EVA DESIGNING PROCESS

Cosmic Team

DESIGN WORKFLOW

Buy 4WD RC Car Smart	Design and print camera and Ultrasonic holder	DESIGN AND PRINT ARDUINO MEGA HOLDER	Design and print battery holder	Design and print driver and buck holder
The vehicle body has stands , a dc motor , and servo motor for steering that can be ordered from specialized places.	3D printer is used to print a holder for the camera and the front, left, and right ultrasonic sensors.	3D printer is used to print a holder for the Arduino microcontroller.	3D printer is used to print a holder for the battery	3D printer is used to print a Driver and the buck

BUY 4WD RC SMART CAR

The vehicle body has stands , a dc motor , and servo motor for steering , it can be ordered from specialized places.

It consists of three parts:

bottom base:

Its dimensions are 22 cm length and 9 cm width

Raspberry Pi stand:

Its dimensions are 7 cm length and 9 cm width, with nine stands of 3 cm long and 4 stands 4 cm long , and 24 tapered screws and 16 nuts

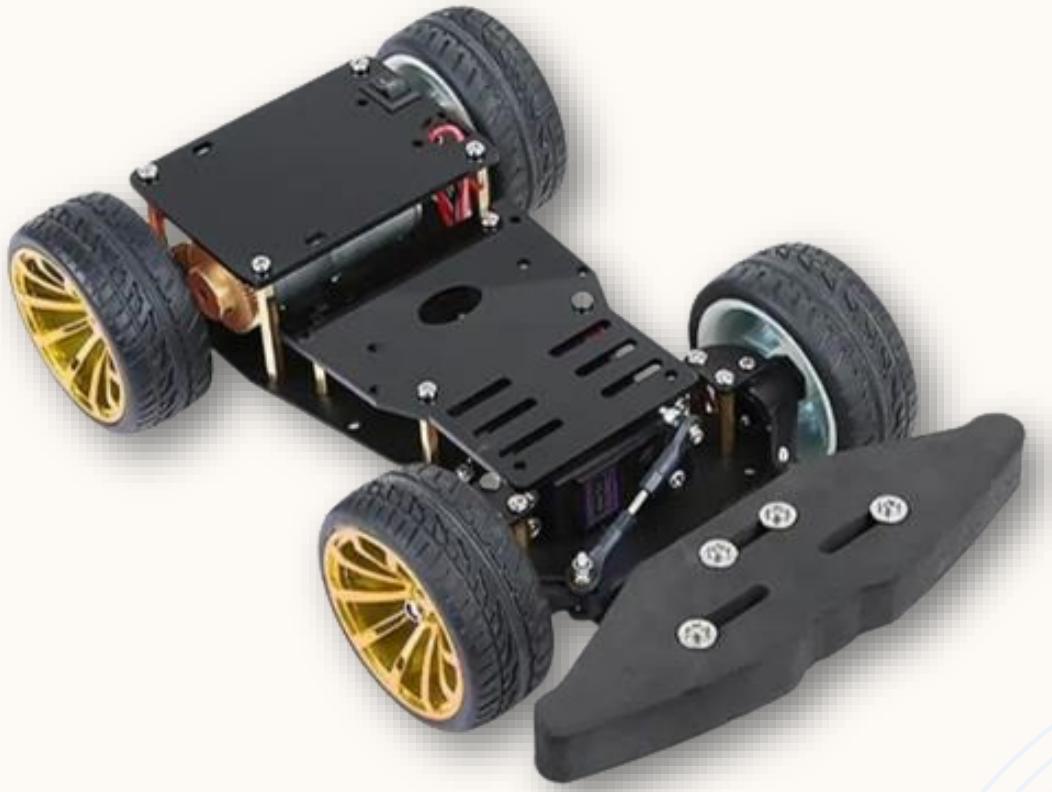
Battery holder base:

6 cm long, 8 cm width.

wheels:

We bought 4 rubber wheels with an inner diameter 3.5 cm and an outer diameter 6 cm.

This link help to assembled it.



DESIGN AND PRINT CAMERA AND ULTRASONIC HOLDER

3D printer is used to print a holder for the camera. and also, for front, left, and right ultrasonic sensors.

Camera and ultrasonic sensors holder:

It consists of three parts:

Ultrasonic sensor holder with a front bumper that protects the sensors from damage in case of a vehicle collision.

The holder is designed with dimensions:

7 cm long, 8.5 cm width and 3.5 cm high.

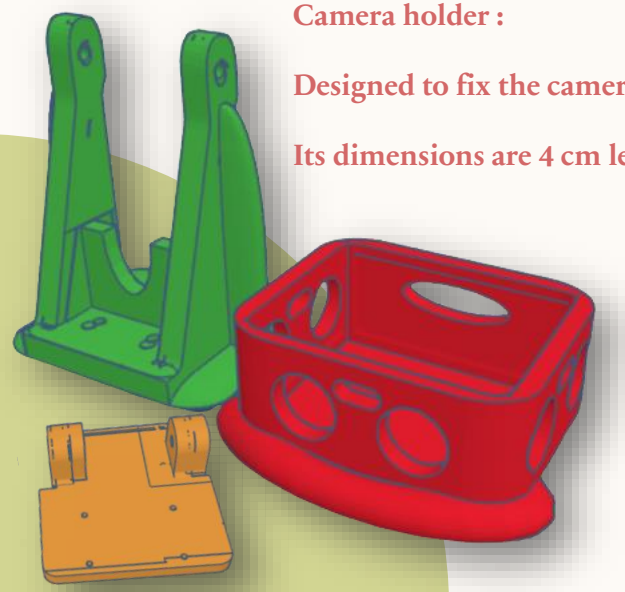
camera stand base

It is designed with dimensions of 9 cm height, 7 cm length, 6 cm width and 0.5 cm thickness

Camera holder :

Designed to fix the camera on it so that it is easy to move it in the appropriate direction.

Its dimensions are 4 cm length, 4 cm width and 1.5 cm height, also 1 cm thickness.



DESIGN AND PRINT

ARDUINO MEGA HOLDER

3D printer is used to print a holder for the Arduino microcontroller.

The Arduino holder is designed with dimensions,17 cm length , 8.5 cm height , width 6 cm, and with 1 cm thickness.

The Arduino stand consists of:

stand base:

4 cm length, 4 cm width, 1 cm thickness and 9 cm height.

Arduino mega base:

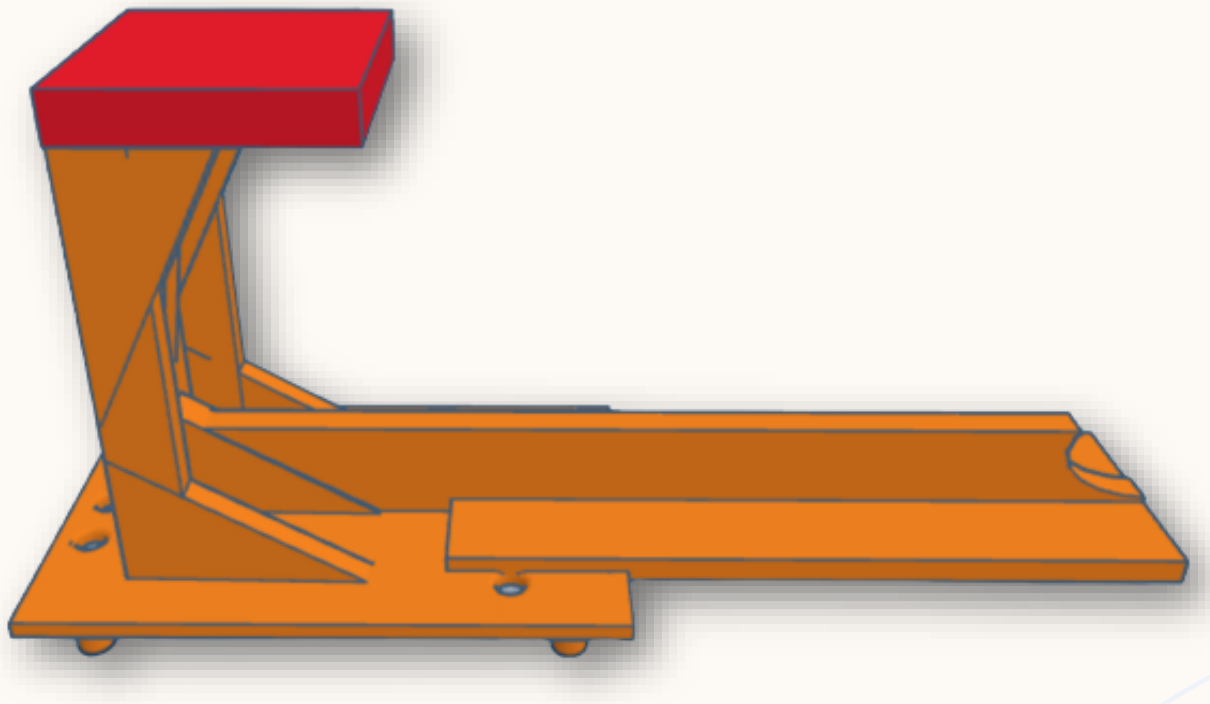
9 cm length, 6 cm width and 1 cm thickness.

dropbed:

17 cm length, 4 cm width, 3 cm height and 0.5 cm thickness.

The dropbed is designed with a length 17 cm, as it is a connector between the camera holder and the body of the vehicle to make the robot one unit and also to fix the vehicle and protect it from breaking.

With 7 screws , 2 nuts and 4 stands with 1 cm length.



DESIGN AND PRINT CAMERA AND ULTRASONIC HOLDER

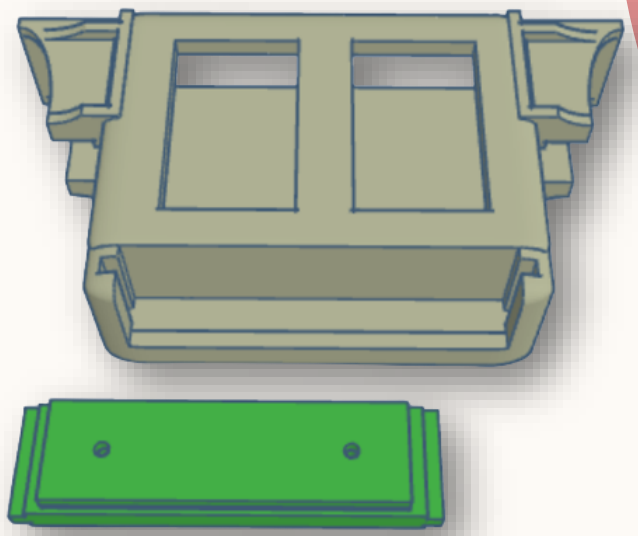
Battery holder:

We have added a drawer to the holder, a power port holder and a bush-button holder to facilitate the process of changing the battery, maintaining and operating the vehicle.

The drawer was designed with dimensions: 7.5 cm length, 2 cm width, and 2 cm thickness.

As for the dimensions of the power port and the push-button holder, the length 3 cm, the width 2 cm, and the diameter1 cm .

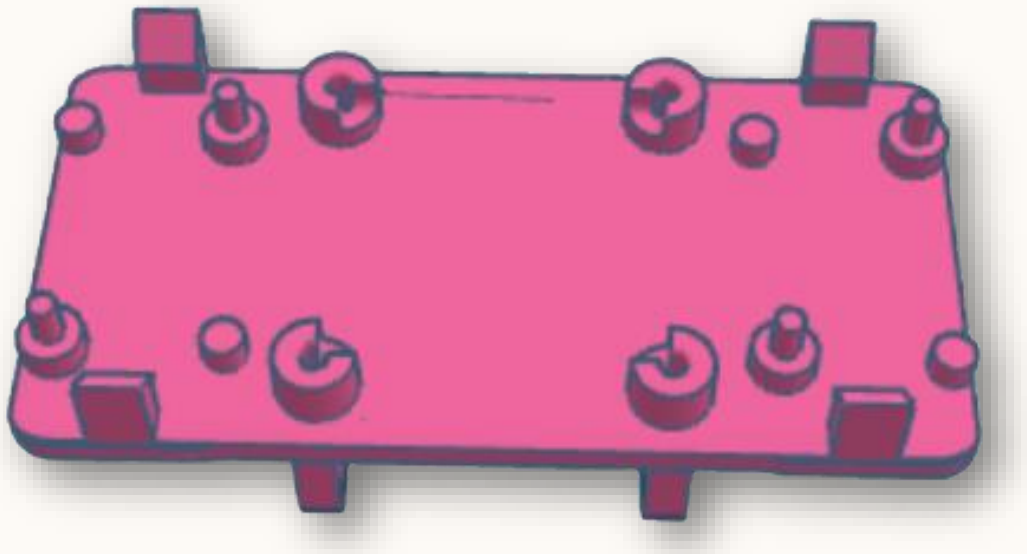
The dimensions of the battery holder are 12 cm long, 6.5 cm width, 3.5 cm high and 5.5 cm deep.



Design and print driver and buck holder

We designed the driver and buck holder with dimensions:

10 cm long, 5.5 cm width and 1.5 hight



THANK YOU

Designer :

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