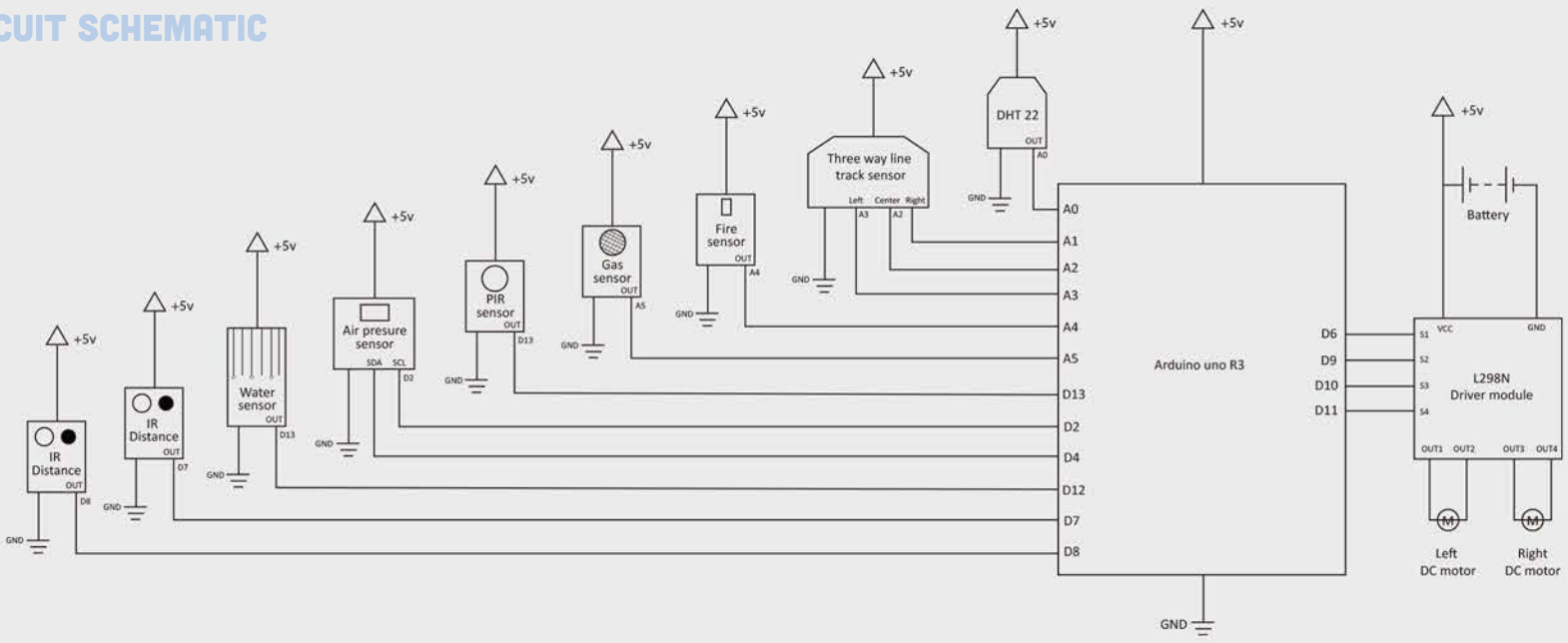
INTERACTIVE APPLIANCE

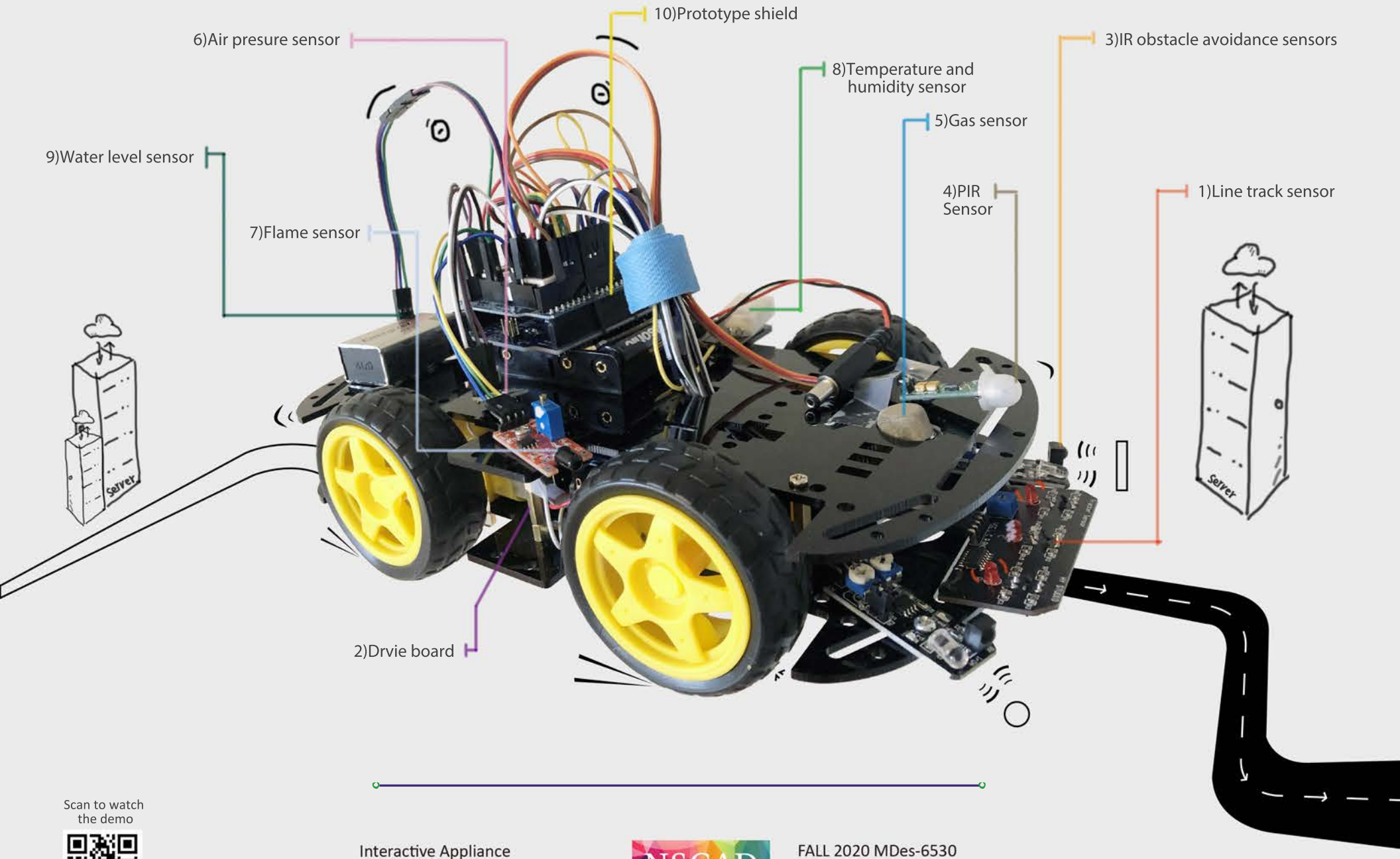
The main components of this Mobile *environmental monitoring* and *security* device for IDC are:
First, there are 1)three line track sensors in the front of the device to detect the black line on the ground, and then adjust its position by rotating the left and right motors connected to the rear wheel. Let its patrol along the black line in the server room.

The 2)motor drive board is in the center of the lower acrylic board. There are five active actions: turn left and right, forward and backward, and stop when encountering a T-shaped black line. 3)Two infrared obstacle avoidance sensors and line-track sensors cooperate to prevent possible collisions.4)PIR Motion Sensor and 5)gas sensor are arranged at the front of the upper acrylic board, and there are 6)air pressure, 7)flame, 8)temperature and humidity sensors in the middle. At rear is 9)water level sensor. Ideally, these environmental sensing devices can transmit data to the user's device via Bluetooth and WIFI. To remotely understand the real-time status of the IDC server room.

It has a 10)prototype shield and mini breadboard to expand and plan the circuit. Four AA batteries supply power to Arduino, and 9V batteries supply power to the motor drive board. The two are connected to the ground.

CIRCUIT SCHEMATIC





Scan to watch the demo

Interactive Appliance
Mobile environmental monitoring and security device for IDC

NSCAD UNIVERSITY

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