HW components at SC 6.61 lab you can use for the project

Boards:

- Arduino Uno + breadboard
- Arduino Nano + breadboard

Shields and tools:

- Multi-function shield
- LCD keypad shield
- 24MHz 8-channel logic analyzer

Displays and opto:

- HD44780-based LCD
- Nokia 5110 LCD display
- TM1637 4-digit 7-segment display (several colours)
- LED (several colours)
- RGB LED
- IR LED 940nm
- IR receiver
- GL5539 photoresistor

Input devices:

- push button
- analog joystick PS2
- rotary encoder
- 4x4 matrix keypad

Wireless:

- ESP8266 Wi-Fi module
- HM-10 Bluetooth
- GPS NEO-6M GYNEO6MV2

You can use the laboratory at a time when you have registered the DE2 course.
Laboratoř můžete využívat v době vaší registrované výuky.
It is not allowed to take anything out of the laboratory.
Není dovoleno nic z laboratoře odnášet.
After your work, always clean your workplace and shut down the computer.
Po skončení práce uveďte pracoviště do původního stavu a vypněte počítač.

Sensors and modules:

HC-SR04 ultrasonic sensor
HW201 infrared obstacle avoidance sensor module
I2C EEPROM 24C32 and RTC DS1307 module
I2C BME280 humidity, temperature, and barometric sensor
I2C DHT12 humidity and temperature sensor
1-wire DHT12 humidity and temperature sensor
I2C gyroscope and 3-axis accelerometer
ACS712 current sensor 5A
ACS712 current sensor 20A
I2C logic converter bi-directional modul 5V <--> 3.3 V
capacitive soil moisture sensor v1.2
relay modules (1, 2, or 4 relays)

Other:

resistors (several values)
SG-90 micro servo

Special:

Slotcar for autonomous driving (including sensors, ATmega328, LEDs, speed control, …) https://github.com/tomas-fryza/arduino-slotcar
4-wheel chassis with 4 DC motors, 2 optical barriers, and 2 H-bridge drivers L298N