

الآية

قال تعالى :

{ الله نور السماوات والارض مثل نوره كمشكاة فيها مصباح المصباح في زجاجة الزجاج كانها كوكب دري يوقد من شجرة مباركة زيتونة لا شرقية ولا غربية يكاد زيتها يضيء ولو لم تمسسه نار نور على نور يهدي الله لنوره من يشاء ويضرب الله الامثال للناس والله بكل شى عليم }

صدق الله العظيم

سورة النور . الآية (35)

DEDICATION

we would like to dedicate this humble effort to : our beloved
parents .. those who gave and loved unconditionally .. those
who raised us to become the men we are today .Our brothers
and sisters.. who stand by us .. Our teachers .. who translated
the sophistication of the world for us .. Our friends .. the
smile of our lives ..

ACKNOWLEDGMENT

A first of all thanks to the grace full merciful Allah S.W.T for
lightening the path and subduing the obstacles which may
would prevent this effort for seen the light .

Grate thanks and gratitude to our parents who supported us
through happiness and sorrows The thanks extend to our
supervisor UST: **Galal Abdelrahman Mohemmed**

Hammadfor extra care and patience through his precious time
sharing us his knowledge .

ABSTRACT

The main basis of the research that to give a craft the ability to take off from the ground and landing safety with RC controlling using radio waves (Tx & Rx). And using a programmed chip (KK flight control board) and learning how to use it and adjust it to do the required needs, That should be conducted by gathering the required data & calculations of the both states . And adding a wireless camera for broadcasting video.

المستخلص

الغرض الاساسي من هذا المشروع هي اعطاء مركبة القدرة على الطيران والهبوط بامان، ويتم ذلك عن طريق استخدام اجهزة التحكم عن البعد المتمثلة في جهاز الارسال والاستقبال عن طريق موجات الراديو.

ويتم التحكم في هذه المركبة عن طريق متحكم خاص بالتحليق مبرمج مسبقا يتم ضبط متغيراته على حسب وزون وشكل المركبة للتحكم في استقرارية طيرانها ، لأداء المهام المطلوبه منها ، مع اضافة كاميرا للبث الحي لاداء وظيفة التصوير كهدف من اهداف المشروع .

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LIST OF ABBREVIATIONS

DC	Direct Current
AC	Alternating Current
PID	Proportional- Integral – Derivative
CW	Clock Wise
CCW	Counter Clock Wise
VTOL	Vertical Take Off and Landing
UAV	Unmanned Aerial Vehicle
PWM	Pulse Width Modulation
RC	Remote Control
Tx	Transmitter
Rx	Receiver
FC	Flight Controller
ESCs	Electronic Speed Controllers
Gyro	Gyroscope
Acc	Accelerometer
LiPo	Lithium-Polymer
BLDCs	Brushless DC motors
BEMF	Back Electro-Magnetic Force