

Harvesting

Robot Arm

Operation Manual and instructions

Harvesting Robot Arm



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General Information

The harvesting robot including two main part the arm & the car as showing in Figure 1

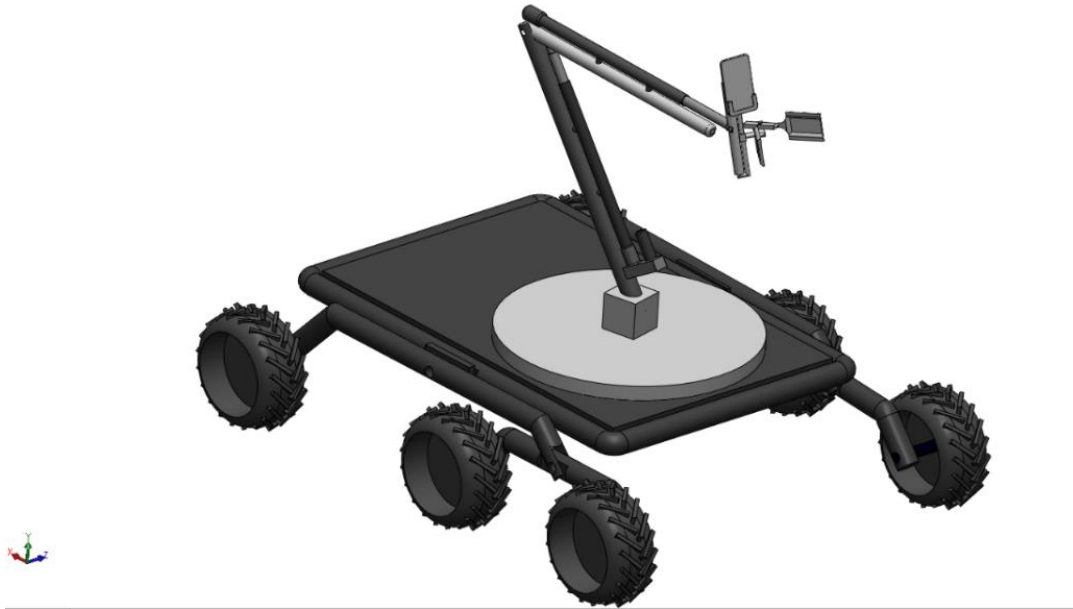


Figure 1



WARNING

Don't try to move the base of the arm manual the base of the arm only move by motor base because the type of gearbox of motor base is warm gearbox.



WARNING

Don't try to move the head of the arm manual, the head of the robot only moves by head motor because the type of gearbox of motor head is warm gearbox.



WARNING

Don't try to move the car of the robot manual the car of the robot only move by motor car because the type of gearbox of motor car is warm gearbox.



WARNING

The recommended voltage of the battery is 12V ,10A.

Operation - Controls and Instruments

Figure 2 showing the main part of arm

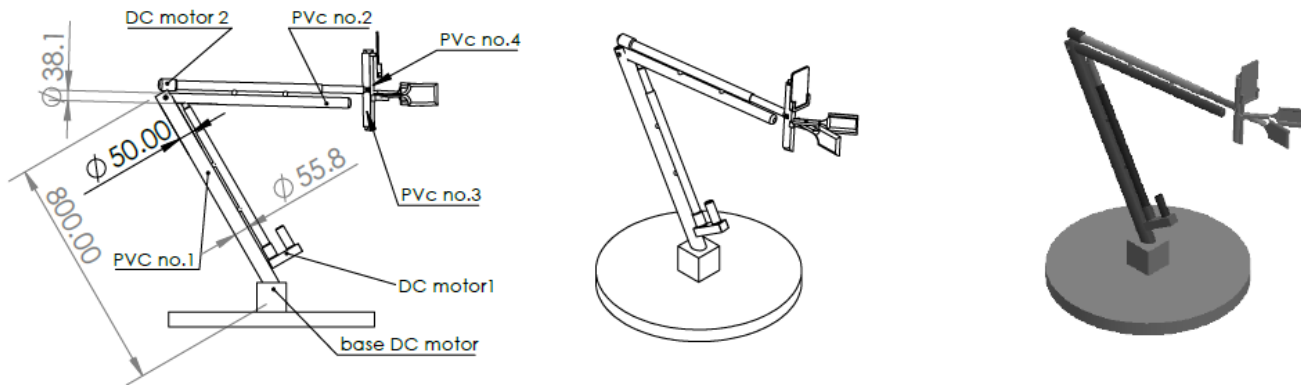


Figure 2

Make sure before starting the robot the bolt of the arm & bolt of the head are well tied, make sure to check the chain of motor base before starting, the three bolt is M8 so use spanner 13 or Hex Tubular 13 figure 3 showing the bolt position on the robot and figure 4 showing the spanner & hex tubular.



Figure 3

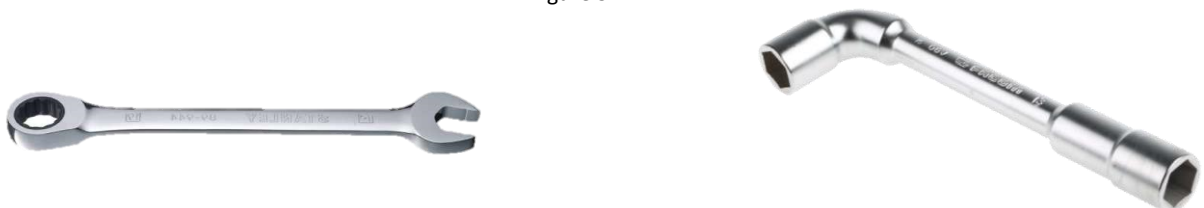


Figure 4

Before starting the robot make sure all the cable are connected to the port H1, H2, C1 and then the power cable to the battery figure 5 showing the cable and the port, then connect the power cable to the battery The recommended voltage is 12V some can motor work with 24V,36V every power cable is sine white label showing the maxim volt.

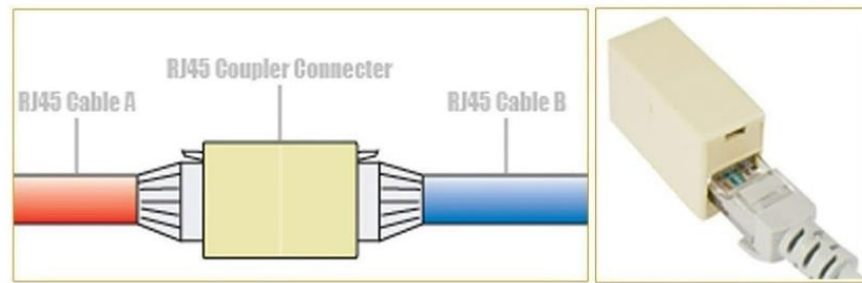


Figure 5

Field Operations

To starting the robot after connecting the power cable to battery open the mobile application and connect the Bluetooth then you can control any motor of the robot figure 6 showing the mobile application



Figure 6

After connecting the battery or the power source to the robot, start opening the mobile application when the application starts loading as shown in figure 7



Figure 7

When the application opens, it will have some options. The first icon 'Discover the App' allows the user to use the app and discover the details without connecting to the robot. The second icon 'Automatic control' allows the user to connect to the robot and start searching mode. The third icon 'manual control' allows the user to control the motor manually as shown in figure 8

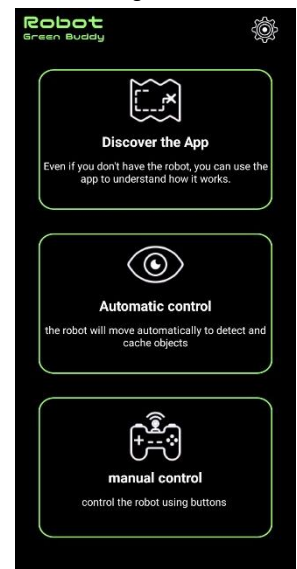


Figure 8

When the user chooses the 'Automatic control' option, the connecting page opens. This page allows the user to connect to the robot via the mobile application using Bluetooth as shown in figure 9

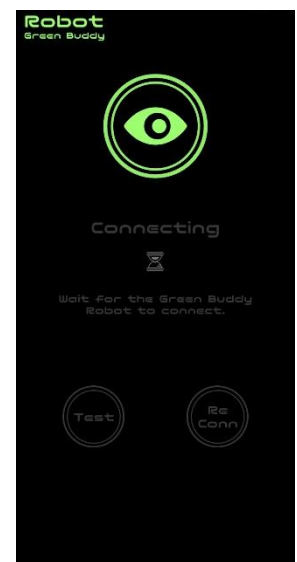


Figure 9

Before starting to search make sure motor is in right position motor base and head of the robot on position zero then put the phone in the phone holder on the robot head recommend using the front camera for better result of searching

Adjustments

After finishing make sure bolt and nuts are tight by every one and use spanner 13 or Hex Tubular 13 white bolt m8 & spanner 10 or Hex Tubular 10 white bolt m6



Figure 10

Refer to the report in case you need more information

