



[SUPPLEMENTARY RULES]

1. **Rules of Activity**

- a) The participant has to use the electronic components provided by the organizer to make a design work and put it on a A4-size matt within the time limit. Participants can bring a picture for reference when making their works. Requirements for each group are listed below:
 - Group A (Primary 1 to 4): 2-dimensional or 3-dimensional work, theme not limited;
 - Group B (Primary 5): 3-dimensional work, theme not limited;
 - Group C (Primary 6): 3-dimensional work, the theme is “**My Happy Buddy**”.
- b) Before the activity starts:
 - Each participant will be provided with an “A4-sized matt”, “Point Redemption Coupons” and two 1.5V AA batteries.
 - The “Point Redemption Coupons” are used for redeeming materials. For detailed redemption rules, please refer to the **Points Redemption Coupons** and **Conversion Table**. The un-used points will be counted as additional scores.
 - Each team has two minutes to redeem for their materials. Once redeemed, the materials cannot be returned.
 - Due to the limited time, participants are advised to plan for the types and quantities of their materials, and check that they have enough points for redemption.
- c) After the museum staff has announced the start of time-keeping:
 - All teams should start making their design work.
 - They can choose their required types and quantities of components, and use their “Points Redemption Coupons” to redeem for them with our staff, without limit on the number of times of redemption.
 - The teams can agree among themselves for exchange of their materials on hand.
- d) **The competition time is limited to 2 hours.** When time is up, the participants have to stop and put their works in the indicated location according to the instruction of the staff. Then they have to register for the quantities of their remaining “Points Redemption Coupons” in order for the judges to calculate their scores.

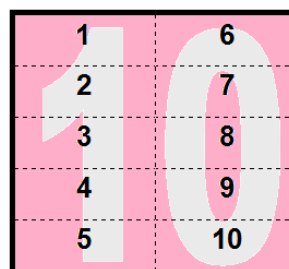
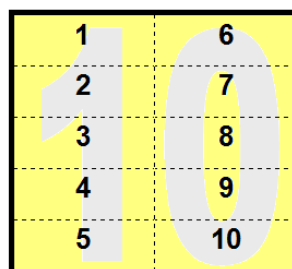
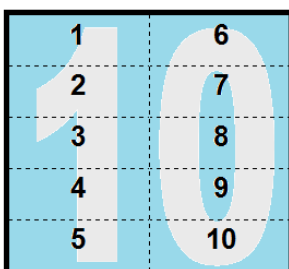
2. **Scoring Criteria**

- a) Creativity (40%): Creative, unique and innovation features.
- b) Artistic Design (40%): The name, theme and design of the creative work should match mutually. Visual effect, colors and motion.
- c) Completeness (20%): Stable construction and its sophistication, use of science theories & techniques (e.g. on/off switch, sound, movement or rotation, etc.) and the tidiness of working table.

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

4. **Points Redemption Coupons and Conversion Table**

- a) There are 3 types of “Points Redemption Coupons” for redeeming different types of materials.
 - Blue: Electronic components, 240 points in total;
 - Yellow: Supplies, 120 points in total;
 - Pink: Decorative parts, 80 points in total.





b) Conversion Table:

Electronic Components (240 points in total)

Name	Points required
Resistor	1
Electrolytic capacitor - small	1
Ceramic capacitor	1
On/off switch	1
LED 3mm	1
Fuse	1
On/off switch - with cap	2
LED 5mm	2
Triode (BJT)	2
Variable resistor	2
Photoresistor	2
Electrolytic capacitor - large	2
Buzzer	3
Heat sink	3
PIN Header	3
Rocker switch	5
LED 10mm	5
Electronic beeper	5
IC Holder - 8 pins / 14 pins	5
PIN Header	5
Alligator clip	5
Motor	10
Battery case	10
Battery case with LED/buzzer (soldered)	15

Supplies (120 points in total)

Name	Points required
Hard wire	1
Soft wire	1
Fiber	1
Heat shrink tube	1
3.5mm audio plug	2
AC adapter	2
Screw terminal	2
Magnet	3
PCB board - small	10
PCB board - medium	20
PCB board - large	30

Decorative parts (80 points in total)

Name	Points required
Straw - thick	1
Straw - thin	1
Toothpick	1
Bamboo stick	1
Cardboard	1
Art paper	1
Paper strip	1
Ribbon	1
Paper cup	2
Wood clip	2
String	2
Colored A4 paper	2
Ping-pong ball - orange / white	5
Glass marble	5
Fan blade	5
Wooden piece - square	5
Ping-pong ball - mixed colors	8
Wooden piece - triangular	8

* Participants can bring their own batteries of other models or decorative parts.