YOUR DRAWING MACHINE

Foam core, tape, and fun

Tools

- You have servos for movement
- You have pots for control inputs
  - Or you can write a program to move things in a specific or random path
  - (You might have light sensors too…)
- You even have LEDs to dress things up
- We have lots of foam core, tape, pens, etc.
Tools – Multiple Servos

- Each servo needs its own “servo object”

```c
#include <Servo.h>                  // include the built-in library
Servo servo1, servo2, servo3;  // make a servo object for each servo

void setup(){
    servo1.attach(9);           // attach each servo to a different pin
    servo2.attach(10);         // They can all share power and ground
    servo3.attach(11);        // (until you get too many... 3 should be fine)
    ...
}  
void loop() { 
    ...
    servo1.write(30);                      // now you can control each servo
    servo3.write(random(0, 180));   // independently
    servo2.write(sensorValue);
    ...
}
```

Ideas – Multiple servo arms

- Three servos – controlled by your program, or by knobs or light sensors
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Ideas - Pantograph
Ideas – A different Pantograph

http://www.mekanizmalar.com/pantograf.html

Ideas – A triangle linkage
A rotating/linear combination

Our Target
Another Possible Target

Really – anything that makes a mark!

- There should be lots of ways to make a mark with servos, light sensors, pots, and an Arduino...
  
- Dazzle Us!
Instructor Contact Info

- Erik Brunvand, School of Computing
  - elb@cs.utah.edu

- Paul Stout, Dept. of Art and Art History
  - paul.stout@gmail.com

- Ginger Alford, Trinity Valley School
  - gralford@acm.org