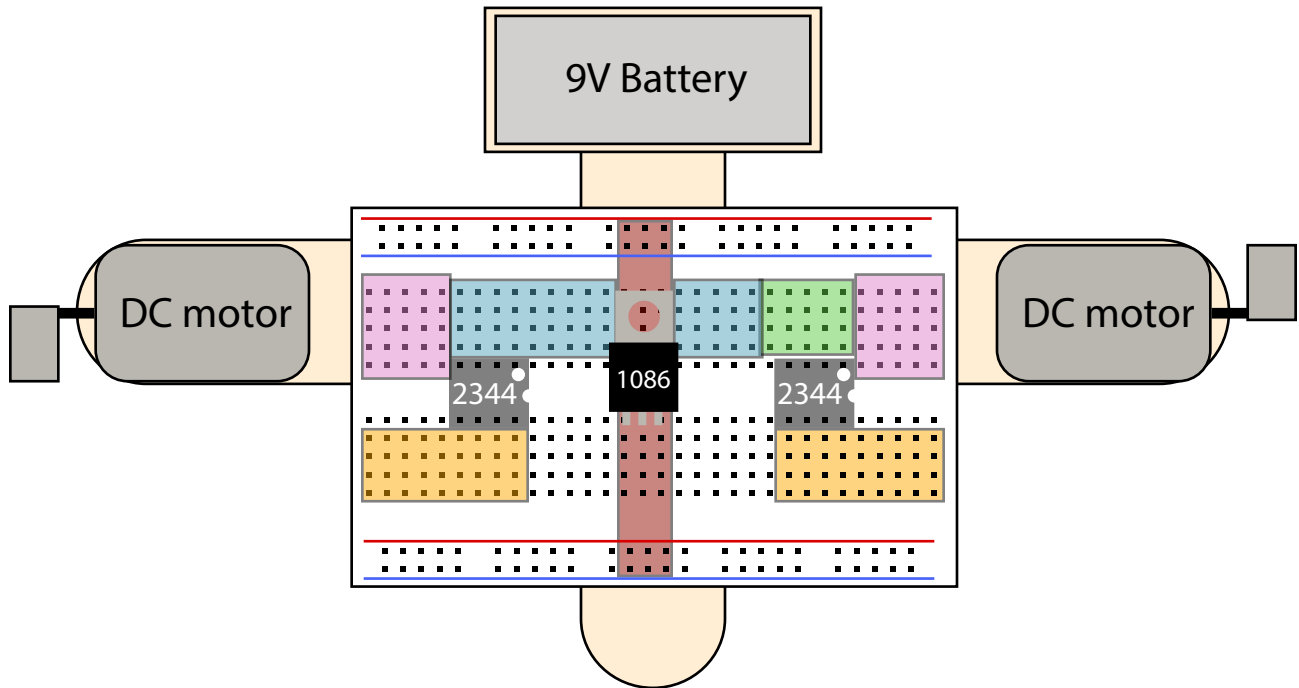


EE40LX Robot Layout



(Module 1) Voltage Regulator

- (1) LM1086
- (2) 10 μ F caps

(Modules 2 & 3) Photocells + comparators

- (6) 2.7 k Ω resistors
- (2) photocells
- (1) OPA2344/equivalent (2 amps)
- (2) indicator LEDs - optional
- (2) 300 Ω current-limiting resistors

(Module 3) Buzzer driver

- (1) OPA2344/equivalent (1/2 amps)
- (1) speaker

(Modules 3 & 4) Microphone amplifier

- (1) electret mic
- (3) 10 k Ω resistors
- (1) 2.7 k Ω resistor
- (1) 100 k Ω resistor
- (1) 1 μ F cap
- (1) OPA2344/equivalent (1/2 amps)

(Modules 5 & 6) Motor drivers

- (2) DC motors
- (2) diodes
- (2) steel nuts
- (2) PN2222 NPN transistors
- (2) 1 k Ω resistors

MSP430 GPIO

Inputs

- photocell, left
- photocell, right
- microphone

Outputs

- motor, left
- motor, right
- speaker
- power block rail