

# 魔戒

makeNTU 2019

清大電機系頭腦變機器

# Outline

- Idea
- Approach
- Result
- Future

# Idea

- Lazy -> hand gesture -> facial feature
- Wearable device
- Smart home
- Better UI/UX design

# Approach

- Azure API : computer vision (CV) -> gets the feature to activate functions
- Raspberry pi : works as an IoT central, connects Arduino and does cloud computation but also controls music
- Two Arduino (Linkit 7688 duo) :
  - One act as a Bluetooth interface
  - One with MPU-6050 module work as new type controller (wearable device)

# Result

- Accomplishment:
  - The laziest way to start a action (just smile or do nothing)
  - Interact with device more instinctively
  - High precision
- Problems to be solve:
  - Cannot be real-time
  - Smoother control

# Future work

- Design a more delicate model suitable for edge computing
- Find more feature to recognize
- More service and can learn to serve human better