## 2015年度通訊博物館小學生科·藝大作戰



Museu das Comunicações - Actividade de Ciência e Arte para Estudantes do Ensino Básico, 2015 Communications Museum - Science and Arts Activity for Primary Students, 2015

# **Supplementary Rules**

#### 1. Rules of Activity

- The participant has to use the electronic components provided by the organizer to make a **2-dimensional** or **3-dimensional** work and put it on a base of A4-size within the time limit. The design of the work is not limited and participant can bring a picture as reference for making his/her work. 3-dimensional works will be given additional score (5%).
- The participant will be provided with a "component list" and a base of A4-size before the activity starts.
- After the museum staff has announced the start of time-keeping, the participant can take the components from the component racks without restriction on the type and quantity of components. However, the participant cannot put the unused components back into the component racks.
- The finished work should contain the "required components" on the "component list".
- The time limit is 1 hour 30 minutes. When time is up, the participant has to stop making, and put his/her work in the indicated location according to the instruction of the staff. Then the judges will evaluate their works.

## 2. Scoring Criteria

- Artistic & creative design (45%): The name and design of the creative work should match with the theme and its meaning (40%). A 3-dimensional work will be given additional score (5%).
- Relevance to science (20%): Use of science theory and techniques, e.g. making a light on, on/off switch, sound, movement or rotation, etc.
- Completeness (25%): Stable work and its sophistication, use of tools and team cooperation.
- Material-saving (10%): If the participant has unused materials, 1% will be deducted for every 5g, and maximum deduction is 10%.

### 3. Component List

Electronic Component	Actual Component	Symbol	Electronic Component	Actual Component	Symbol
Resistance		<b>-</b>	Integrated circuit (IC)	<b>P</b>	7 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Variable resistance		<b>-</b> ≫₹ -	Motor		<b>M</b>
LED	Fau	Anode Cathoda	Buzzer		
Battery	<b>O</b> 3	<del>-</del>    -	IC socket	REFERE	
Capacitor		<del>+</del>  +	Printed circuit board (PCB)		
Switch		<del></del>	Other materials that are not electronic components		

4. **Tools:** The organizer will provide the tools such as scissors, tapes, glue, sharp-nose pliers, flat-nose pliers, rulers, pens and paper cardboards, etc. Participants are welcome to bring their own tools, but dangerous tools are prohibited (soldering iron, electric drill or hot melt adhesive, etc).