

WALL-E

* What You Need:

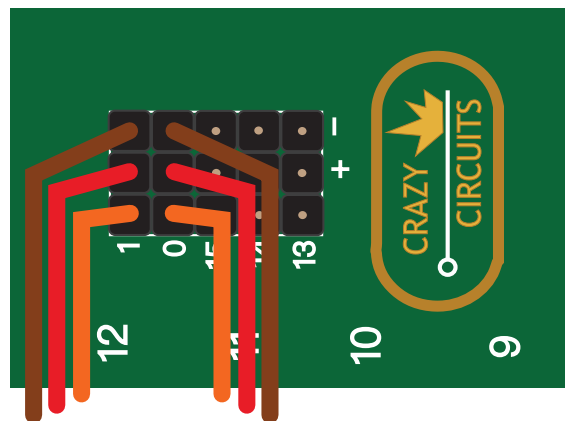
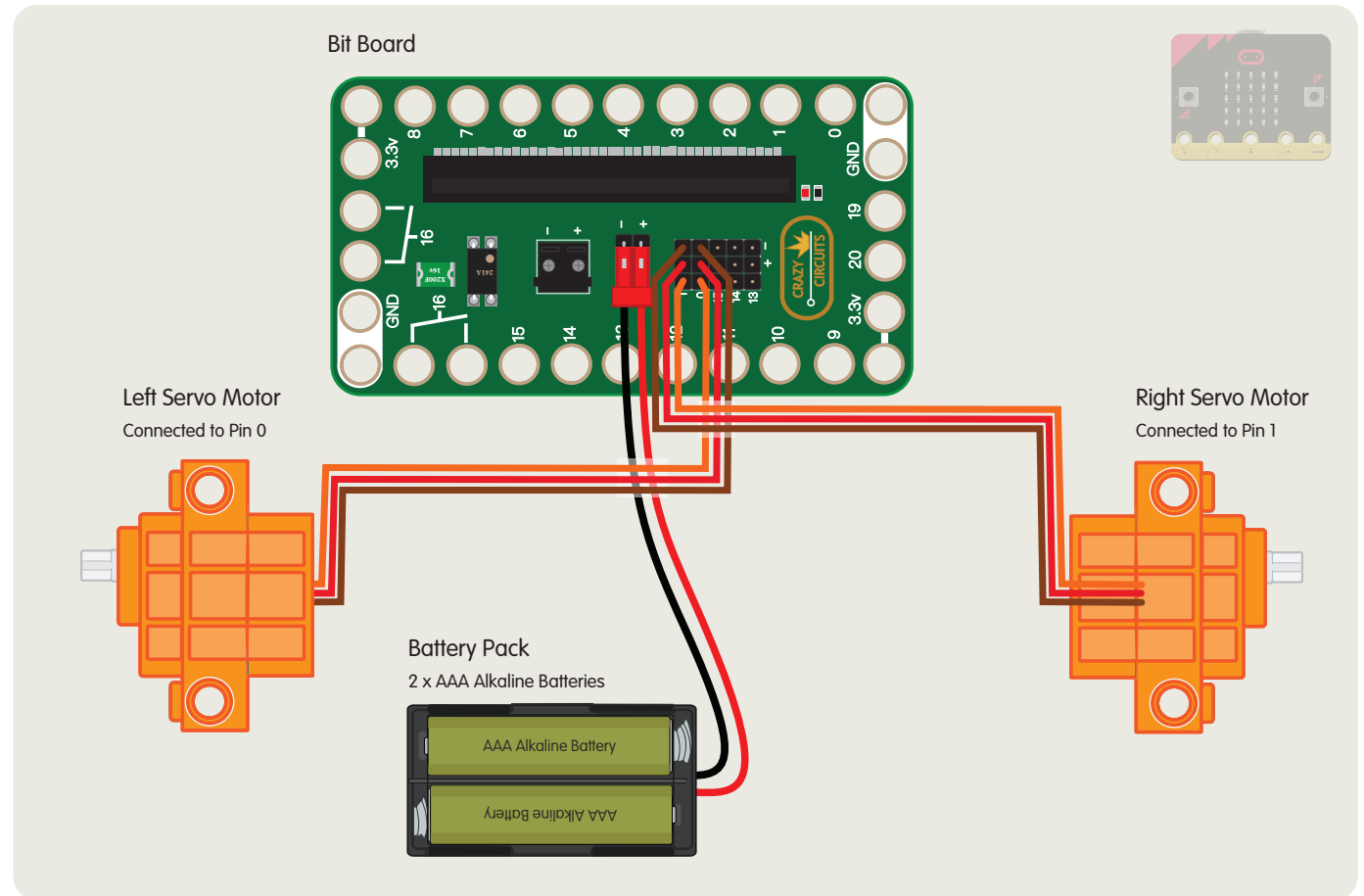
- 1 x Crazy Circuits Bit Board
- 1 x micro:bit
- 1 x WALL-E LEGO Kit
- 2 x LEGO Compatible 360 Degree Servo
- 4 x LEGO Bracket 1 x 2 - 2 x 2
- 2 x LEGO Axle Connector
- 2 x LEGO Axle 5 with End Stop
- 2 x LEGO Technic Bush 1/2
- 2 x LEGO Brick 2 x 2

* How it Works:

The Crazy Circuits Bit Board holds the micro:bit and controls the two 360 degree continuous rotation servos. When the servos turn the same rotational direction WALL-E will move forward or backwards. If the two servos turn opposite directions from each other WALL-E will turn left or right.

Our battery pack provides power to the micro:bit and to the two servos. Two AAA batteries will output 3 volts, which is the appropriate and safe voltage to power the micro:bit. (Overpowering the micro:bit can damage the board.) Rechargeable batteries tend to be lower voltage, about 1.2 each, so with two batteries the voltage is a bit low, closer to 2.4 volts, which is not quite enough to supply reliable power.

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Connecting the Servos:

The servo motors have a connector with three wires which are orange, red, and brown.

The orange wire is the "signal" wire and must be connected to the pin with the number next to it.

The red wire is the + (positive) wire and must be connected to the pin row with a + sign.

The brown wire is - (negative) and must be connected to the pin row with a - sign.