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Robotic surgery

An essay submitted for partial fulfillment of

Master degree in general surgery

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2014

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا

إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ

صَدَقَ اللَّهُ الْعَظِيمُ

سورة البقرة الآية ٣٢

Acknowledgement

First of all, prayerful thanks to our Merciful "**ALLAH** ", who gave me the ability and patience to finish this work

Cardial thanks; sincere gratitude and respectful appreciation are offered to ***Prof. Dr. Awad Hassan al-kayal*** , *Professor of General Surgery Faculty Of Medicine ,Ain Shams University* for his continuous guidance, encouragement and consistent advice and keen suggestion during the course of this study.

Sincere thanks and indebtedness to ***Prof.Dr. Ibrahim mohammed el-zayat*** . *Consultant Of General Surgery Mansoura International Specialized Hospital* for his interesting supervision, faithful advices, helpful suggestions and cooperation during the course of this work.

Gamal Mohammed Sabry

2014

Dedication

This work is dedicated to those who give a meaning to my life.

To My father, my mother and my grandfather who give me everything without waiting for anything.

To My dear Wife who is always supporting and patient.

To my sister who is always side by side with me.

To my sweet heart, my daughter, Aseel who add happiness to my life.

To the spirit of my grandmother who I missed so much.

To every child in the world who are suffering from damage of wars.

Gamal mohammed sabry

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List of abbreviations

AESOP	Automated Endoscopic System For Optimum Positioning
API	Application Programming Interface
APS	Automated Positioning System
ASD	Atrial Septal Defect
BC	Bimanual Carrying
CO2	Carbon Dioxide
CPB	Cardiopulmonary Bypass
CRT	Cathode Ray Tube
CT	Computerized tomography
CV	Crossing Vessels
D	Total travelling distance of surgical instrument
2D	2-Dimensional
DOF	Degree Of Freedom
ETV	Endoscopic Third Ventriculostomy
FDA	Food & Drug Administration
HZ	Hertz