# EE40LX Robot Layout
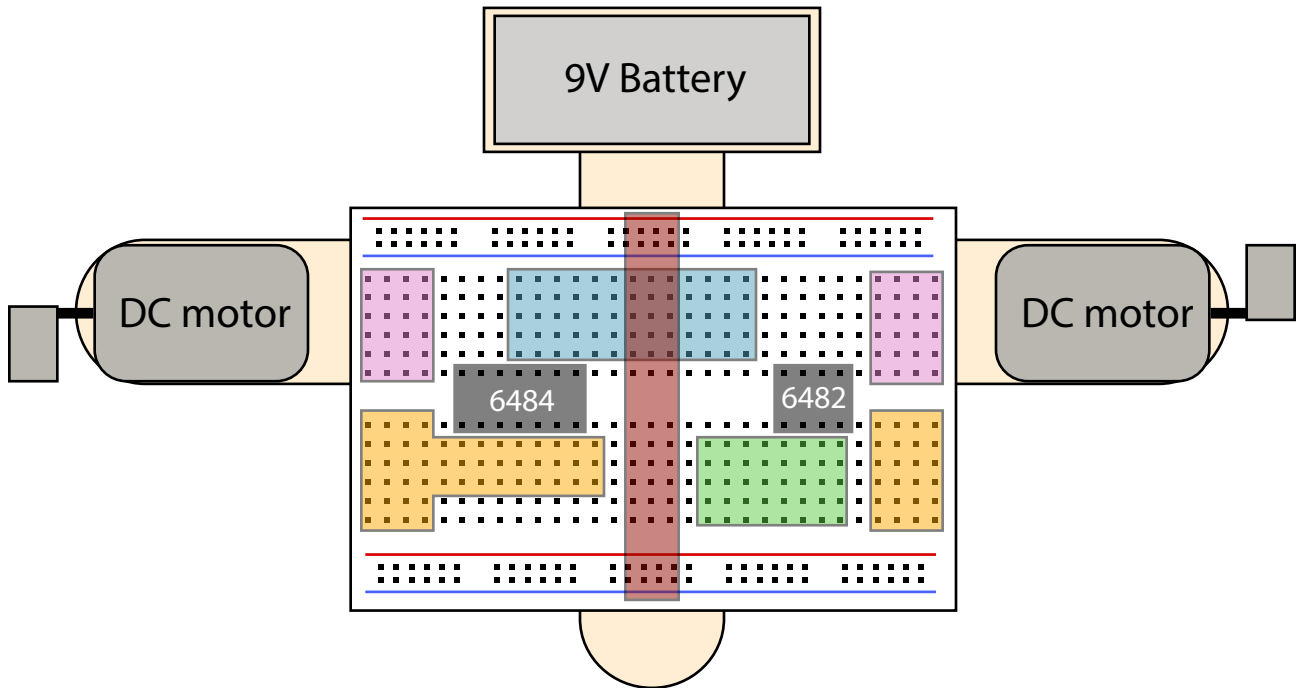


**(Module 1) Voltage Regulator**
    (1) LM1086
    (2) 10 µF caps
**(Modules 2 & 3) Photocells + comparators**
    (6) 2.7 kΩ resistors
    (2) photocells
    (1) LMC6484 (2/4 amps)
    (2) indicator LEDs - optional
    (2) 300Ω current-limiting resistors
**(Module 3) Buzzer driver**
    (1) LMC6482 (1/2 amps)
    (1) speaker

**(Modules 3 & 4) Microphone amplifier**
    (1) electret mic
    (1) 10 kΩ resistor
    (2) 20 kΩ resistors
    (1) 2.7 kΩ resistor
    (1) 100 kΩ resistor
    (1) 1µF cap
    (1) LMC6484 (1/4 amps)
**(Modules 5 & 6) Motor drivers**
    (2) DC motors
    (2) diodes
    (2) steel nuts
    (2) BC547 NPN transistors
    (2) 1 kΩ resistors

# MSP430 GPIO

| Inputs | Outputs |
| --- | --- |
| photocell, left | motor, left |
| photocell, right | motor, right |
| microphone | speaker |