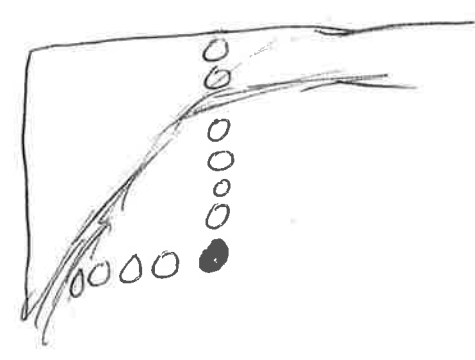
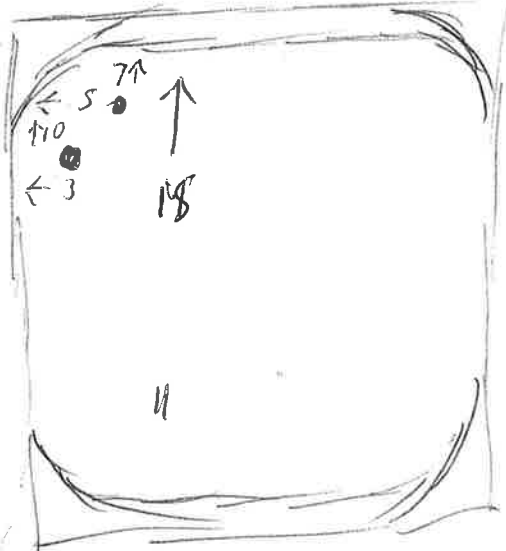


Robot face To-Do

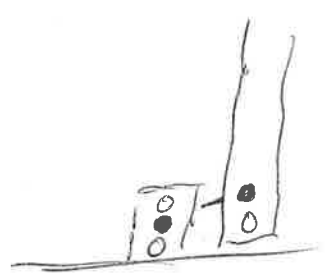
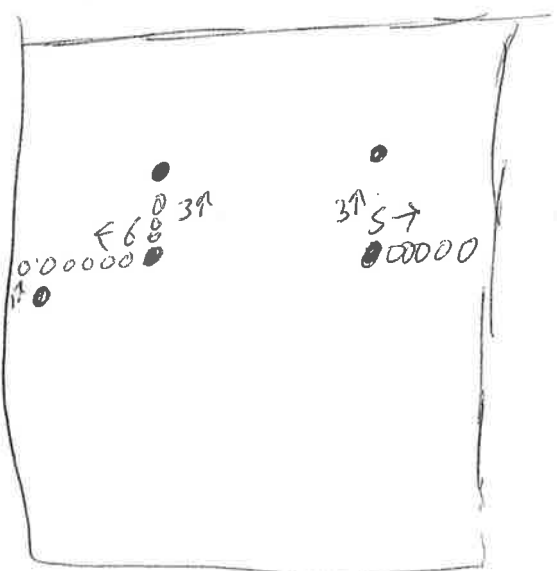
Summer 2013

- ① set up eye-gazer saccades (✓)
- ② Learn max ^{constraints} ~~constraints~~ from motion
- ③ setup of voicebox stuff
- ④ Setup easy VR
- ⑤ ~~Buy another neck mechanism and ^{two} generic sound sensors~~ (✓)
- ⑥ Buy another camera
- ⑦ setup sound localization with two sound sensors, ~~head-pan~~ saccading
- ⑧ Look at multi-model sensor fusion (sound/sight)
- ⑨ ^{can't} determine depth of face from 2 short saccades?
- ⑩ Setup peek-a-boo experiment
- ⑪ Create Robot face Arduino Library (from Eye Gazer code) (✓)

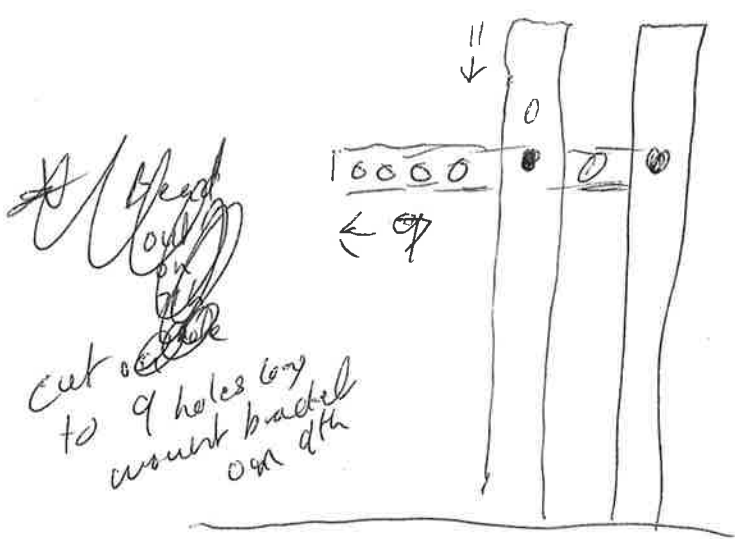
① - universal plate setup



② - universal long arm



③ Eye Mounting (left, flip for right)



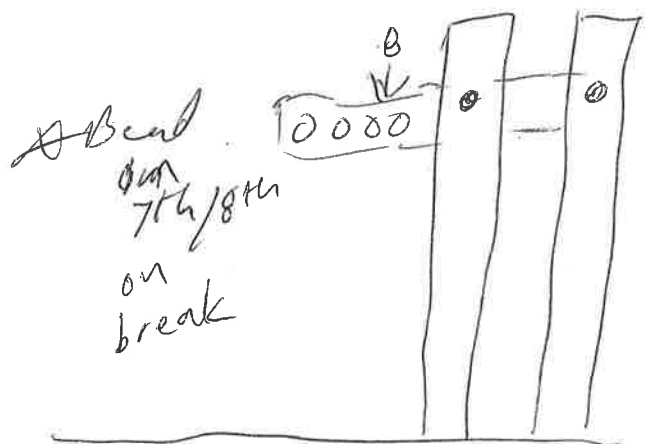
Bend out on the side
cut wire to 4 holes long
mount bracket on 4th

orient servo wire inside



orient wrap using 4-hole metal joint

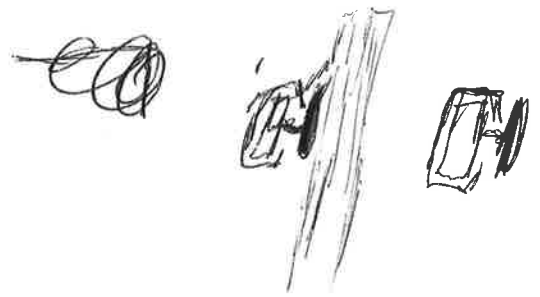
④ Eyebrow mounting (left, flip for right)
First servo raise/lower motion



Bend out 7th/8th on break



wrap horizontal orient on side 7-hole metal joint

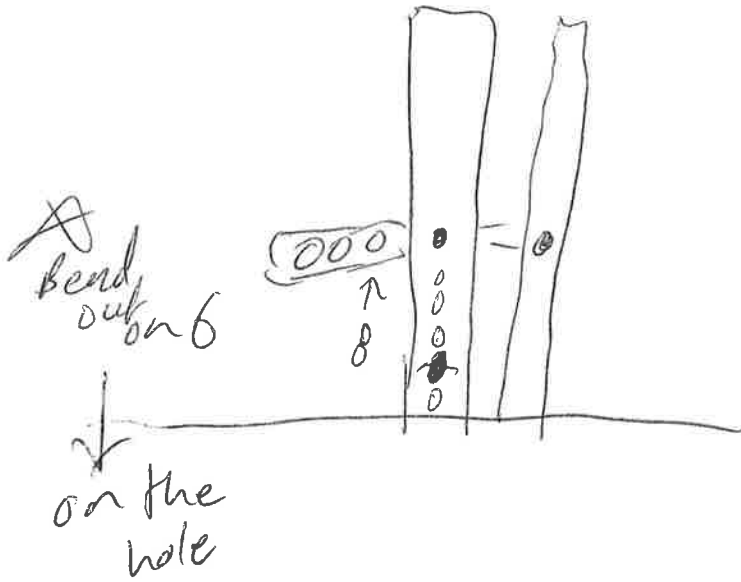


orient servo wire up

③ Mouth Corner mounting (left)

First servo | dip part motor

* connect 4-hole metal joint as extender to 2nd hole from outside

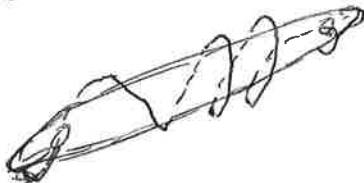
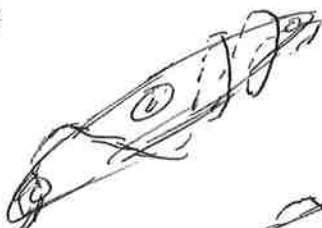


* make horizontal 2-hole wrapper connect to outside most hole

Top view



- Using Gauge wire on screw holes
for mounting pipe cleaners



* creates
3 loops to
secure

- ^{Hot} Tip #1: put washer on outside

all from ^{angles} Robot perspective (so ^{upper} right is really left to observe)

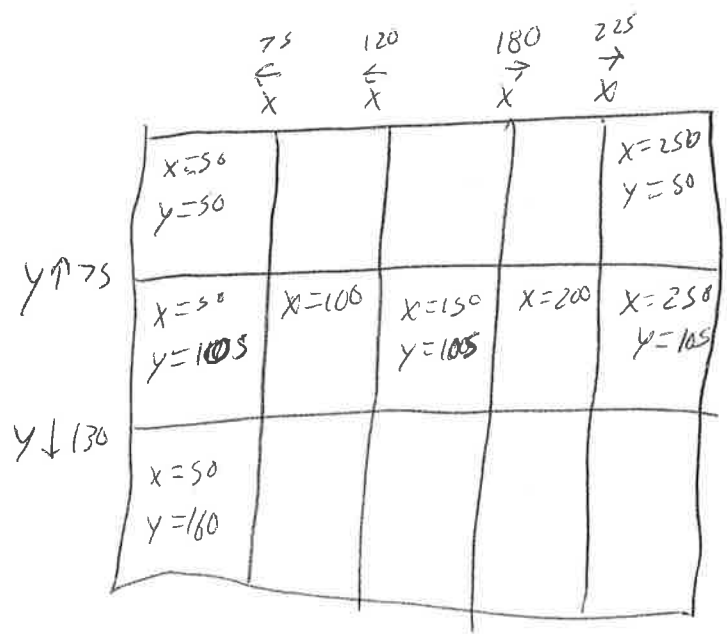
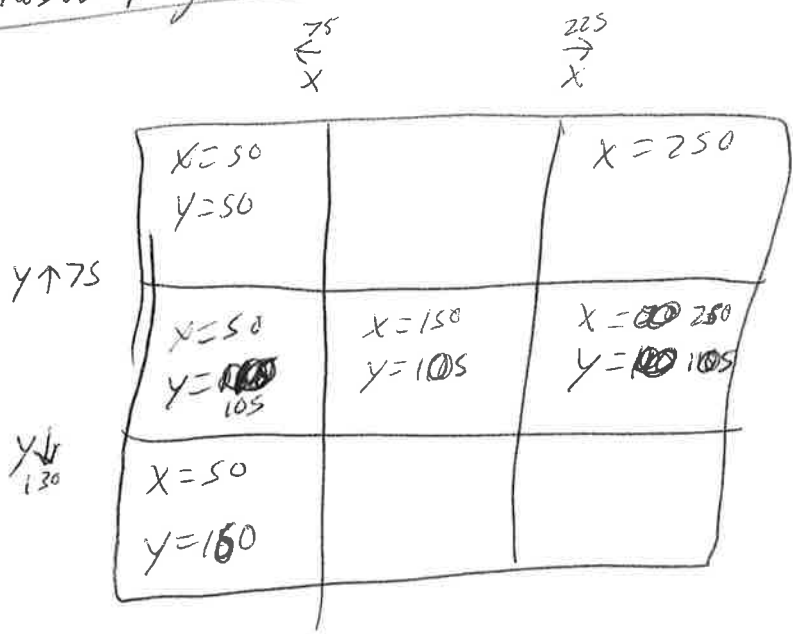


Image Scale 2

~~x min~~
x min

160

x max
~~280~~

y min
40

110

	y = 40	
x = 40 y = 110	x = 160 y = 110	x = 280 y = 110
	y = 180	

y max
180

~~x = 80~~
~~y = 55~~

x = 80
y = 55

Image scale 4

~~20~~ - 80 - ~~140~~

y
20
|
55
|
90

Before Japan to-do

Tue

- setup saccade on eyegaze, add delay if not found
- play with new camera

Thurs

- solder protos
- start replacing screws on 2nd

Tue

- finish second, test all experiments

Thurs break down &

- Pack up

- include spare screws, metal arms, and arduino/protos shield

- don't forget USB cable

- gage wire

- pipe cleaners

- web cam

- screws

- paper flaps

Ideas For Paper

- ① - Discuss universality of Emotions, controversy
 - cite Jack 2009, 2012, Koda papers, Yukie et al, Ruttkay
- ② - Discuss Emotion hypotheses
- ③ - Issues with language used and cultural connotations, *Solomon - Whorf Hyp.*
 - Issues with Digital vs. Embodied
- ④ - Context issues

1

→ point out that this view may make the discrete vs. continuous emotion views compatible

Conclusion

- Discuss Embodied cognition, and issues related to using culture/context for information scaffolding in HCI
- Recap how our results fit into previous results, including Jack/Koda, Klemson, Becker-Asano, and *context papers*
- Challenge emotion hypotheses
- Pick up on Lindquist & Gendron's Dynamical systems hypothesis
- Incorporate Barsalou, Brazeeal, & Smith paper ideas
- Quote Lindquist & Gendron

- R
- Kstudio
- IJSR draft online
- Google groups John

activity = [sum of activity, avg direction]

~~Version 1: sparse optical flow raw~~
(only top 20?)

~~Version 2: total facial activity (sum)~~

~~Version 3: total activity in 9 subsections~~

~~Version 4~~

~~edge detection, facial gestures py~~

- ~~Facial activity ~~video~~ + talk~~
- ~~use best features to track ~~to~~ corner detection~~

~~edge detection~~

- ~~New features to track each time point?~~
- ~~finish 6000 Atlas~~
- ~~facial-gestures.py~~
- ~~trigger facial expressions based on human head motion and facial activity~~