Session 5

Mobile Robot Platform

Mobile Robot Platform

What capability can robot platform provide?

Mobility

Sensory Perception

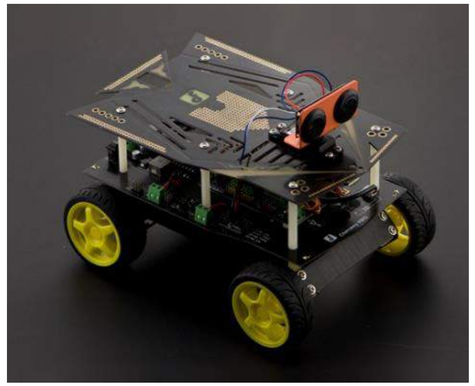
Advanced Computer Vision

SLAM

Speech Recognition & Synthesis

Computation

Robot Platform



Cherokey

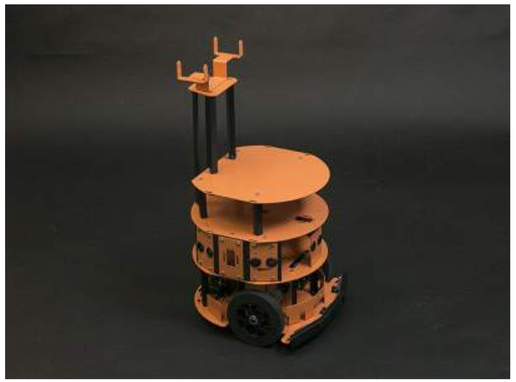
特点:4轮越野版,自带电机驱动和电源管理,只需要主控和传感器就可以玩

可以无需romeo，用户可以使用自己的主控系统

Devastator

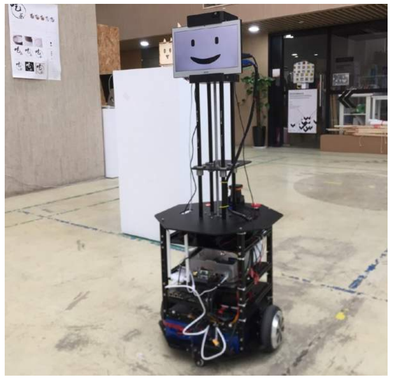
特点:履带驱动版本

推荐使用Romeo BLE



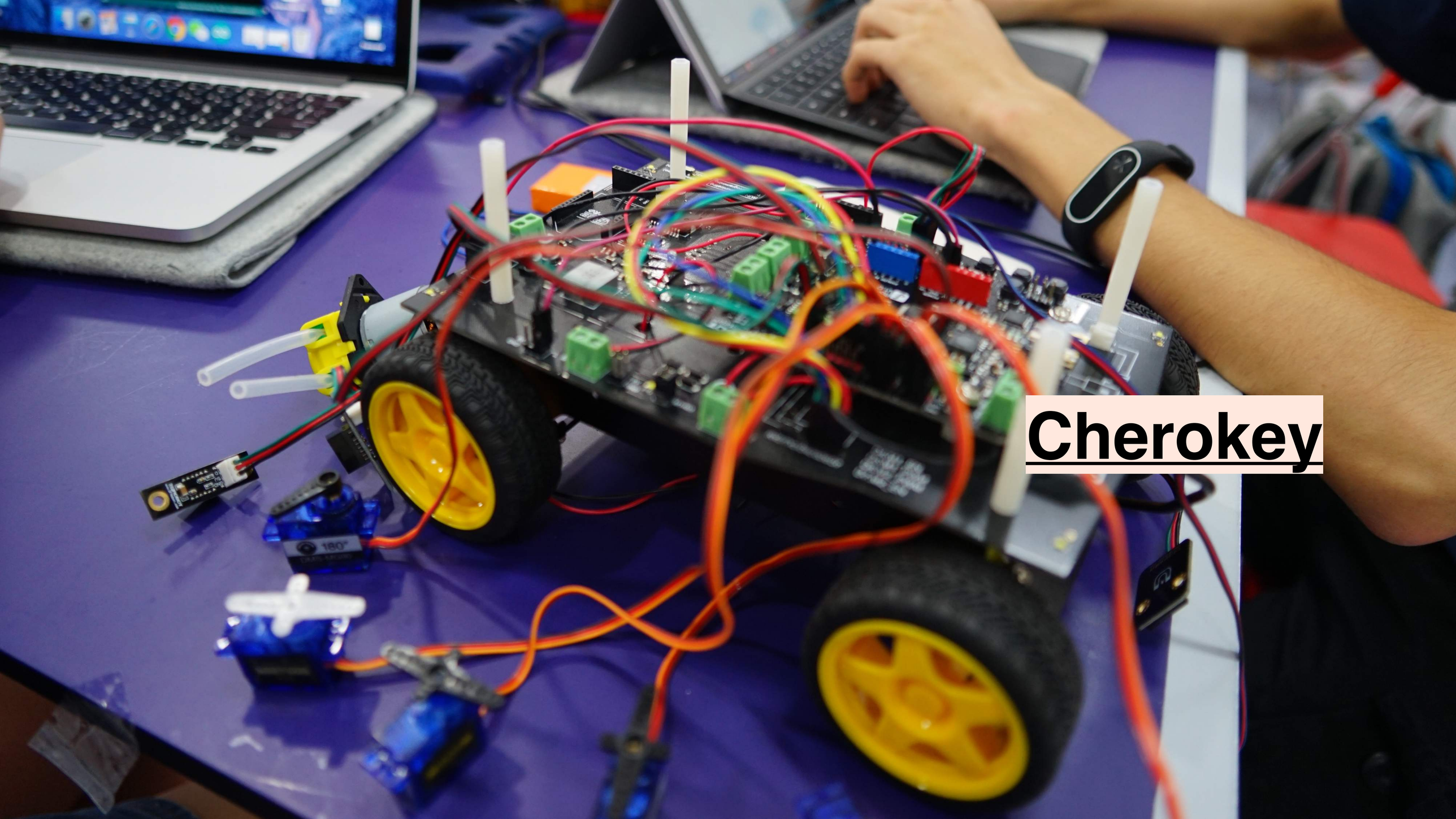
HCR

特点:针对专业用户， 支持高达20多种传感器， 能支持Kinect



Intel HERO

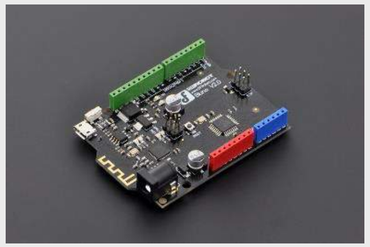
特点:高性能计算，提供多种接口，ROS界面、SLAM、Intel RealSense 计算机视觉能力、可视化编程接口


Cherokey

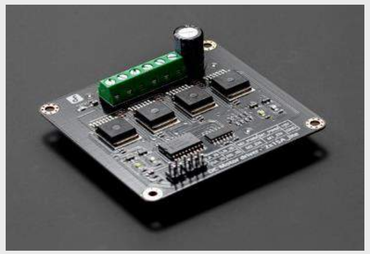
Robot Platform

Cherokey

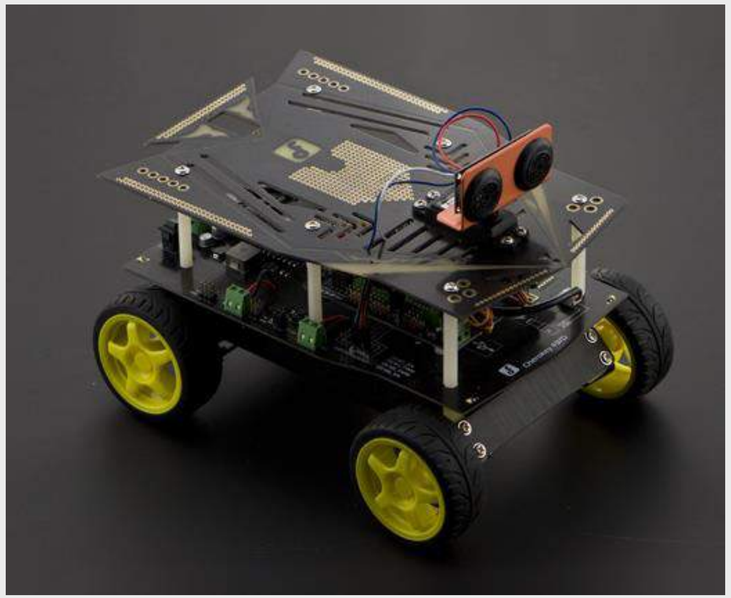
225mm*174mm*112mm
840g



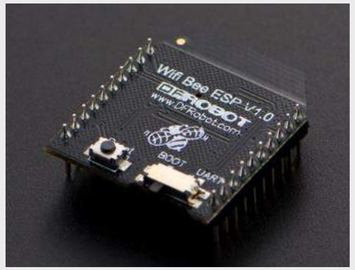
Micro-controller



Motor Drive



Structure and Motor



Communication

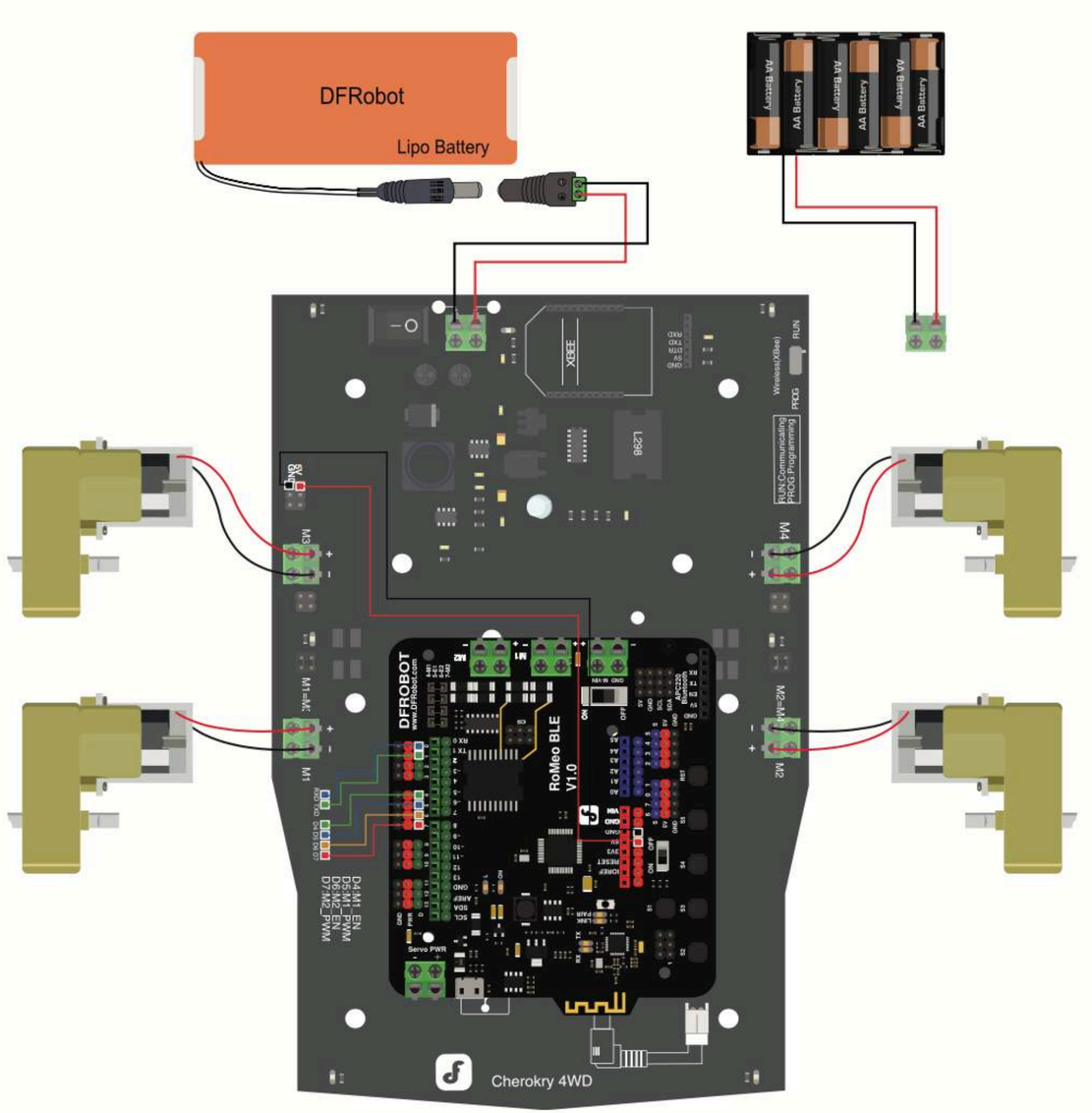
Sensor

Programming

Power

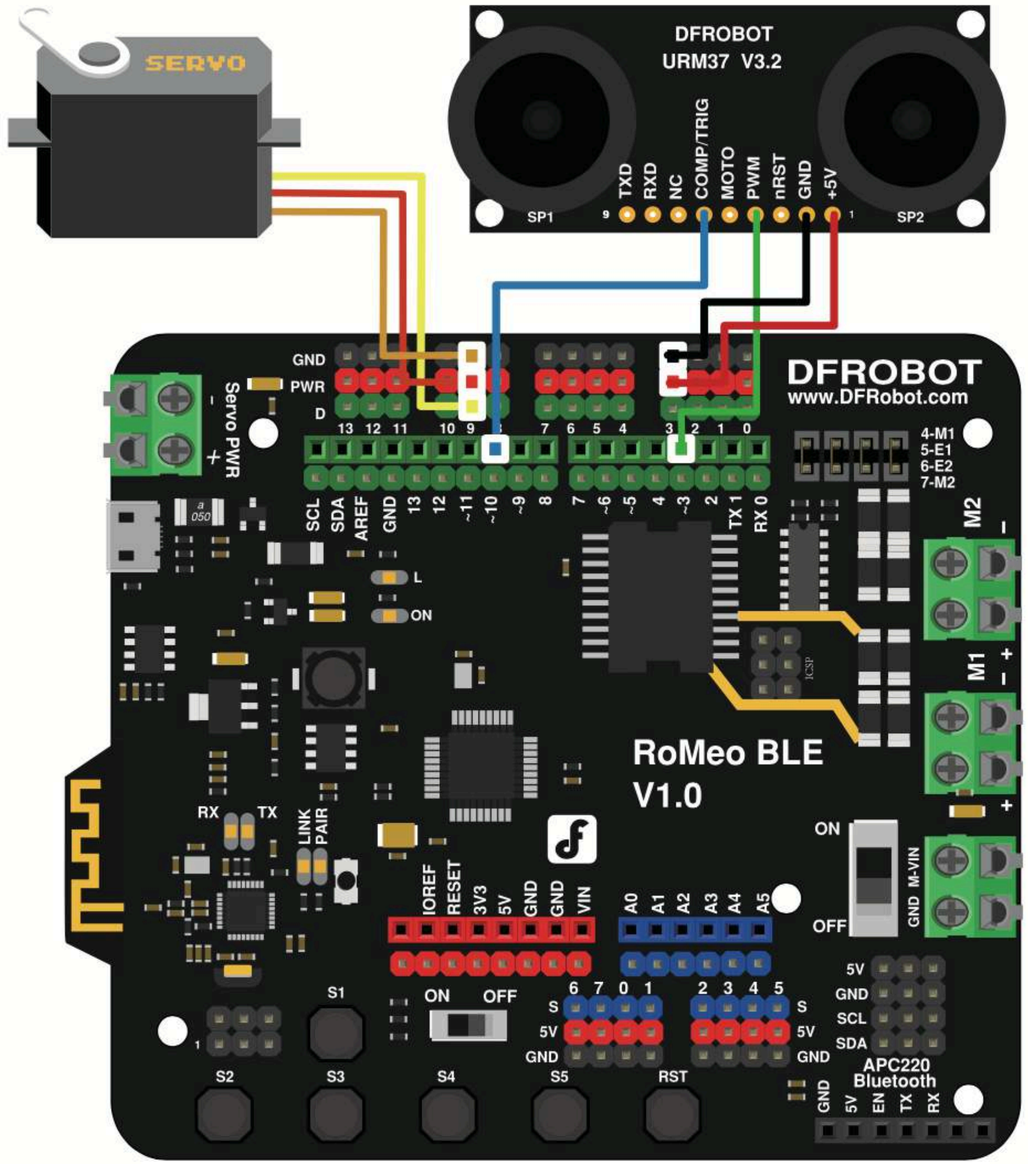
Robot Platform

Cherokey



Robot Platform

Cherokey



Robot Platform

Cherokey

Programmable Mobility

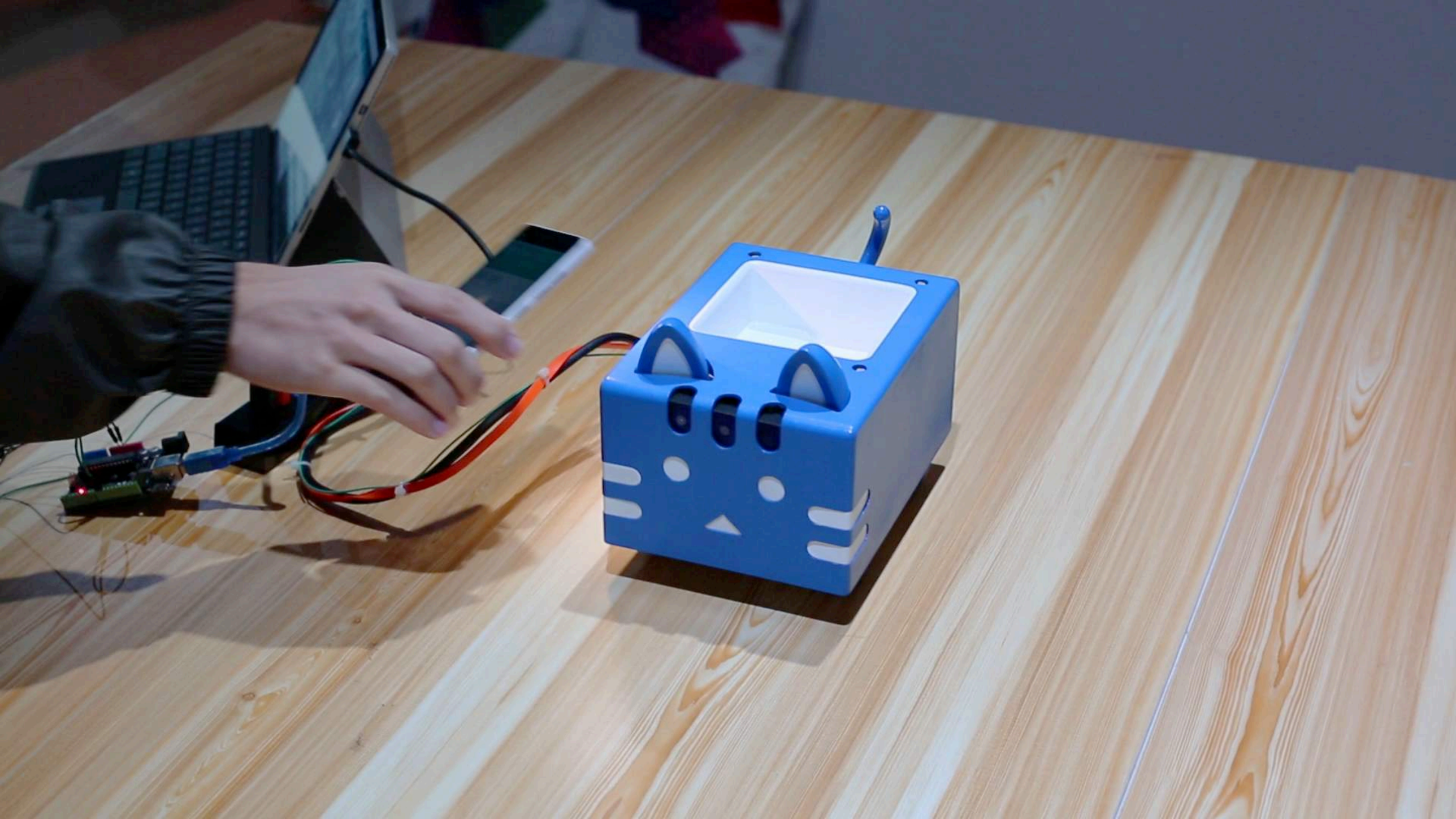
User has the ability to control the speed and direction of the four motors built in Cherokey, which can accordingly come into different mobility patterns.

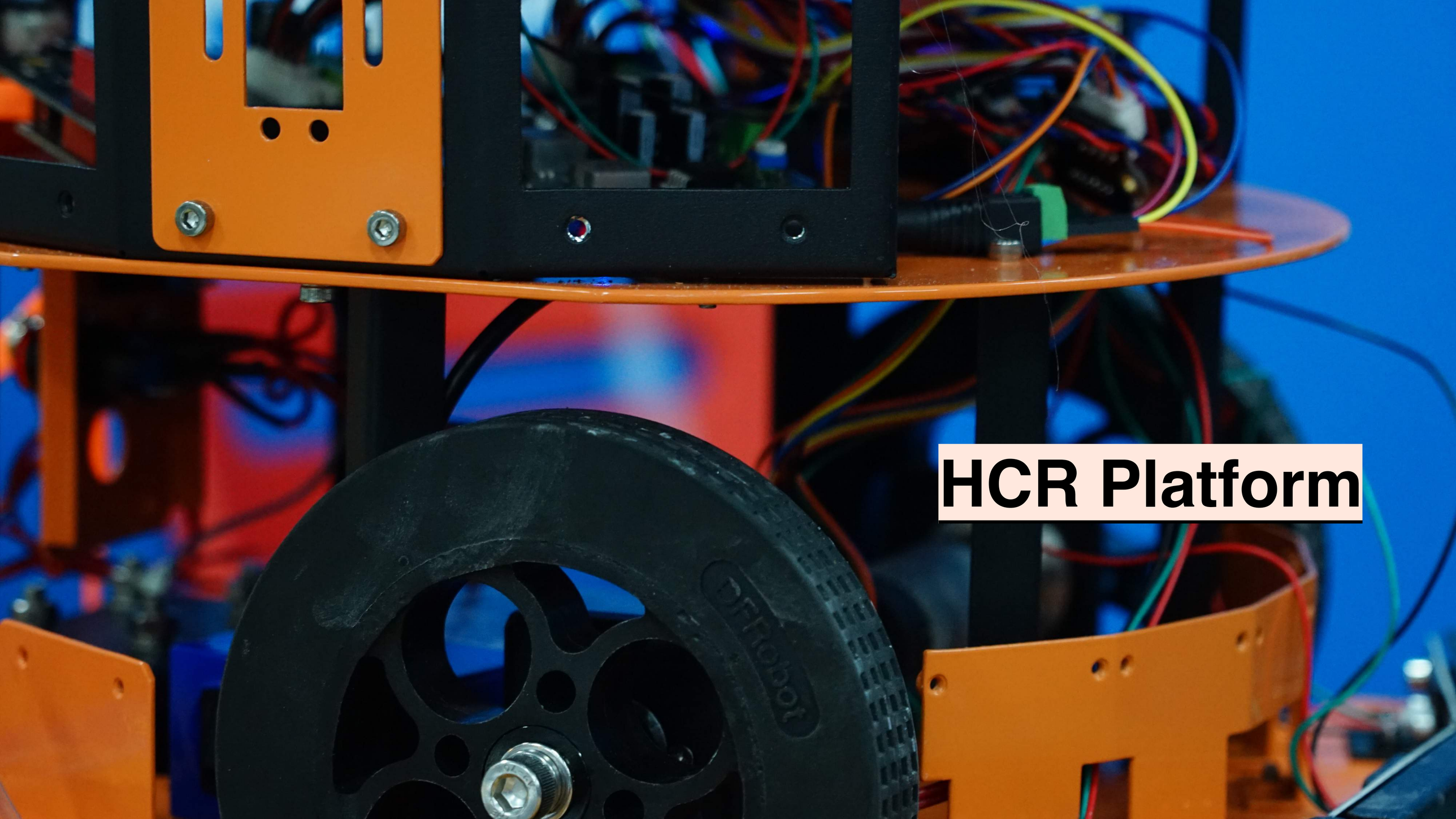
move forward

move backward

stop

turn to one direction

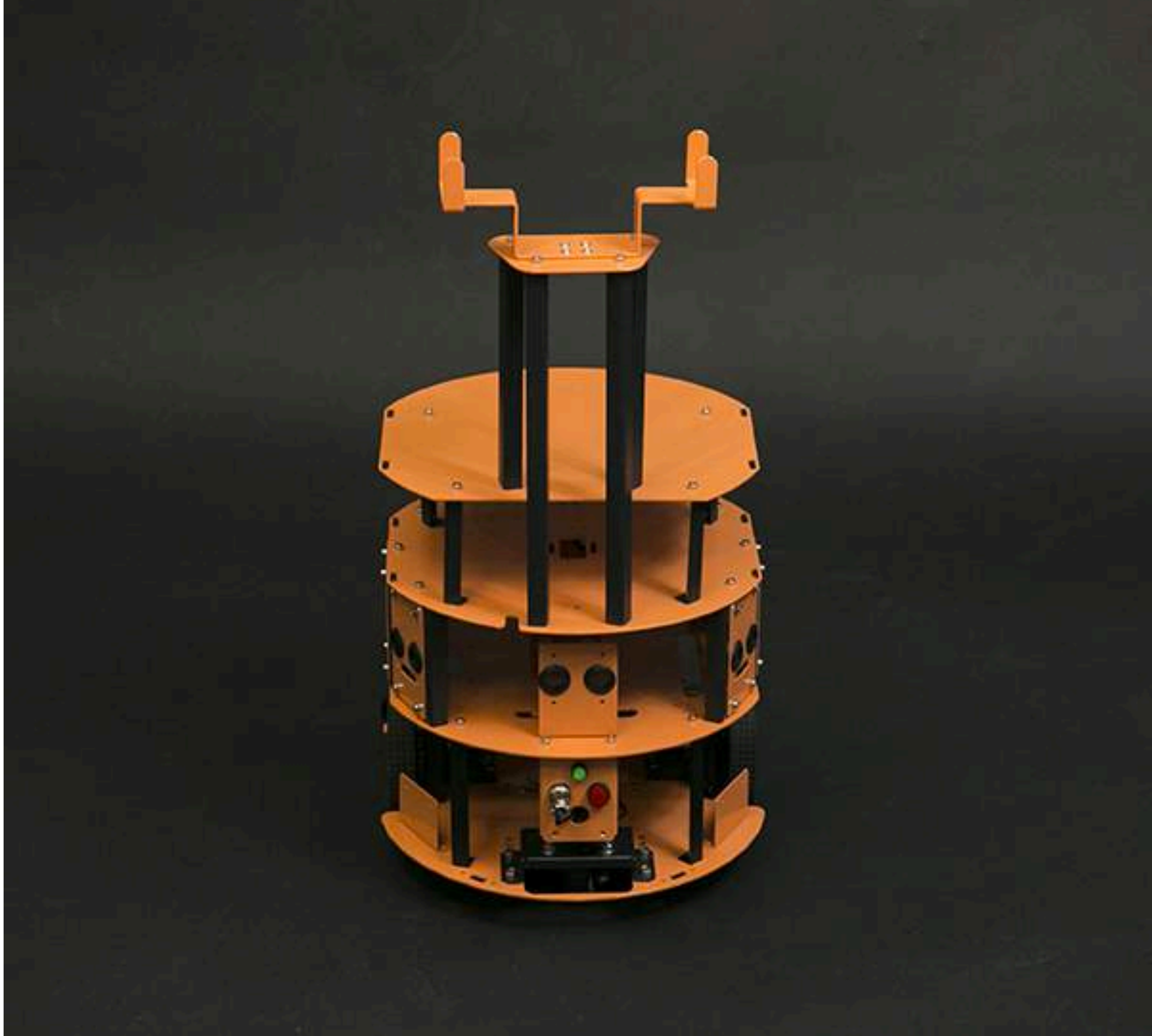


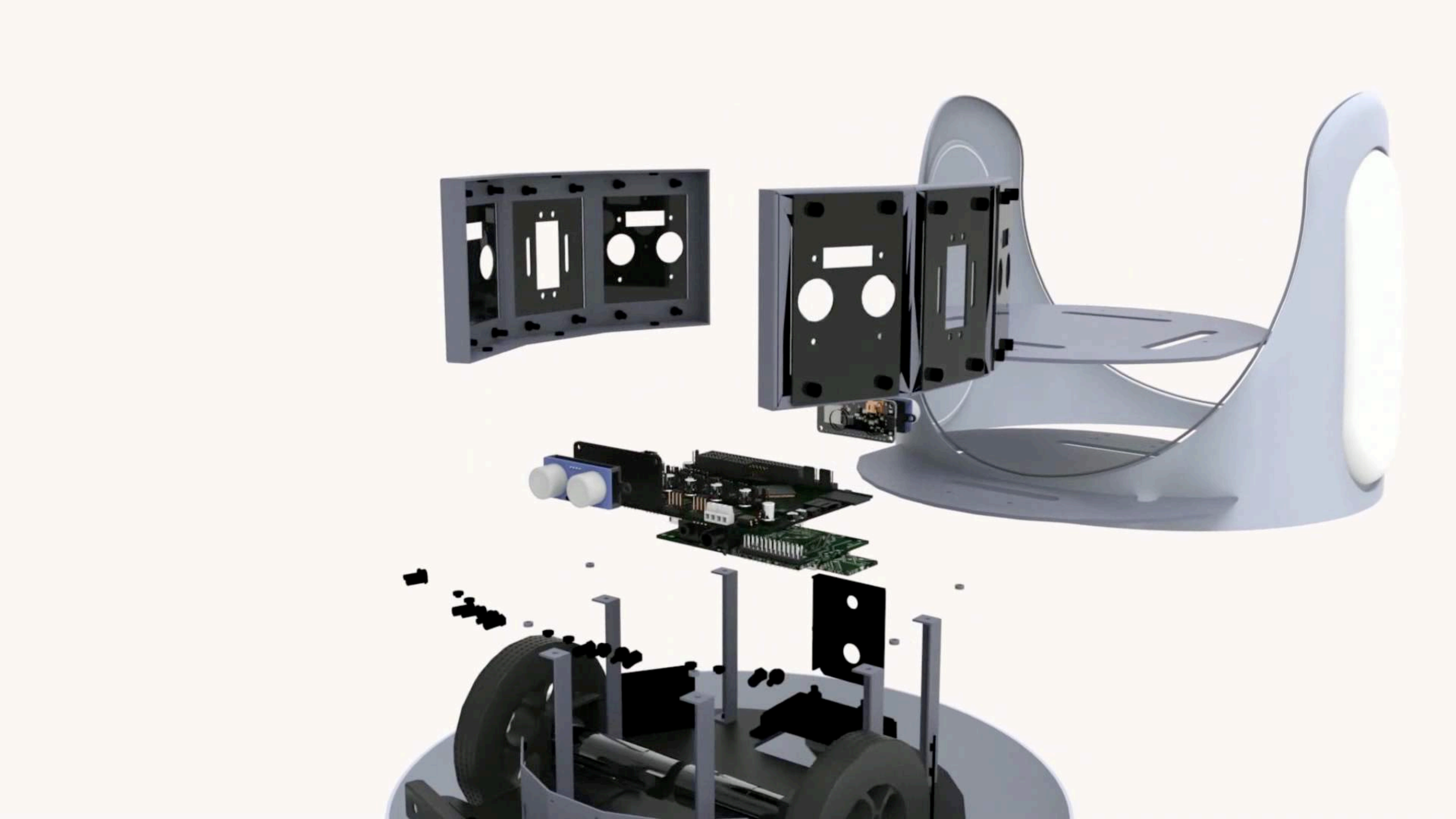

HCR Platform

Robot Platform

HCR

33 x 33 x 65 cm
three layers
two wheels
multi-sensors built in





Robot Platform

HCR

Specification

Sensor

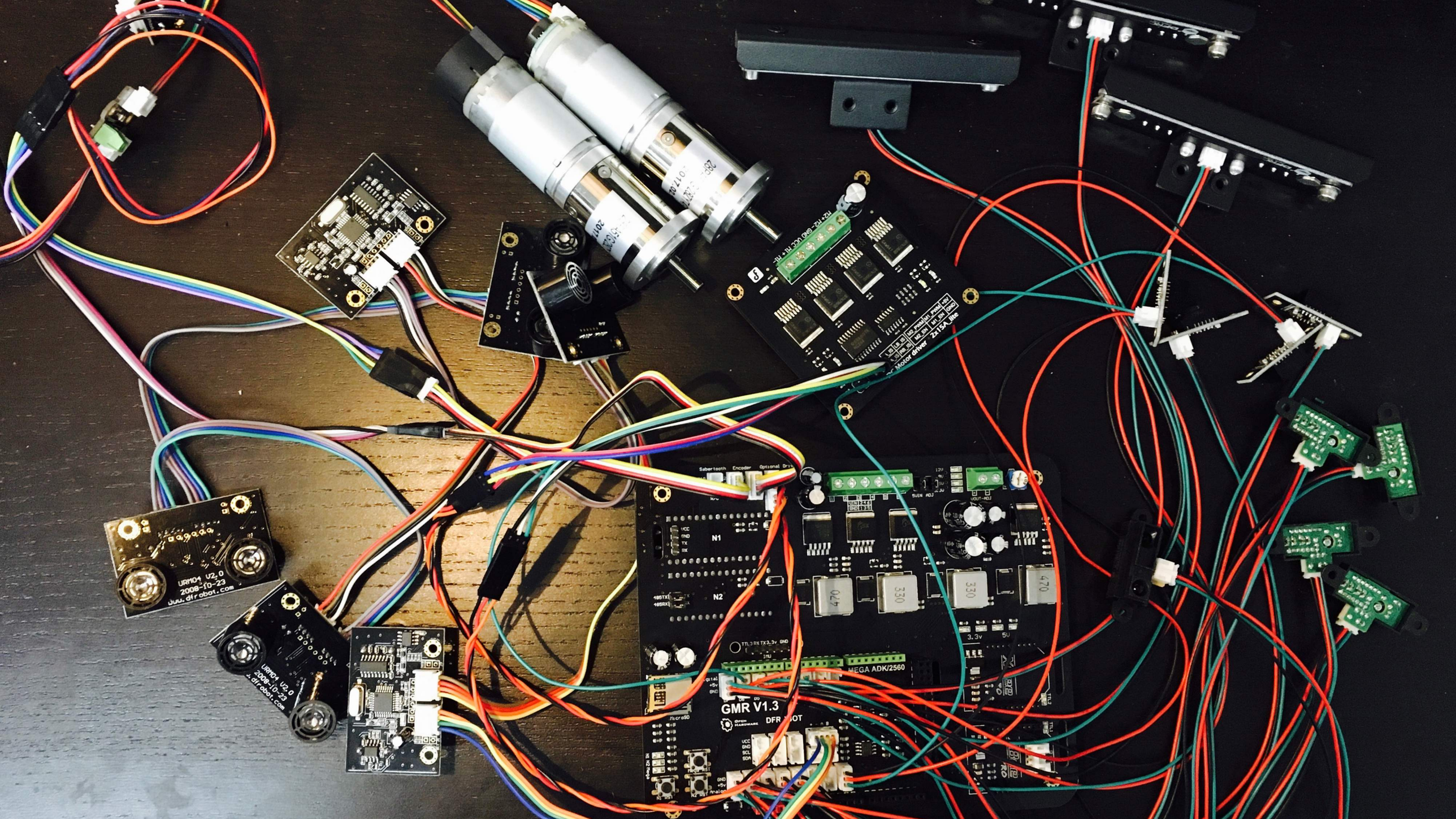
URM04 可级联超声波传感器
红外距离传感器
红外防跌落传感器
碰撞传感器

Drive

DFRduino Nano 3.0
15A双路电机驱动

Microcontroller

Mega2560 Arduino主控
GMR 机器人扩展板


URM04 V2.0
2008-10-23
www.dfrobot.com
GMR V1.3
MEGA ADK/2560
Motor driver 2x15A_Lite

Robot Platform

HCR

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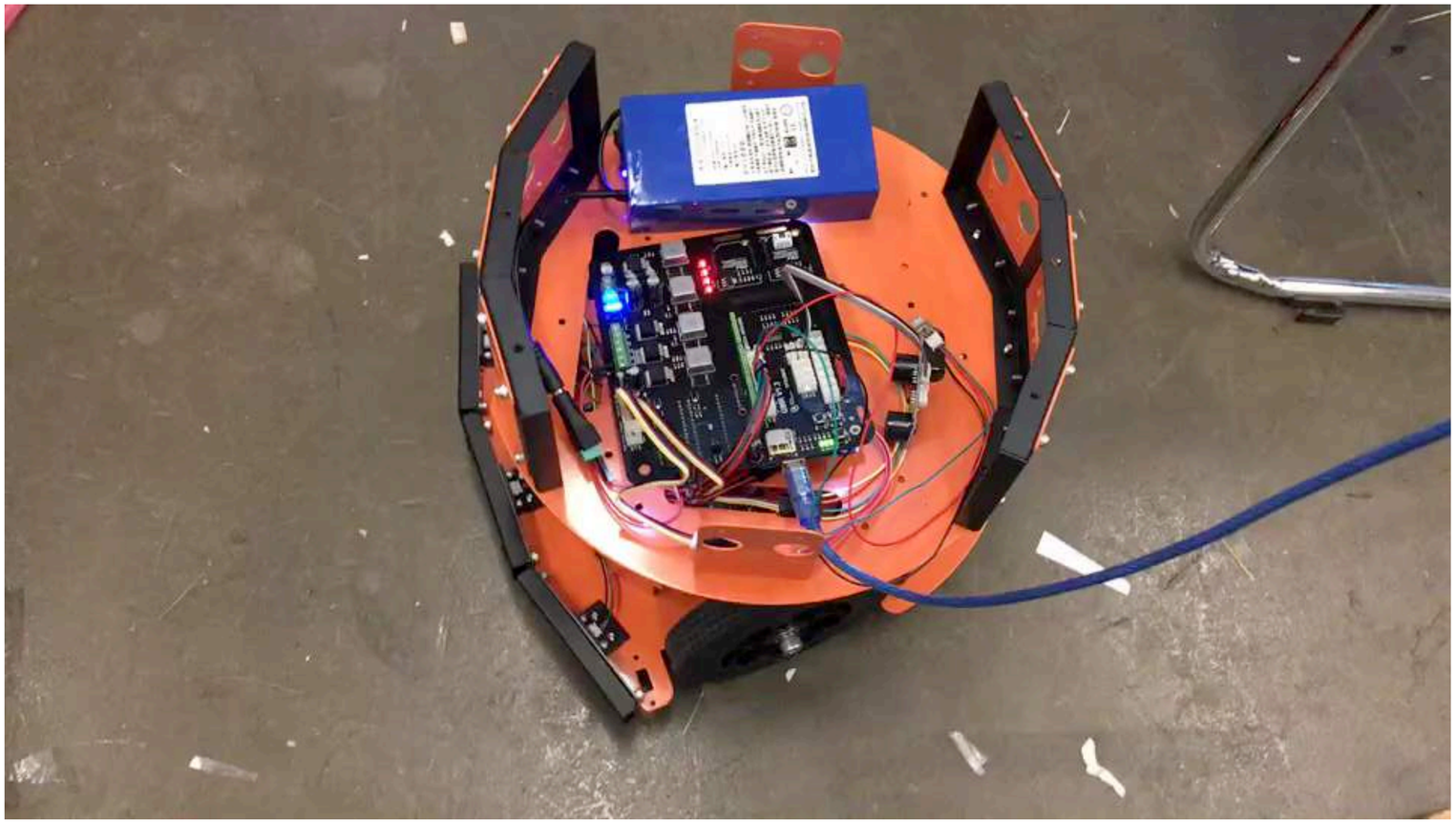
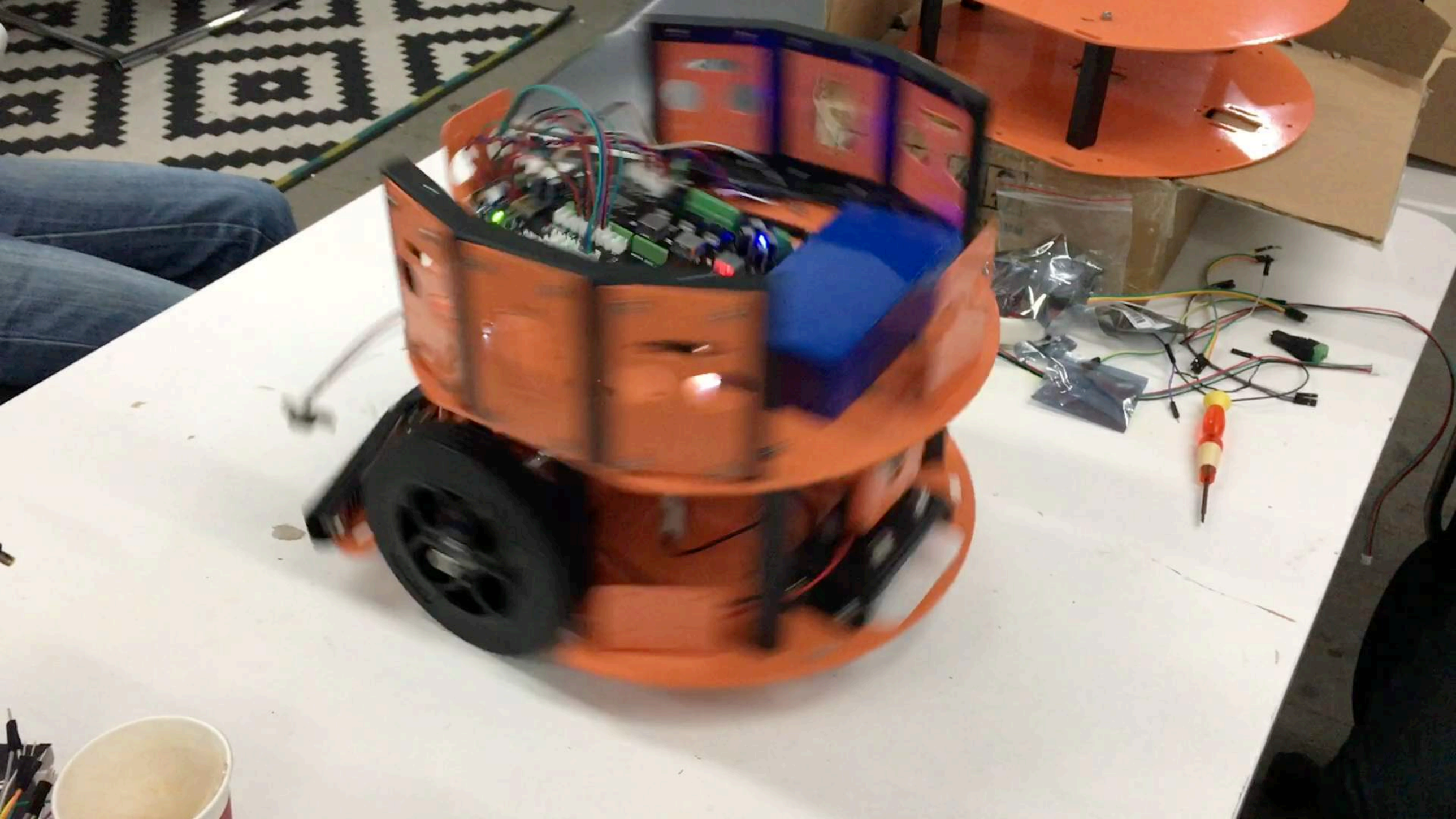
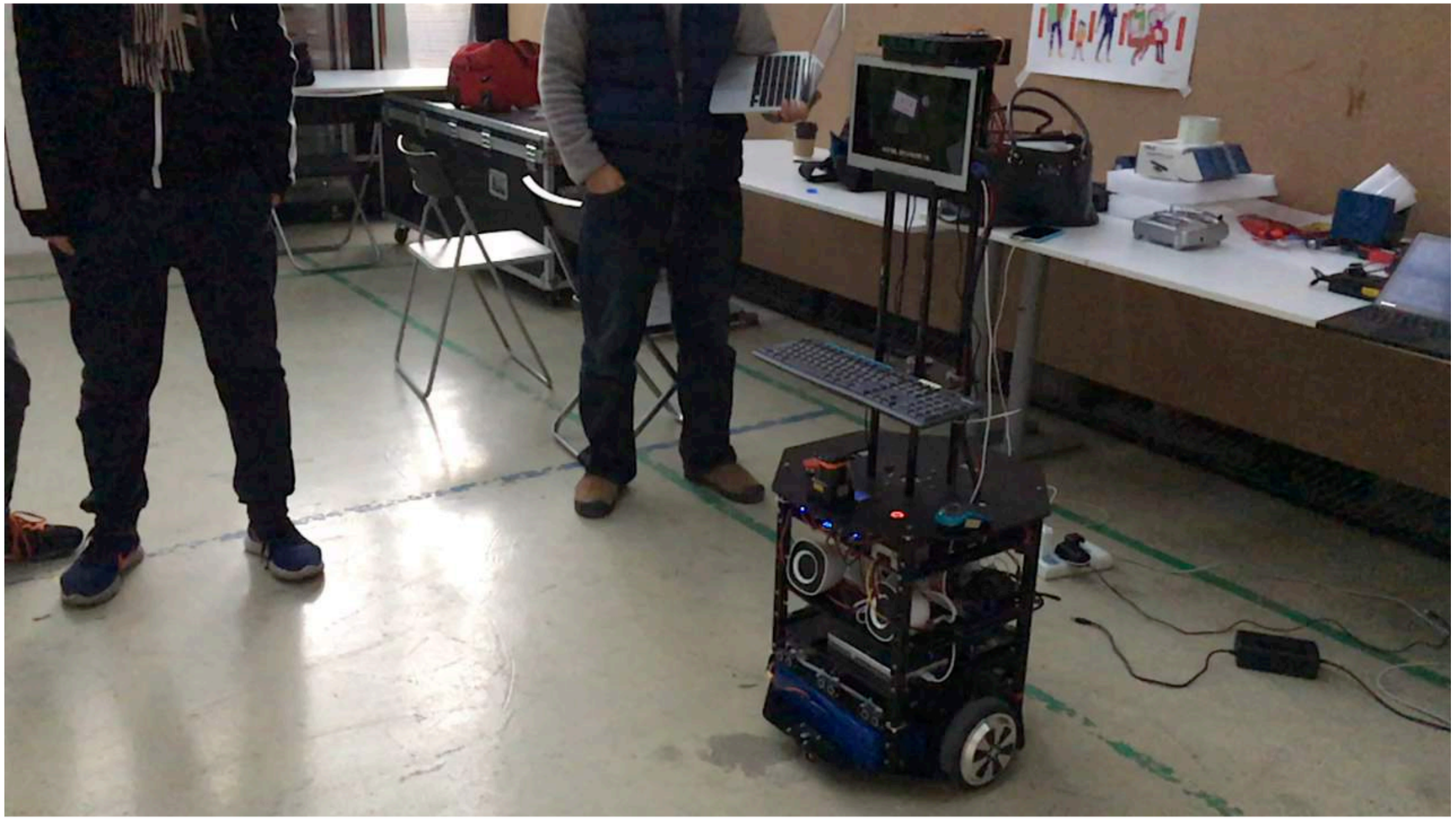




Robot Platform

HERO