RQHUNO
UPGRADED

```
change point ▾ by 10
say Oh~ for 2 secs
repeat 3
    Call motions button ↑ ▾
    wait 0.1 secs
    Call motions button ↓ ▾
    wait 0.1 secs
```

NEW RQ-HUNO
PROGRAMMABLE HUMANOID ROBOT KIT

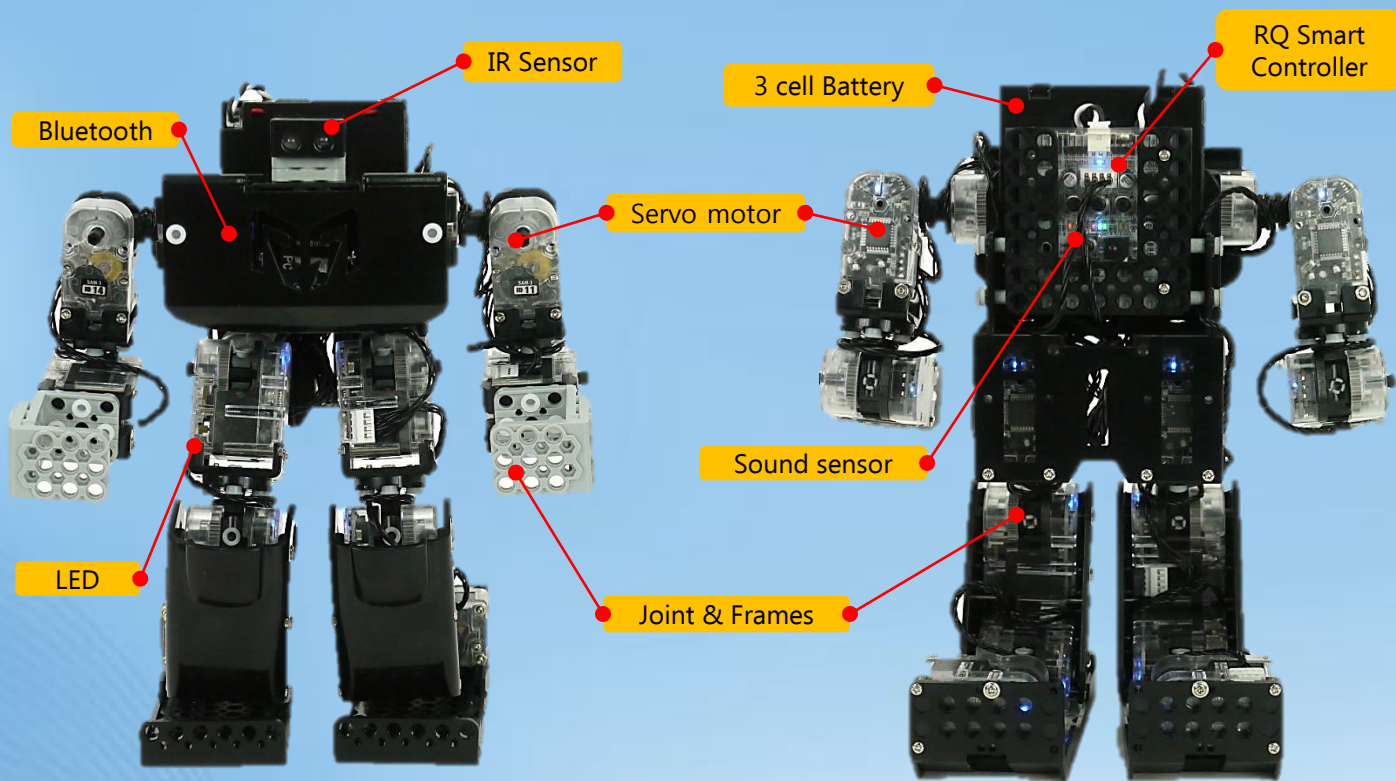| New servo	New battery case	New remote	New frames	SCRATCH BUILDER® Scratch coding

> PROGRMMABLE BY SCRATCH
> EASY ASSEMBLY GUIDE
> CODING WORK BOOK
> SENSORS: IR, SOUND
> 16 DEGREE OF FREEDOM

ROBOBUILDER

Bluetooth

IR Sensor

3 cell Battery

RQ Smart Controller

Servo motor

Sound sensor

LED

Joint & Frames

RQ-HUNO is small humanoid robot kit consisting of a smart controller, 16 servo motors and sensors. It is ideal for robot x coding education in schools, robotics centers and robot camps.
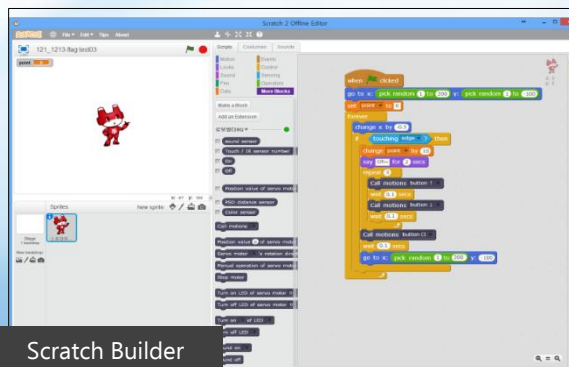
SPECIFICATION

| Items	Details
Size / Weight	19cm / 620g
DOF (Degree of Freedom)	SAM-3 actuator: 16 pcs
IR sensor	Obstacle detection
Sound sensor	Sound detection
Sound output	9 melodies
Battery (11V Li-poly)	Operation: 50~60 min Approx.
Bluetooth	Inclusive

SOFTWARE
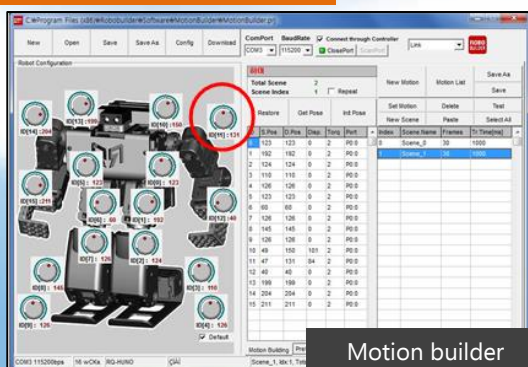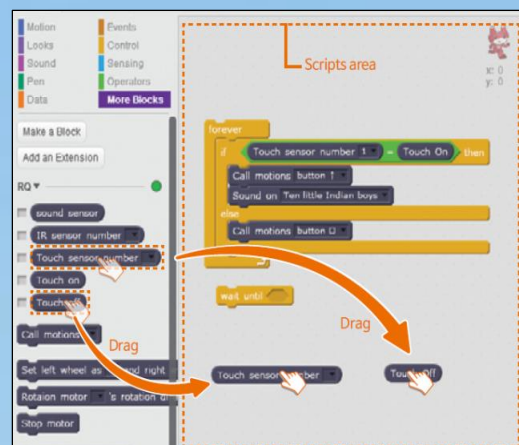
Motion builder

Scratch Builder

SCRATCH BUILDER®

SCRATCH BUILDER
Bridge software that connects Scratch and RQ robots

Scripts area
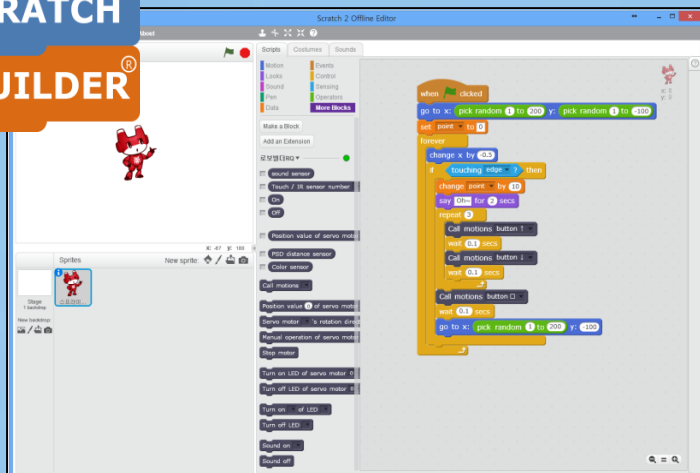
Scratch is developed by the Lifelong Kindergarten Group at the MIT Media Lab. See http://scratch.mit.edu1
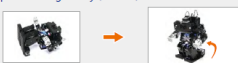
SCRATCH CODING BOOK FOR HUNO

Programming RQ Robot by Scratch
04 RQ HUNO
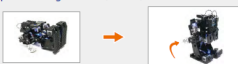
Learning objective)
Code to make the humanoid stand up from its lying position.
1. Learn how to make RQ HUNO stand (A, B).
   Standing up when facing the sky (Stand A)

   Standing up when facing the floor (Stand B)

- Using Scratch's More blocks and Control, let's code to distinguish whether the robot is facing the sky or facing the floor.

2. Learn how to make RQ HUNO stand up when it hears a voice.

26) Learn how to make the robot stand up when it falls face down (Stand B).
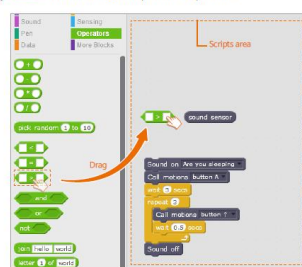
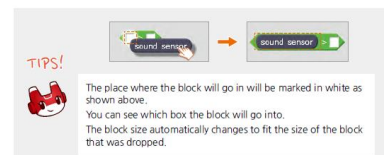27) Change Call motions button A into Call motions button 3.

28) Put down RQ HUNO as shown in the picture and click the Scratch block. RQ HUNO stands up and takes 3 steps forward and the melody plays. Once the motion has been completed, the melody also stops.

5) Drag with the mouse to drop on the scripts area.

Scripts area

6) Drag sound sensor with the mouse to insert into .

TIPS!
The place where the block will go in will be marked in white as shown above.
You can see which box the block will go into.
The block size automatically changes to fit the size of the block that was dropped.

"Computer science is about logic, problem solving, and creativity" [code.org]

Education Process — Repeat

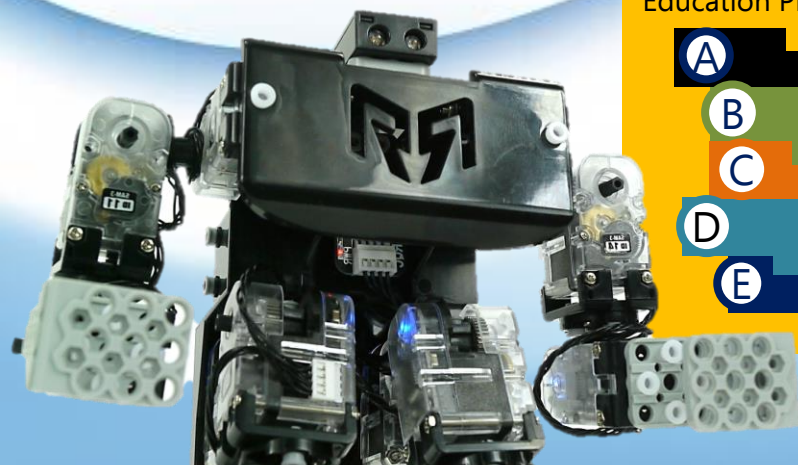Ⓐ Robot Principles
Ⓑ Robot Assembly
Ⓒ Control and Play Games
Ⓓ Coding with Scratch
Ⓔ Improve Logical Thinking & Creativity

HUNO PARTS

Smart controller X 1

SAM-3 X 16

Lithium polymer battery X 1

IR remote X 1

Knee frame X 2

Foot frame X 2

Chest frame X 1

Body frame X 1

IR sensor (+3 pin cable) X 1

Small case frame X 9

3X6 L-shaped frame X 6

3X3 frame X 1

Joint stick (A) X 2

Joint stick (B) X 4

Joint frame X 7

Download set X 1

W cable X 4

Rivet set X 1

Bolt set X 1

Zero adjustment set X 1

Rivet tool X 1

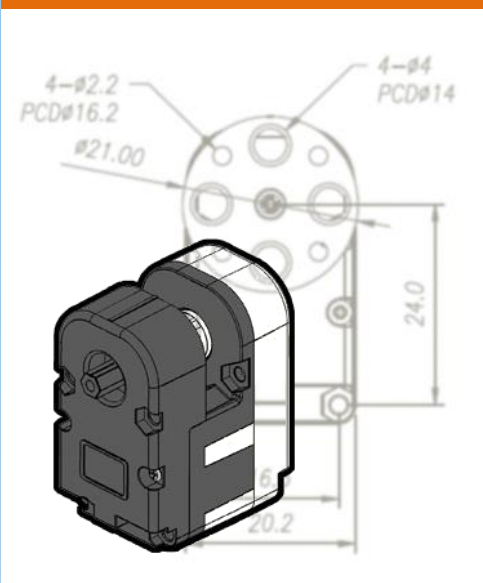Screwdriver X 1

Charging board X 1

Lithium charger X 1

Bluetooth board X 1

Bluetooth chip X 1

SAM-3 SERVO MOTOR

Torque (Kgcm)	3
Rpm	80
Voltage	4~12
Interface	TTL UART
Gear Ratio	243
Position sensor	POT
Max. power	0.62
Weight(g)	22