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REG NO: **15/U/13152/EVE**

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PROJECT PROPOSAL FOR 7th ANNUAL CEDAT OPEN DAY

<u>SECURITY MONITOR SYSTEM FOR HOMES AND BUSINESS ENTERPRISES</u>

I am a third-year computer engineering student working with the iLabs@MAIC project as a student Researcher.

The project proposed above is an embedded systems project, one meant to increase efficiency in the notification of intrusion, unauthorized access and burglary into business enterprises premises and homes for domestic use, hence increasing the security level in people's premises.

Being an embedded systems project, it requires a microcontroller which ARDUINO am already accustomed, then also some sensors which will be able to detect unauthorized access with for example finger print scanners in biometrics or touch sensors, ultrasonic sensors, cameras which all have module shields that can connect with the Arduino microcontroller to implement the security system proposed.

The system works in a way that when one who has unauthorized access tries to access the given premises where the system has been installed, then immediately the system will send a notification to the owner through either SMS, PHONE CALL, EMAIL, sound an alarm immediately at the premises indicating DANGER!!! and also forward the same message of an intrusion to the security organization in Uganda, Uganda Police or the specific security organization that a company uses such that they can immediately get notified and act upon the danger.

The future prospects for the project include using the Arduino CAMERA module for recording videos and also taking pictures and sending them to the owner of the system immediately an intrusion is made.

The project is also to be implemented as a product which is already packaged and can be purchased by someone immediately rather than just an assembly of circuits without order.

BUDGET FOR THE COMPONENTS REQUIRED

COMPONENT	PRICE
ARDUINO MICROCONTROLLER	UGX 50,000 from swiftshop_ug
GSM MODULE SIM800L	UGX 90,000 from Innovex
SPEAKERS FOR ALARM	Covered
SOLDERING GUN	Covered
SOLDERING WIRE AND BOARD	Covered
SERVO MOTOR 1KG	20,000
TEMPERATURE SENSOR	5,000
ULTRASONIC SENSOR	20,000
TOTAL	**185,000**

The total cost for implementation of the project so far is UGX 185,000.