Internship 2022

Progress report

Name: Allan Were Otieno

Tasks completed last week

- [#7] Identification of the parts used in making the robot car
- [#8] A drawing of the robot car chassis

- #7 Identification of the parts used in making the robot car

Key components

Arduino mega

The Arduino Mega 2560 is a microcontroller board based on the ATmega2560. It has 54 digital input/output pins (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports), a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button

DC motor

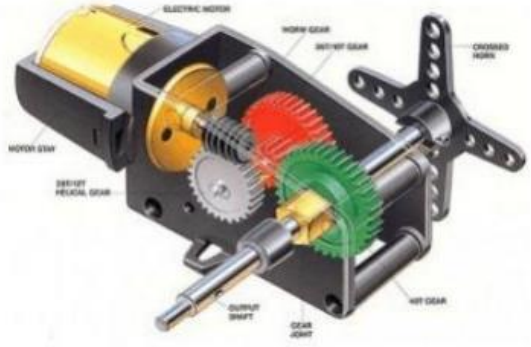
DC motors are rotary electrical machines that convert electrical energy into mechanical energy (Rotation).

Ultrasonic sensor

An ultrasonic sensor is an instrument that measures the distance to an object using ultrasonic sound waves. An ultrasonic sensor uses a transducer to send and receive ultrasonic pulses that relay back information about an object's proximity. High-frequency sound waves reflect from boundaries to produce distinct echo patterns

Servomotor

A servomotor is a rotary actuator or linear actuator that allows for precise control of angular or linear position, velocity and acceleration. It consists of a suitable motor coupled to a sensor for position feedback



Motor shield

The Arduino Motor Shield allows you to easily control motor direction and speed using an Arduino. By allowing you to simply address Arduino pins, it makes it very simple to incorporate a motor into your project. It also allows you to be able to power a motor with a separate power supply of up to 12v.

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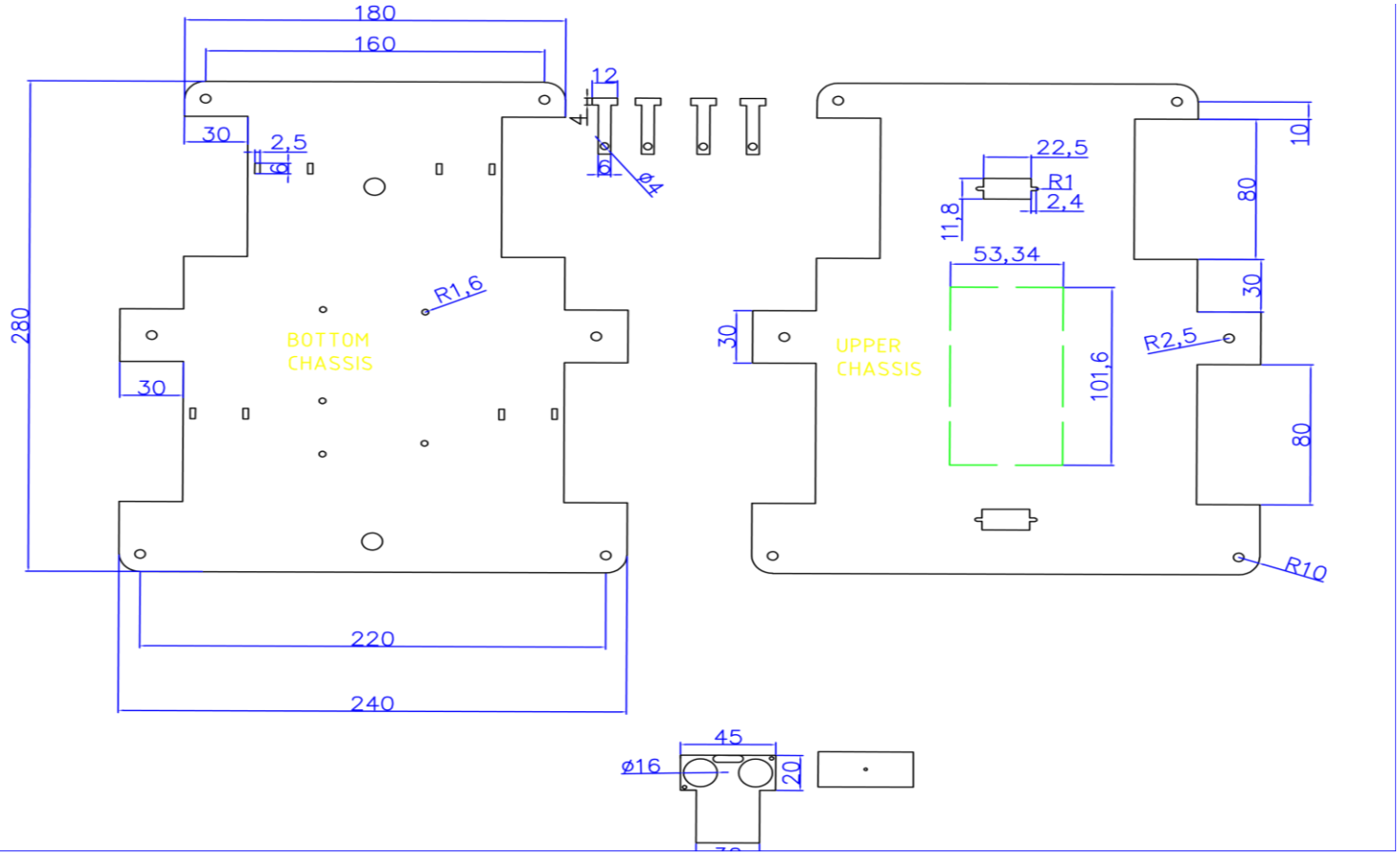
Buzzer

-It is basically a tiny speaker that you can connect directly to an Arduino. You can make it sound a tone at a frequency you set. The buzzer produces sound based on reverse of the piezoelectric effect. It is also known as piezo buzzer

Wheels

-helps the robot to navigate around the ground and to propel itself

[#8] A drawing of the robot car chassis


180
160
12
4
30
2,5
6
ø4
280
R1,6
BOTTOM
CHASSIS
30
220
240
22,5
R1
2,4
11,8
53,34
101,6
10
80
30
R2,5
80
30
UPPER
CHASSIS
R10
45
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20

Tasks in this week

- [#9] Circuit diagram of the robot car

The circuit diagram will be drawn using fritzing software.

The various parts libraries are being downloaded and being imported to the software

Timeline

Month	Intern week	Tasks
Jan		
	Week 1	• Identification of the parts • Chassis drawing of the model
	Week 2	• circuit diagram • Acquisition of the parts
	Week 3	• Developing a program to run the model • Launching the model
Feb	Week 4	

	Week 5	
	Week 6	
	Week 7	