

Model Maker



Complete any one of the following from (A) to (D):

(A)

1. Construct a model aeroplane (the use of a kit is permitted) and meet one of the following flight performances:

(a) Hand-launched glider	25 seconds
(b) Tow-launched glider with a string not longer than 50m	45 seconds
(c) Rubber elastic-band powered	30 seconds
(d) Engine-powered (take off within 15 seconds)	45 seconds
(e) Cable controlled, able to show a smooth take-off, with three laps level flight at approximately 2 m high, then able to climb and dive for landing.	
2. Understand the basic principles of flight, including the three axes and their effects on stability and control.

(B)

1. Build an electric or engine-powered model boat or yacht, with its length not less than 45 cm (the use of kits is permitted) and show it is capable of maintaining a straight course of not less than 23 m.
2. Explain the Archimedes' Principle.

(C)

1.
 - (a) Build an electric powered slot car racer (not allowed to use a kit, only the car body and other accessories from the kit are allowed). Stay on any track for at least 122m without stopping or leaving the slot more than four times; or
 - (b) Build any 2 model cars (the use of kits is permitted) and able to run at least 18m far. Electric motors are allowed.
2. Know how to measure the track and wheelbase, and explain the principle of Ackerman steering.

(D)

3. Build a coach and demonstrate that it can run when attached to a locomotive.
4. Build a scenic model, such as a mine, station, farmhouse, etc. The model should be built in appropriate proportion.
5. Know the control signals for electric trains.



Completion of this Badge, including a total of six months or above in lecture or practicum, would be counted as an equivalent of relevant item under Skills Section of the Hong Kong Award for Young People Bronze Award.