DogeFetch

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Meet Link
The Problem

Dogs require constant attention

But people are sometimes too busy
The Solution... DogeFetch!

The automatic dog fetch machine!

Entertain your dog when you’re not around!
The Video

Dog Found
Kinect detects dog's side and rotates base servo.
The Hardware
Implementation

Software

- Threads on threads
- OpenCV

Hardware

- Raspberry Pi GPIO
- Librekinect
Vision
Actual Device
Challenges Faced

- Faulty USB charger for the Pi
- Pi kept overheating
- Syncing Kinect with Pi (previously trying Beaglebone)
- Latency for Kinect
- Building the actual device with parts
- Servo not as powerful as expected
- Microswitch not reliable
Lessons Learned

- Power consumption
- Mechanical Engineering is hard
  - 3D printing
- Plan wiring in advance
  - PCB
Next Steps

- Housing
- Moar Dogs
- Rotation
Link to our video

https://www.youtube.com/watch?v=tQ1lts0a2JE