## The Blindinator

By Ivan Cooper & Meena Shah

\* Computer Vision with SimpleCV \*

\* USB Servo/Laser control \*

## SimpleCV

- Free Python 2.7 based computer vision API
- Based on OpenCV
- Easy to work with images, cameras, display
- Built in ability to detect some objects/features
- Training functions



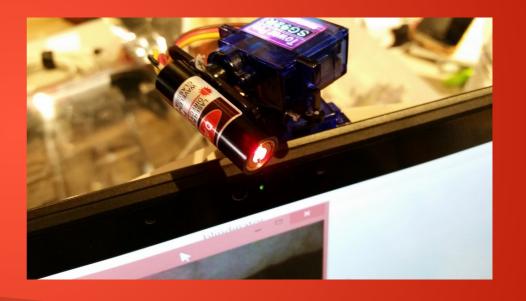




- Tiny USB microcontroller
- Plugs directly into laptop
- Compatible with <u>some</u>
   Arduino code and libraries
- Software emulated USB convenient but imperfect...

## Laser and Servos (from Adafruit)

- 5mW Class IIIA TTLcontrolled laser
- Tower Pro SG92R Servos
- All parts plug directly into microcontroller
- Everything is powered by the USB port



## Testing and Demonstration



- Safety first!
- Manual calibration
- Keyboard controls

DON'T TRY THIS AT HOME, KIDS