robotics Dow Lab | DIY Gadget Festo Lab | Popsicle Boat Dow Lab | DIY Gadget Festo Lab | Li-fi Festo Lab |
| 11:30 - 12:30 VENUE | Drawing Robot Festo Lab | | Action-Reaction Car Festo Lab | Bubble car Dow Lab | Innovation 4.0 Festo Lab | Bubble car Dow Lab | Light Box Dow Lab |
| 13:00 - 14:00 VENUE | CENTRE CLOSES EARLY | | Science Show SAP Auditorium | | | | |
| 14:30 - 15:30 VENUE | | | Chemistry Rocket Dow Lab | Lighthouse Festo Lab | Li-fi Dow Lab | Exploring Robotics Festo Lab | Action-Reaction Car Festo Lab |



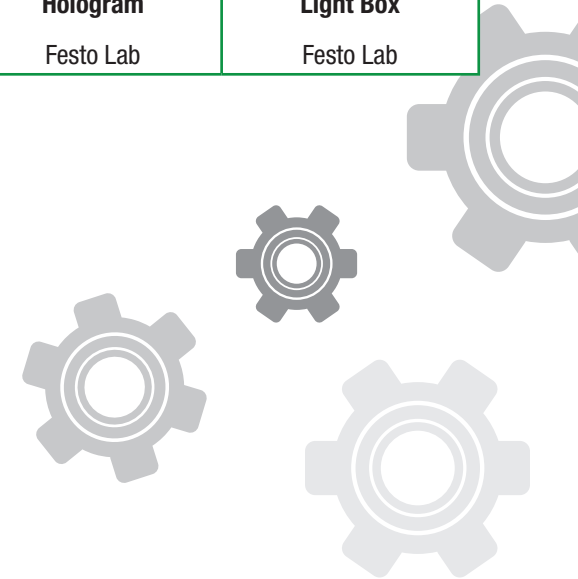
SCI-BONO CONTACT DETAILS:

011 639 8400 | Corner of Miriam Makeba & Helen Joseph Streets | Newtown | Johannesburg
www.sci-bono.co.za

DAILY PROGRAMME: 31 DECEMBER – 11 JANUARY 2018

| TIME & VENUE | MONDAY 31 DECEMBER | TUESDAY 1 JANUARY | WEDNESDAY 2 JANUARY | THURSDAY 3 JANUARY | FRIDAY 4 JANUARY | SATURDAY 5 JANUARY | SUNDAY 6 JANUARY |
|------------------------|------------------------------------|---|--|------------------------------------|---|--|---|
| 10:00 - 11:00 VENUE | Innovation 4.0 Festo Lab | CENTRE CLOSED NEW YEAR'S DAY | DIY Gadget Festo Lab | Lighthouse Festo Lab | Action-Reaction Car Festo Lab | Exploring Robotics Festo Lab | Action-Reaction Car Festo Lab |
| 11:30 - 12:30 VENUE | Lighthouse Dow Lab | | Action-Reaction Car Dow Lab | Light Box Dow Lab | Lighthouse Dow lab | Chemistry Rocket Dow Lab | Bubble car Dow Lab |
| 13:00 - 14:00 VENUE | CENTRE CLOSES EARLY | | Science Show SAP Auditorium | | | | |
| 14:30 - 15:30 VENUE | | | Exploring Robotics Festo Lab | Innovation 4.0 Festo Lab | DIY Gadget Festo Lab | Hologram Festo Lab | Light Box Festo Lab |

| TIME & VENUE | MONDAY 7 JANUARY | TUESDAY 8 JANUARY | WEDNESDAY 9 JANUARY | THURSDAY 10 JANUARY | FRIDAY 11 JANUARY |
|------------------------|---------------------------------------|-----------------------------------|--|------------------------------------|--------------------------------------|
| 10:00 - 11:00 VENUE | Innovation 4.0 Festo Lab | Bubble car Dow Lab | DIY Gadget Dow Lab | Hologram Dow Lab | Li-fi Dow Lab |
| 11:30 - 12:30 VENUE | Circuit Assorted Dow Lab | Drawing Robot Festo Lab | Exploring Robotics Festo Lab | Innovation 4.0 Festo Lab | Circuit Assorted Festo Lab |
| 13:00 - 14:00 VENUE | Science Show SAP Auditorium | | | | |
| 14:30 - 15:30 VENUE | Lighthouse Festo lab | Hologram Dow Lab | Li-fi Dow Lab | Chemistry Rocket Dow Lab | Drawing Robot Dow lab |



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WORKSHOP BLURBS

| BUBBLE CAR | AGE | COST |
|--|-----|-------|
| What is a chemical reaction? Is it possible to power up a car using bubbles? Using household chemicals like baking soda, we can create a car that is powered a chemical reaction. | 7+ | R8.00 |
| CHEMISTRY ROCKET | AGE | COST |
| Rockets are definitely marvels of engineering. These amazing gravity-defying machines have lifted test material, people, and even animals into space. But how are rockets able to travel so high up? What propels them and what is the science behind it all? Find out this and more while building some simple rockets. | 7+ | R8.00 |
| HOMEMADE VACUUM CLEANER | AGE | COST |
| A vacuum cleaner is a device that uses an air pump to create a partial vacuum to suck up dust and dirt. Come join us as we make our own homemade vacuum cleaner. | 6+ | R15 |

| ACTION-REACTION CAR | AGE | COST |
|--|-----|-------|
| The action reaction principle is also applicable in air. Come let's get the car moving with an engine which is not connected to wheels but interacting with the air similar to planes. | 6+ | R8.00 |
| BALLOON HELICOPTER | AGE | COST |
| Newton's 3 rd Law states that every force is opposed by an equal but opposite force, let's put it into practice by creating your own Balloon Helicopter. | 6+ | R8.00 |
| HOLOGRAM | AGE | COST |
| 3D images normally require special glasses to view them, come make your own hologram that will allow you to see 3D pictures with your naked eye. Note: Bring your smartphone. | 6+ | R8.00 |

| DIY GADGET | AGE | COST |
|---|-----|-------|
| In this DIY workshop, you get to build your own gadget, so bring along your creative ideas and let us see what you can make. | 8+ | R8.00 |
| EXPLORING ROBOTICS | AGE | COST |
| Robots play a very important role in everyday life. They are equipped with different sensors capable of reacting to different situations. Join us as we explore these amazing machines as we program a robot and see it carrying out your instructions. | 8+ | FREE |
| CIRCUIT ASSORTED | AGE | COST |
| Did you know that graphite is a good conductor of electricity despite being a non-metal? Besides being used to draw, graphite can carry electricity. Learn about graphite by creating your own circuit | 7+ | R8.00 |



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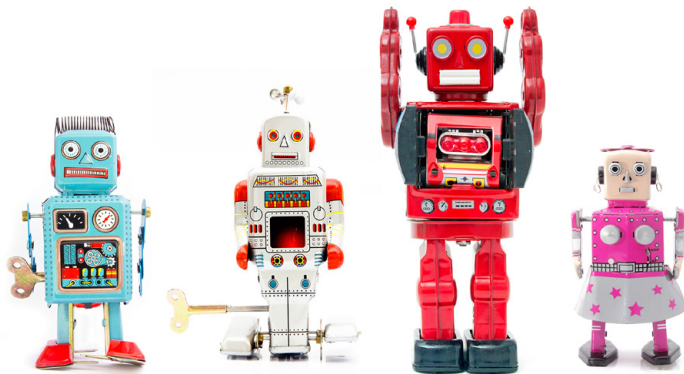


WORKSHOP BLURBS

| LIGHTHOUSE | AGE | COST |
|---|-----|--|
| The world is moving to much safer ways of producing electricity, Renewable Energy (solar, wind, water and geothermal) has proven to produce electricity without producing any harmful gases. Come, create your own Lighthouse, and contribute to the reduction of air pollution. | 8+ | R8.00 or R20.00 if you want to take it home. |
| LI-FI | AGE | COST |
| Li-fi is a technology for wireless communication between devices using light to transmit data in a high speed. Come experience the basic principles underlying the modern Li-fi technology by transmitting music from your cellphone through light. Note: Bring your smartphone | 7+ | R8.00 |

| POPSICLE BOAT | AGE | COST |
|--|-----|--------|
| When the paddle wheel of the boat rotates and pushes water back, the boat is propelled forward. Come use popsicle sticks to make your own boat and even try it in water. | 8+ | R10.00 |
| DRAWING ROBOT | AGE | COST |
| Robots can mimic humans; it only makes sense that there is a drawing robot. Come use simple materials and have fun constructing your own uncontrolled drawing robot. | 6+ | R8.00 |

| LIGHT BOX | AGE | COST |
|---|-----|-------|
| In this light splitting activity, we will explore the science of spectroscopy and find out how the light given off by objects can tell us more than what our eyes can see. | 8+ | R8.00 |
| INNOVATION 4.0 | AGE | COST |
| The fourth industrial revolution is here, Come and experience the mechatronics laboratory, where you will have fun with hands on activities that stimulate your interest in mechatronics and its contribution to the real world industries. | 8+ | FREE |



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