



國立中山大學
COLLEGE OF ENGINEERING, NSYSU

聯合專題
競賽與展示
工學院

資訊工程學系

Department of Computer Science and Engineering

第40組:許家愷

指導老師:黃英哲 教授

預防農作物遭野生動物破壞驅趕系統

壹、摘要及動機

近年來，獼猴受到人類的開發影響，棲息地越來越少，導致沒有多餘的空間去生存，而闖入人類的生活空間，因不當餵食，誘發獼猴的搶食和攻擊性行為，加上農作物被偷吃或破壞，人猴衝突白熱化。

如何不傷害動物、並且將牠們和平驅趕為主要目標

貳、解決方案

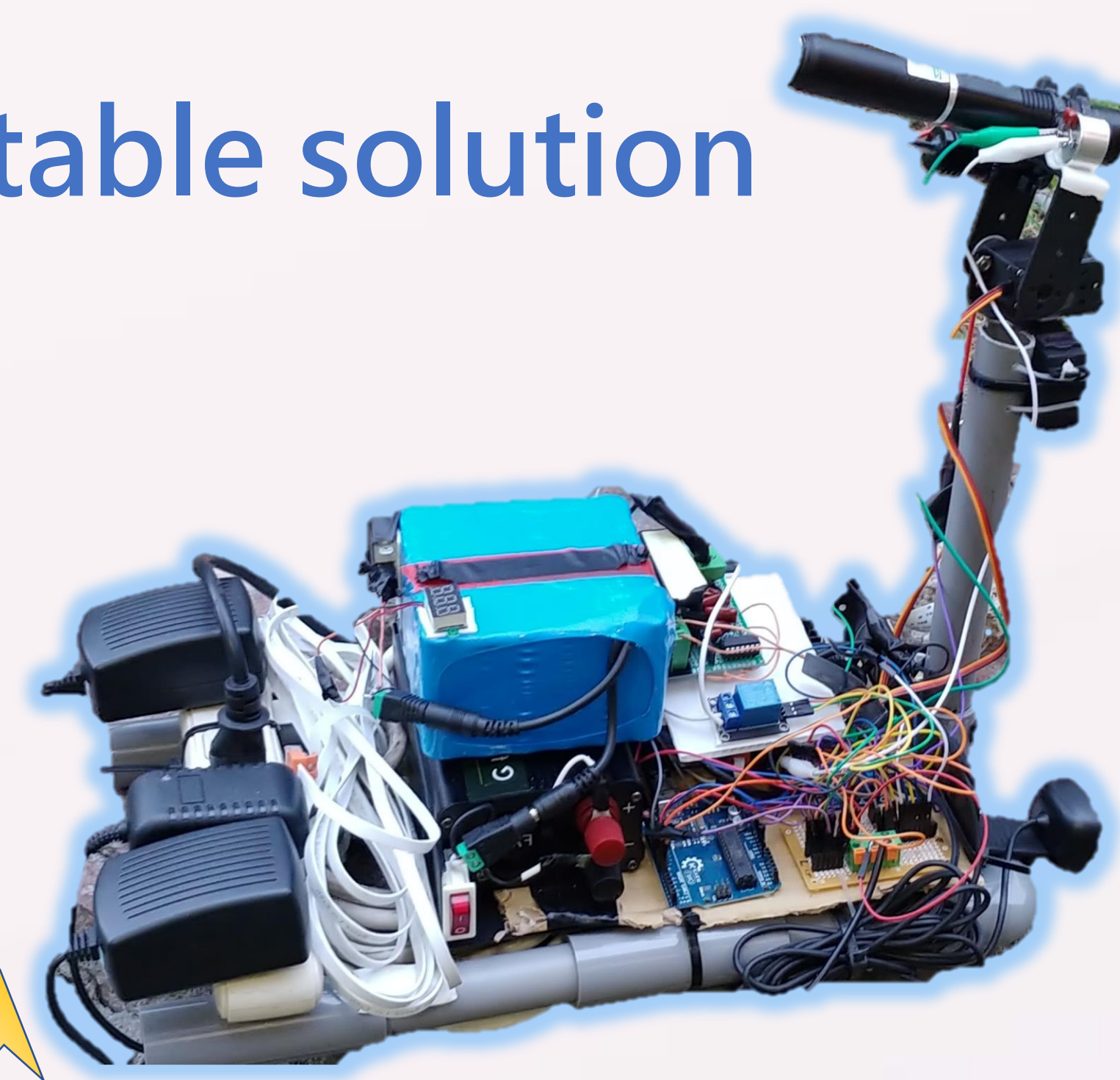
Locate the animal which break into farm

Try to aim at the animal

Using some method to drive the animal away

參、Solution

Portable solution



Processing Part

CHT(future)

Tasks:
Camera Calibration
Animal Detection
Laser Positioning

Embedded
Computing
Device
(Jetson Nano)

IR camera

Normal camera

Arduino Uno

two Servo Motor

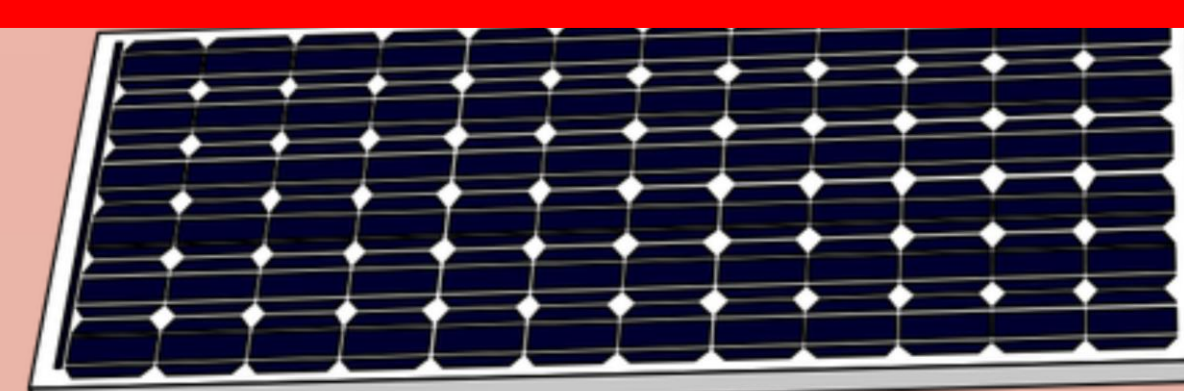
Sensors
(future)

UltraSonic
Generator

UltraSonic
Speaker

IR LASER

Power Part



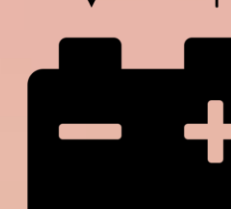
Solar Panel
(max 70W)

Solar Charge
controller

Power
inverter

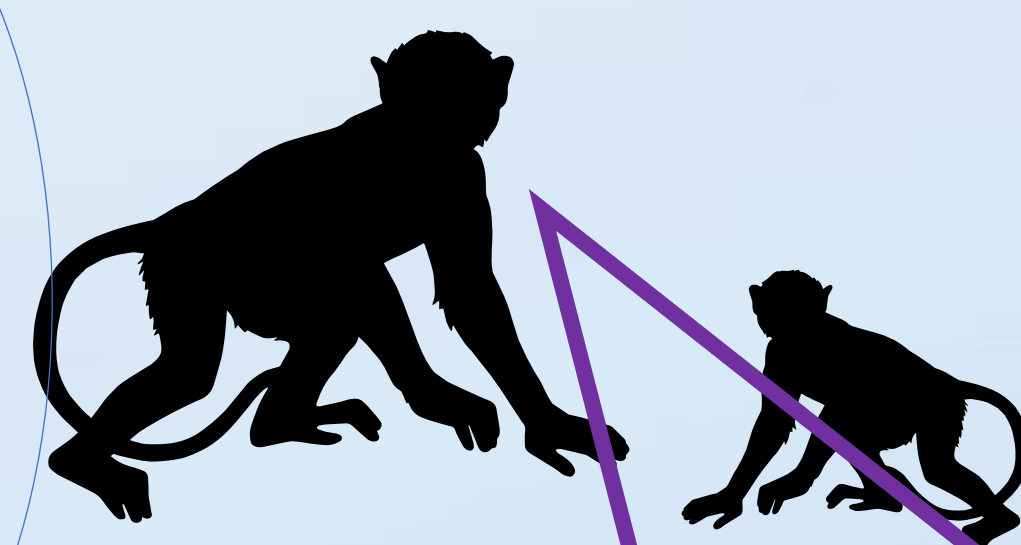
DC≈24v

AC 110v



Battery
24v
16.8Ah

On Portable
solution



It's too noisy here ,
let's stay away from
the farm!!