Gesture Controlled Drone
Project Checklist
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The commitment

- ❏ Kinect Input:
  - ❏ Feeding raw Kinect data to a PC
  - ❏ Using open source tools to convert those values to hand coordinates
  - ❏ Sending the hand coordinates to the USB port
- ❏ USB Adapter
  - ❏ Receive data from USB, alter format to be readable by Gesture Recognition State Machine
- ❏ Gesture Recognition State Machines
  - ❏ Receive data from USB Adapter module
  - ❏ On gesture - circle gesture
  - ❏ Off gesture - hands going in an outward motion and back in
  - ❏ Hover gesture - height on screen
  - ❏ Pitch gesture - depth in space
  - ❏ Roll gesture - difference in vertical distance between hands
  - ❏ Send data to outputs
- ❏ Analog conversion
  - ❏ Transform gesture data to analog voltages
- ❏ Interfacing with the controller
  - ❏ Connect analog voltages to remote control
- ❏ basic feedback from PC

Expected

- ❏ integrate all parts mention in minimum section

If time permits - stretch goals

- ❏ Feedback display
  - ❏ Vertical and horizontal lines corresponding to “buckets” used in gesture recognition
  - ❏ Colored circles to represent hands, with color representing depth
  - ❏ Feedback about which gesture is currently tracking
- ❏ Video streaming
- ❏ Control logic to prevent quadcopter from crashing (e.g. integrate with Greg Kravit’s project)
- ❏ Add to display
  - ❏ bars displaying value for each gesture

- (e.g. which gesture, what value for that gesture is being output)