

## USER MANUAL

### A. Installation

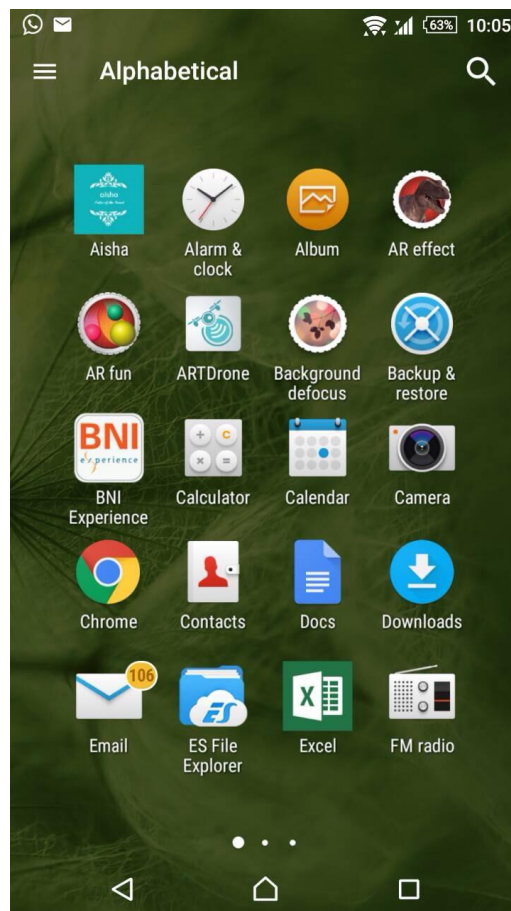
ARTDrone application is an Android-base application and designed to run in full compatibility with gadgets that featured:

- Touch screen support
- OS: Android 3.0 until Android 6.0
- SD card support

To install this application, simply open the installer file and choose option install and when it finish, ARTDrone icon will automatically popped up in gadget's menu.

### B. Application Launch

Click on ARTDrone icon which present in your gadget:



The icon of the application is made simple and look sophisticated to represent a drone communicating over internet:

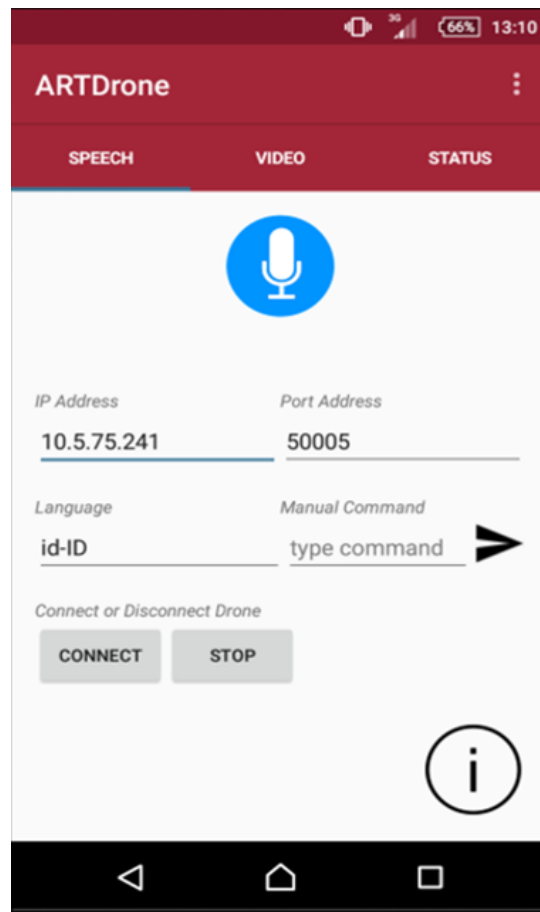


### C. Menu

First interface that shows up is the splash and follow by first tab preface.

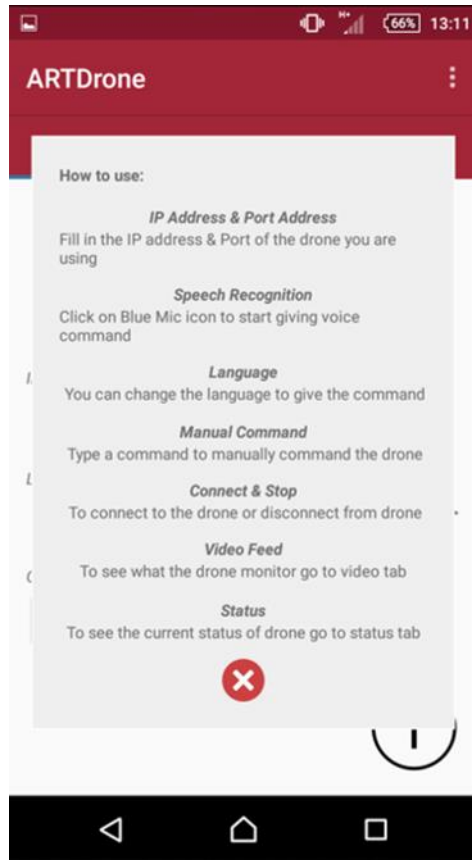


After the splash screen finish to load its activity, the first activity will commence which is the first layout tab will be present.

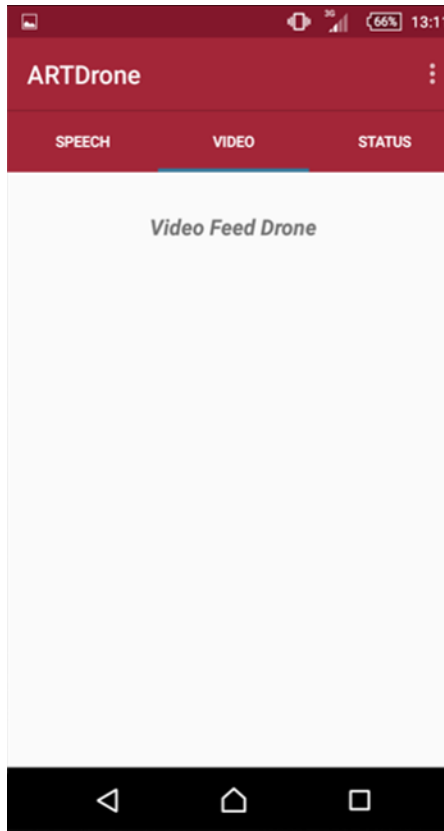


In this interface, you will see there are three tabs. Each tabs represent a certain task for the drone. The first tab is called speech which have the task to give commands through voice. Click the blue microphone button to start speaking by giving the command. The IP address and Port address is used to connect to the correct drone. You can change the language to give command in another language such as english or chinese. To give a better resulting command, user can type a command and manually sent it to the drone by clicking the black airplane icon. The information icon is the user manual on how to operate the application.

The I icon means information, can be click to show a pop up on how to use the ARTDrone android application. The popup message can be close by clicking the cross button.



The next tab is called video. This tab represent a function to let the user see what the drone see with the camera install on the drone. As the user connect to the drone it will automatically run the video. In the image below there are no image being shown from the drone because the application is not connected to the drone. If it is connected the size of the video will be a quarter size of the middle of the tab video. The video run on 20fps to make sure the video data being receive from the drone will be smooth and get a good pixel.



The last tab is called status. This tab lets the user monitor the status of the drone as shown in the picture below. The drone status will change when the application connects to the drone.

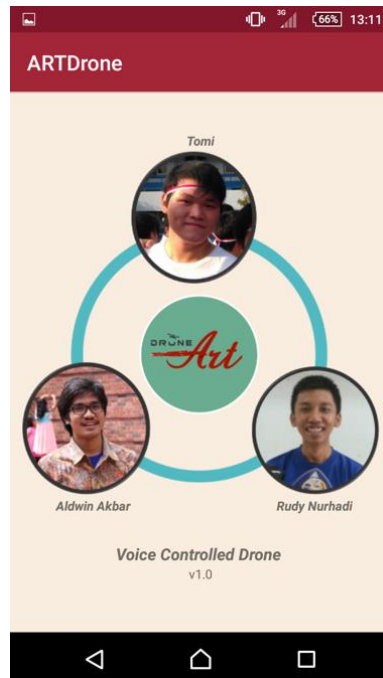
The Status tab provides you with several key information of the drone such as Arm mode, Flight mode, Altitude, Compass, Velocity x, y, and z, Temperature, Pressure and Battery. Each status represents the status of its name :

- ✓ Arm mode status show the user if a drone is arm or in a state of on or disarm or in the state of off.
- ✓ Flight mode status show the user the current mode of the drone whether it is in the air or on the land as landing.
- ✓ Altitude status show the height of the drone calculated from the ground.



- ✓ Compass status show you the current direction of the drone
- ✓ Velocity is the same as speed. Velocity represents the speed of the drone. There are three planes that is cover by the drone which is the velocity of x coordinate, velocity of y coordinate, and velocity of z coordinate.
- ✓ Temperature status show the heat of the drone status. This status shows if the drone is overheating or not. It can be use to know the surroundings temperature.
- ✓ Pressure shows the drone pressure status.
- ✓ Battery status show the length of battery life left in the drone power. This indicate how many powers left on the drone.

The action settings in the application provides an activity of the information of the developer of the application and the version of the application.



**Below is the list of the commands that the Drone will recognize,**

List of Commands:

- ✓ Maju x Meter → Move Forward
- ✓ Mundur x Meter → Move Backward
- ✓ Naik x Meter → Ascending
- ✓ Turun x Meter → Descending
- ✓ Kiri x Meter → Go left
- ✓ Kanan x Meter → Go right
- ✓ Mendarat Disini → Land
- ✓ Pulang ke Pangkalan → Back to starting point
- ✓ Lepas Landas → Take off

**PS. x is the number of meter metric**

Each command can be added words before or after the command sentences above, for Example:

- ✓ Recognize : *Saatnya naik 5 meter sekarang*
- ✓ Un-recognize : *Naik dong 5 meter sekarang*

In this version of application, the drone can only receive and recognize command in Indonesian language. Further improvement in various languages is in development.