

## 2014 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, 2014 Communications Museum - Science and Arts Activity for Primary Students, 2014

## **Supplementary Rules**

## 1. Rules of Activity

- The participant has to use the electronic components provided by the organizer to make a 3-dimensional work within the time limit. The design of the work is not limited.
- The participant will be provided with a "component list" 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 the work and wait for the judges to score.

## 2. Scoring Criteria

- Artistic & creative design (50%): The name and design of the creative work should match with the theme and its meaning.
- Relevance to science (15%): 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.
- Material-saving (10%): If the participant has unused materials, 5% will be deducted for every 25g, and maximum deduction is 10%.

Electronic Component	Actual Component	Symbol	Electronic Component	Actual Component	Symbol
Resistance		~~	Integrated circuit (IC)		7 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Variable resistance	Ser.	—×** —	Motor	A A	—(M)—
LED		Anode Cathode	Buzzer		۲
Battery	0	-   +	IC socket		
Capacitor		÷l€	Printed circuit board (PCB)		
Switch			Other materials that are not electronic components		

3. Component List

4. **Tools:** The organizer will provide the tools such as scissors, tapes, glue, adhesive, 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).