



Robotics following an accessible and complete way.

The Robot arm C-9895 CEBEKIT

To build an arm robot with hand, wrist, elbow, shoulder and back movements. A perfect example for initiation to robotics handling and the operating mode with an ideal difficulty and cost degree.



Although robotics is stigmatized by science fiction stereotypes, in the everyday life there are enormously real and various natures applications, some of them unperceived. The development of this technology knowledge is an investment at least recommended.

The approach of robotics requires knowledge in several matters: Mechanics, electronics, mathematics, and programming. For this reason, it is important that their respective introductions occur uniformly and with the same complexity degree. At this level, the importance of the first projects is basic, and even there is not many items, there exist kits which are perfectly adapted to these needs. It is the case of the C-9895 Robot Arm, with an excellent services relation

Assembly and components.

The C-9895 is supplied with a very detailed English instruction manual, with illustrations and text for each section, step by step, for an easy comprehension and evolution. The use of tools is also simplified. The manufacturer supply some elements of the Arms already assembled, such as the motor cable or electrical connections, thus avoiding the welding and limiting the number of necessary tools to a fine cruciform screwdriver, pliers and cut pincer. These last are not essential because the different plastic parts constituting the arm's fuselage and structure can be removed with the hand.

The remaining parts are gears for the Movement and the various screws of C-9895.

The description of the Assembly is clear because it is structured according to different operating step.

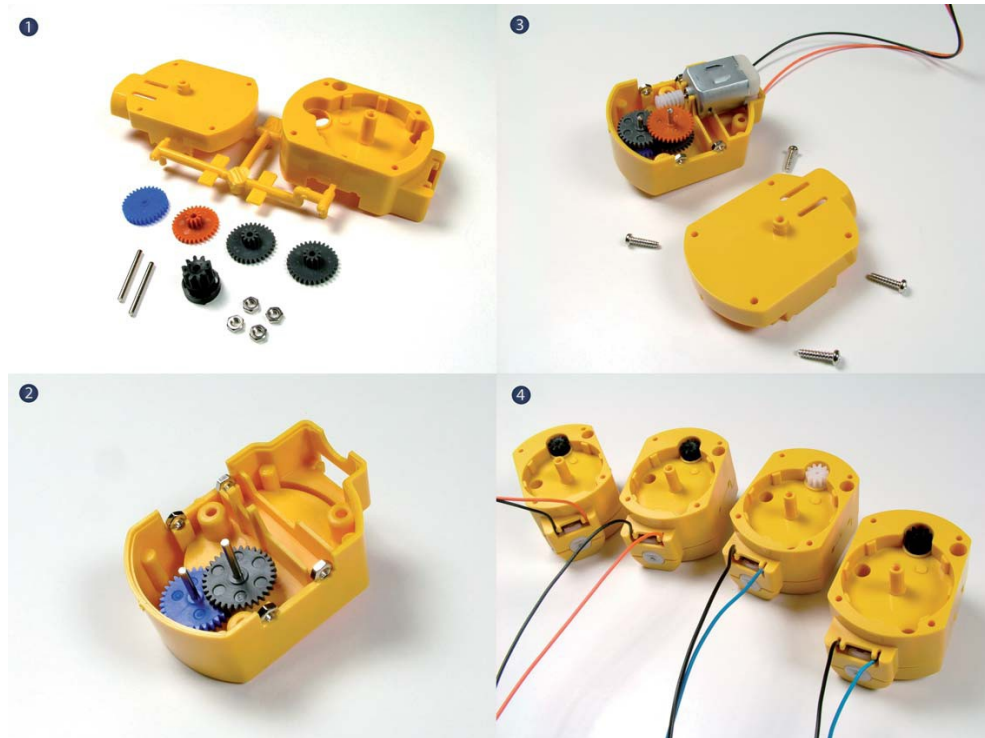
Step 1. ¶Blocks motor.

Picture 1.1. ¶Parts and structure for each of the five blocks engine of C-9895. ¶

Picture 1.2. ¶Assembly of the gears and the axes on the structure of the block. ¶

Picture 1.3. ¶Positioning of the engine and connection of the axis with the gears of drive. ¶

Picture 1.4. ¶Final assembly of the driving block, which will have to repeat with the various clean elements until supplementing the four blocks engine. ¶



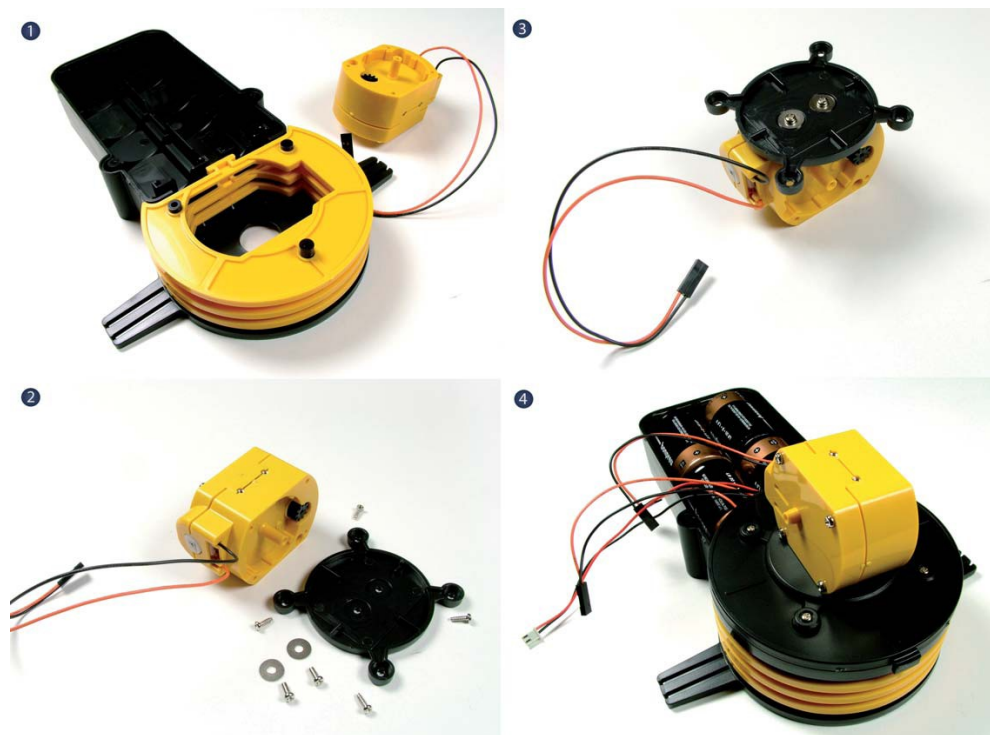
Step 2. Base, (back) of the arm

Picture 2.1. Assembly first parts of the base and insertion of the first motor block, ("back").

Picture 2.2. Parts and fixing elements for the second block motor, "shoulder".

Picture 2.3. Structure of the motor block prepared to be placed on the back basis.

Picture 2.4. Base completely built, with two motor blocks and battery inserted.



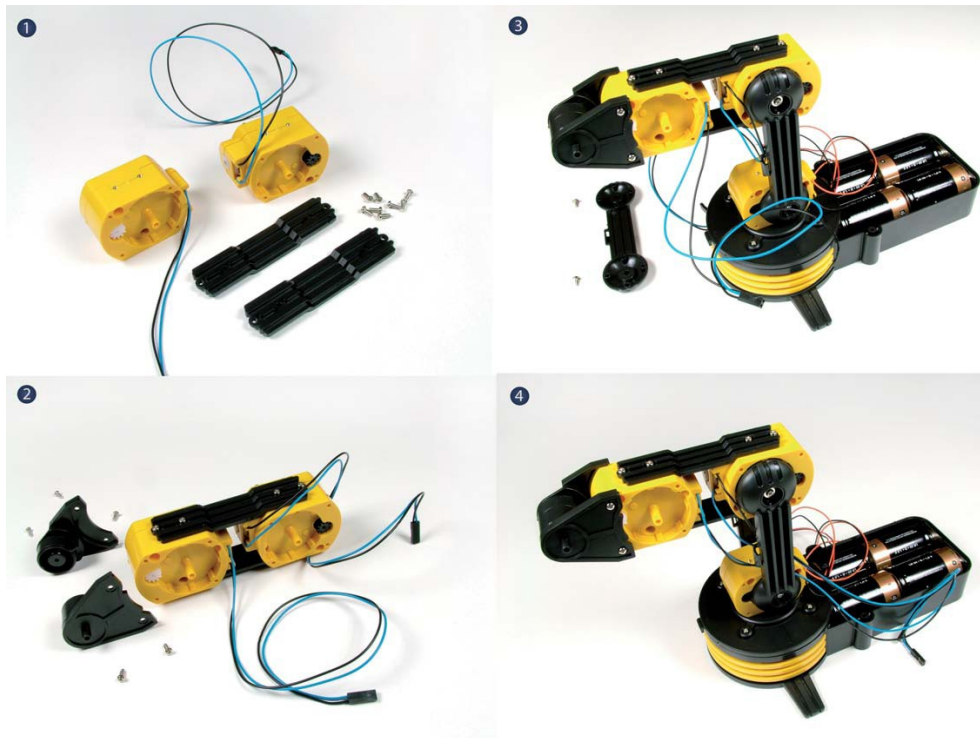
Step 3. ¶Elbow of the arm.¶

Picture 3.1. Assembling elements Assembling elements of two motor blocks engine composing the elbow.¶

Picture 3.2. Motor blocks fixed and adhesion of the support for the posterior hand/head assembly.¶

Picture 3.3. Assembly of the elbow to the base through transmission fuselage.¶

Picture 3.4. Base and elbow completely assembled.¶



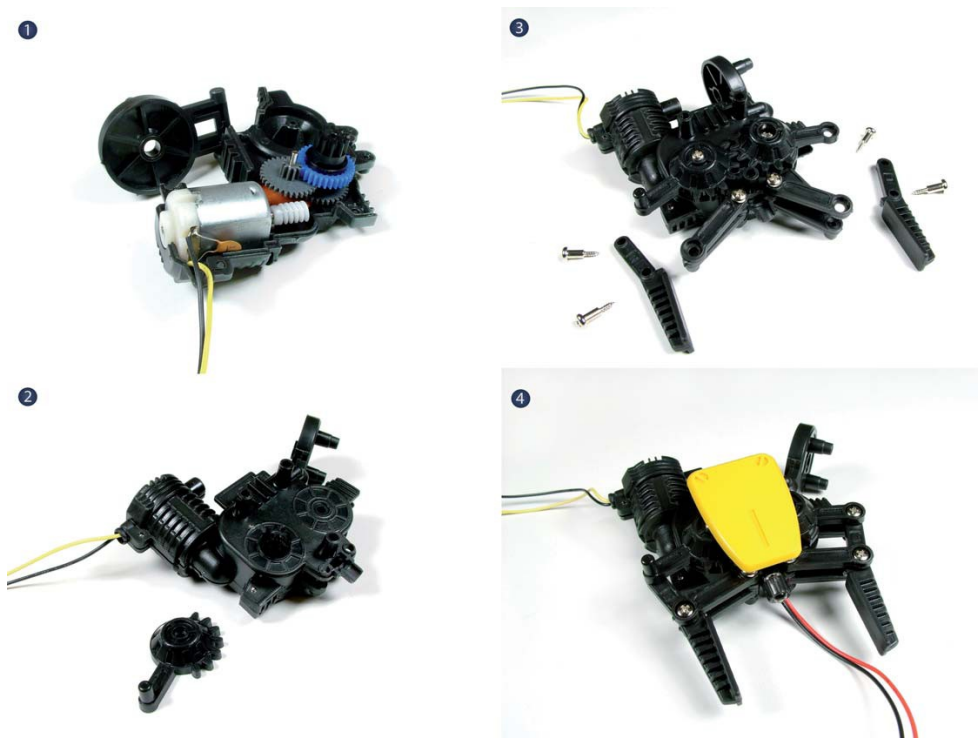
Step 4. Drive Hand or head of the Arm.

Picture 4.1. Internal assembly of the drive head's fuselage.

Picture 4.2. Fuselage assembly and connection of the different drive pincer's parts

Picture 4.3. Coupling pincers to head's torsion elements.

Picture 4.4. Lighting LED, superior hubcap and head completely assembled.



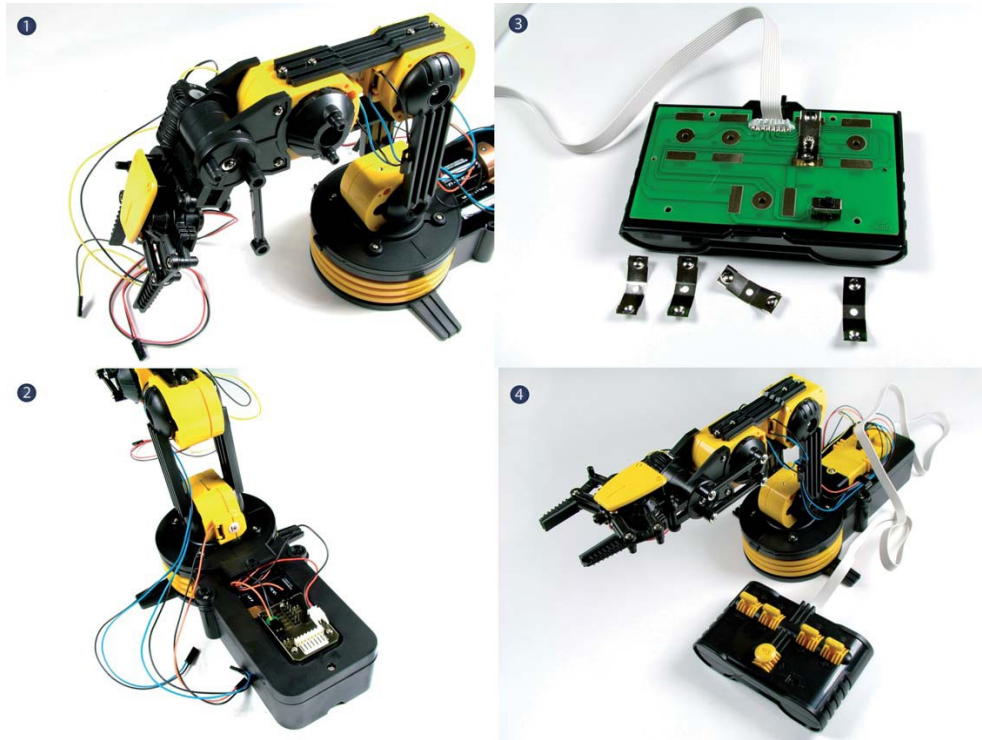
Step 5.¶Electric connections and final coupling.

Picture 5.1. Coupling of the drive head and transmission parts with the elbow.¶

Picture 5.2. Assembly of the basis electric plate and its electrical connection.¶

Picture 5.3. Assembly of the control box.¶

Picture 5.4. Finished electrical connections, control box and arm's hubcaps assembly..... ¶..Ready to start.



Step 6.Movements and functions

Picture6.1. Led to fix lighting on the pincers.

Picture6.2. Fixing/release movement of the pincers.

Picture6.3. Hand movement until 120°.

Picture6.4. Elbow movement until 300°.

Picture6.5. Shoulder movement from 120° up to 180°.

Picture6.6. Back movement until 270°.



Conclusions.

The Cebekit C-9895 is a remarkable Robot Arm thanks to its features. It is economic and it requires an assembly, which gradually submerges the user in the different robotics fields, specially recommended for didactic use, without the software complication (nevertheless it is prepared to be connected to an USB module allowing its control from a computer). Moreover, we will be able to light on, tight, slack, raise, drop or turn. A Robot Arm complete and ergonomic, which captivates and amuses its user.

Additional information : To consult the manufacturer web site: www.cebekit.es

