

# Modular System

Build your own car. Choose between different chassis, boards and sensors.

## The building blocks – limitless creativity

  
1) Pick a chassis

### DFRobot ROB0165

Two Brushless DC motors,  
Servo, Camera Mounting

or

### DFRobot ROB0157

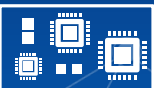
Two Brushed motors, Servo,  
Camera Mounting

or

### **Your own choice\***

Bring your own car, 3D printed  
or different supplier

+

  
2) Pick a platform

### RDDRONE-FMUK66

Running on opensource  
software PX4

or

### Mikroe NXP Cup Mainboard V20


with K64 Microcontroller

or

### **Your own choice\***

Pick your own board from NXP  
(e.g. iMX or FRDM)

+

  
3) Pick a camera  
sensor

### Pixy2 Cam

intelligent camera with NXP  
chip on board

or

### Parallax 28317

Linescan Camera Module 128-  
pixel resolution

or

### **Your own choice\***

Pick your own camera

+

## The entry level starter kit

Combo: Chassis + board

### DFRobot ROB0157-A

Two Brushed motors, Servo,  
Camera Mounting

including

### Mikroe NXP Cup Mainboard V20

with K64 Microcontroller

### Pixy2 Cam

intelligent camera with chip on  
board

\*Read the [rules](#) for minimum specifications if you build your own kit.

All cars and boards can be purchased via Mouser Electronics

Landzo Model C and Alamak from previous seasons are allowed to the challenge!

PUBLIC | 1

**NXP**

In collaboration with

electro  
{maker}

**M** MOUSER  
ELECTRONICS

# Modular System - Tested NXP recommendations

  
1) Pick a chassis

## Pioneer Kit for early adopters

View [Shopping cart](#) example

### DFRobot ROB0165

Two Brushless DC motors,  
Servo, Camera Mounting

### The advanced solution

All-new NXP CUP exclusive  
chassis. For the first time  
ever with brushless motors.

€103

+

  
2) Pick a platform

### RDDRONE-FMUK66

Running on opensource  
software PX4

All-new Vehicle management  
unit. Be among the first using  
PX4 for rovers!

€27\*

+

  
3) Pick a camera  
sensor

### Pixy2 Cam

intelligent camera with chip on  
board

Pixy2 Cam has its own NXP  
MCU with line tracking and  
object detection.

€69

Push the limits with all-new chassis, board  
and cam. Fully supported on [Gitbook](#).

€199

## Entry kit with the champions board

View pre-defined [Shopping Cart](#) example

Combo: Chassis + board

### DFRobot ROB0157-A

Two Brushed motors, Servo,  
Camera Mounting

including

### Mikroe NXP Cup Mainboard V20

with K64 Microcontroller

### The Champions solution

All-new reliable brushed  
motors kit.

Use the champions board! The  
board has been developed  
and used by multi-time winner  
HE-ARC Ingenierie, Switzerland.

This package includes chassis  
and board – so you don't have  
to buy them separately.

€83

+

### Pixy2 Cam

intelligent camera with chip on  
board

Pixy2 Cam has its own  
NXP MCU with line tracking  
and object detection.

€69

Known technology from previous seasons with  
promising Mikroe *board*. Fully supported on [Gitbook](#).

€152

\*Limited availability! Special discount for participants only. Special price only valid in  
combination with [DFRobot ROB0165](#) and [Pixy2 Cam](#). [See instructions](#).