

## TS-427 Arduino UNO Robot Kit User Guide

These instructions are intended to help you assemble and wire the <u>TS-427 Arduino UNO</u> <u>Robot Kit</u> from <u>Tinkersphere</u>.



• Assembly Instructions:

Slide the long Motor Mount Screws through the 2 holes in the Gearbox Motor



Attach with Nuts. Repeat for the other motor.



Mount the first motor on the frame using 2 screws from above.



Repeat for the other motor and add the wheels.

![](_page_4_Picture_1.jpeg)

Turn the frame over and place the caster in place over the holes.

![](_page_5_Picture_1.jpeg)

Attach the battery strap through the slots as shown. (After you're done with assembly, this is where you will strap your standard 9V battery (not included) to power your Arduino UNO here and attach it with the Arduino Battery Adapter provided to your Arduino UNO. Slide the Arduino Battery Adapter through the round slot beside the Arduino for easy connecting.)

![](_page_6_Picture_1.jpeg)

Cut a 1/8" thick strip from your dual lock and cut it in half as shown using scissors. This will be used later on.

![](_page_7_Picture_1.jpeg)

Mount the Arduino using 3 screws, Remove the double stick tape off the back of the breadboard and place in place then, take the remaining dual lock and adhere one side to the chassis as shown.

![](_page_8_Picture_1.jpeg)

Attach the battery box to the other side of the dual lock for a permanent bond.

![](_page_9_Picture_1.jpeg)

![](_page_9_Picture_2.jpeg)

Slide the Servo Motor's Wire through the slot.

![](_page_10_Picture_1.jpeg)

Place the motor into the slot and apply the strip of dual lock you've cut before to the servo horn as shown.

![](_page_11_Picture_1.jpeg)

![](_page_12_Picture_0.jpeg)

Attach the other strip of dual lock to the Ultrasonic Sensor Mount and secure your ultrasonic sensor into the mount using a piece of tape.

Place the Ultrasonic Distance Sensor Mount on top of the Servo as shown.

![](_page_13_Picture_1.jpeg)

Place the H-Bridge Motor Driver chip onto your breadboard as shown. May be placed anywhere as long as it is over the middle groove.

![](_page_14_Picture_1.jpeg)

Now, you will hook up all the parts using the jumper wires you received in your kit. Hook up the components as shown in the diagram below:

![](_page_15_Figure_1.jpeg)

Congratulations! You've just completed the <u>TS-427 Arduino UNO Robot Kit</u>! This is the base for your new robotic projects! Plug in your Arduino UNO to your computer using the included USB cable and program your new robot. Download the sample code from the product page on Tinkersphere.com for an easy way to get started!