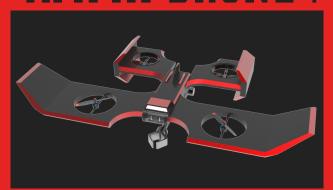
AMPHI DRONE!



3 FROM HOBBY TO RESEARCH THIS IS THAT YOU NEED

PROBLEM

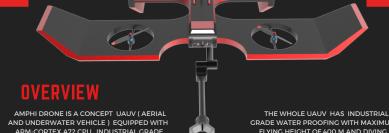
INSPITE OF OCEANS COVERING 70% OF EARTH, WE HAVE ONLY EXPLORED 5% OF EARTH'S OCEANS. IN THE SEARCH OF UNEXPLORED THERE CAME MANY BUT NONE COULD COMPLETE. THERE CAME A NEED OF A SAVIOUR WHO CAN NOT ONLY FLY BUT CAN ALSO SWIM TO EXPOSE THE NATURE'S BEAUTY AND IT'S MACESTIC BEINGS.

PROCESS

IN THE SEARCH OF INCREDIBLE AND TO EXPLORE THE SOARING SKY AND DIVING DEEP IN OCEANS TO LEARN EVERY NOOK AND CORNER ABOUT MOTHER NATURE WE DEVISED A DRONE WHICH NOT ONLY FLIES IN SKY BUT ALSO SWIMS UNDER SEAS TO EXPOSE THE UNEXPLORED. THIS IS R&D DRONE WITH A EASILY MANEUVERABLE ROBOTIC ARM AND THE TOTORS WHICH ALLOW FULL 180' TILT FOR HIGH SPEED MODE TO CRUSE THROUGH WATER AND AIR EASILY.

PROPOSAL

TO QUENCH THE THIRST OF EXPLORATION FOR RESEARCHERS AND HOBBYISTS. FOR UNDETECTABLE SURVEILLANCE IN MILITARY AND FOR DOMESTIC USES LIKE HULL INSPECTION. TRACK FISHING, AQUACULTURE, UNDESWATER FILMING, ETC. WE DIDN'T STOP WITH MECHANICAL DESIGN BUT WE ALSO DID POR DESIGN AND UX DESIGN FOR THE SAME



AMPHI DRONE IS A CONCEPT UAUV (AERIAL AND UNDERWATER VEHICLE) EQUIPPED WITH ARM-CORTEX A72 CPU, INDUSTRIAL GRADE ROBOTIC ARM, TILT ROTORS, 4K VIDEO CAMERA WITH H.265, FRONT 6000 LM LED LIGHT, EFFECTIVE 360° FULL ALTITUDE CONTROL, UNDERWATER HOVERING AND SELF BALANCING ROV WHICH CAN NOT ONLY FLY IN AIR BUT ALSO SWIM IN WATER.

IFIE WHOLE GAOV THAS INDUSTRIAL
GRADE WATER PROOFING WITH MAXIMUM
FLYING HEIGHT OF 400 M AND DIVING
DEPTH OF 200 METERS. TO REDUCE THE
AERODYNAMIC DRAG, IT HAS 4 EFFECTIVE
ROTORS WITH A UNIQUE BLADE DESIGN
AND A UNIQUE SPOILER DESIGN
INCORPORATED IN ITS REAR WHICH
ENABLES IT TO CRUISE IN AIR AND WATER.

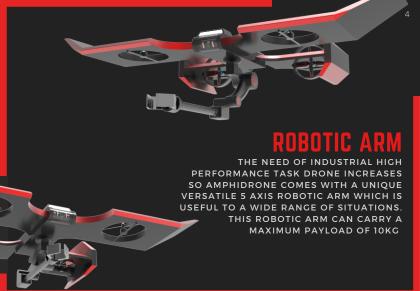


TILT ROTORS

THE TILT POTOR ENABLES THE UAUV TO ACCELERATE FASTER AND HAVE LESS AERODYNAMIC DRAG, THE SPOILER DESIGN INCORPORATED IN REAR ALSO ASSISTS TO THAT REDUCED DRAG. THE UNIQUE TILT ROTOR MOUNTED IN REAR OF THE UAUV ALLOWS A FULL 180° CIRCULAR TILT. THIS GIVE AMPHIDRONE A LEVERAGE OF 5 DEGREES OF FREEDOM, IT USES T NAVIGATOR WATERPROOF MN605-S 320KV MOTORS TO GET DESIRED SPEEDS IN BOTH AIR AND WATER, THESE ROTORS HAVE THEIR OWN DEDICATED SERVO SO THAT THEY CAN ROTATE INDIVIDUALLY TO IMPROVE AMPHIDRONE'S MANEUVERABILITY.







INTERNALS







A long range Telemetry system with ultra low latency



2 X 6s Li-Po with a multiline 22v connector **Power System**



MCU Raspi+Navio



Custom build on T-Motors Navigator MN water proof series X 4 nos



HG-60 40kg servo for tilting the motor









INITIAL PROTOTYPE



Motor holder with tilt mechanism

Body Design



T Motor with blade

Cimball fish eye camera





AMPHIDRONE COMES WITH MOBILE BASED CONTROLLER AND APP WHICH ENABLES THE USER TO CONTROL THE UAUV WITH EASE, BOTH CAMERA AND ROBOTIC ARM CAN BE CONTROLLED FROM

