

# Drones



8th grade Engineering Model

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# Introduction

Have you ever wondered what that flying four legged bird is in the sky. Well it's a drone, a drone is an unmanned aerial vehicle, UAV for short. In the modern world drones have been seen everywhere, from military to agriculture and entertainment purposes. Even though drones are a new innovation to the public, it has been around for 169 years.

The earliest recording of drones have been for warfighting on August 22, 1849 it was more of a balloon bomb than a drone, Australians attacked the Italian city of Venice. In world war 1 the Hewitt-Sperry automatic Airplane also known as the flying bomb. It made its first flight as a concept of an unmanned aircraft. 1 year later in 1917 the Hewitt-Sperry automatic which led to the U.S army to make a project called the aerial tornado. After world war 1, 3 standard E-1's were converted to drones. Come to world war 2 when the missile replaced the concept of assault drones. Then in 1935 navy admirals visited London and saw a demonstration of a radio controlled aircraft the Queen Bee. Which then led to the creation of drones.

Modern attack drones which has been greatly used to fight terrorists over the past 16 years. The first ever drone strike that America did was a month after 9/11 which was not a success. The CIA's supposedly secret weapon targeted the Taliban leader and a fight to find the Taliban leader

lasted for 14 years. Then to find Osama Bin Laden a drone was used to track his hiding spot which was a really a big help to America in the 9/11 aftermath. Later in time a drone from NSC of USA was used to take out a terrorist from Afghanistan. Drones have a rich history in helping the government take out terrorists.

Drones are a very popular gadget throughout the public spotlight and these specific drones are for consumers in the public. These drones can be used for construction, agriculture, architecture etc. Two countries that are able to produce drones successfully is Israel and America. Many drones are on sale for civilians to buy, some of the most successful drone companies are dji and yuneec. How these drones work is by using 4 or more motors with propellers connected to a radio control signal. That is about drones that are for civilians.

Drones are a very innovative step in technology for their multi-purposes in different fields of jobs. Thanks to drones we have been able to find the terrorists that tried to attack our country. That is why I have this demonstration of a drone to show how it works. That is the history and numerous purposes of drones.

## Parts Used

- 1 piece PCB'A
- Top body Cover
- Bottom body cover
- Motor 1 (Red/Black Wires) (3)
- Red/Red LED 1 (1)
- 1.2 x 4mm Screws (16)
- Propellers A:Red (2), Black (2)
- 3.7V 250mAH Lithium Polymer Battery
- Motor 2 (White/Black Wires) (3)
- White/Green LED2 (4)
- Suspension Pads (6)
- Propellers B: Red (2), Black (2)

## Procedures

1. Solder 5 led's to the circuit
2. Solder the 4 motors using the positive and negative rule
3. Connect the circuit board to the drone frame and screw it on
4. Make sure the wires are organized then put on the other half of the drone frame and screw it on.
5. Put on suspension pads
6. Make sure controller is paired to drone
7. Finally let it fly

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