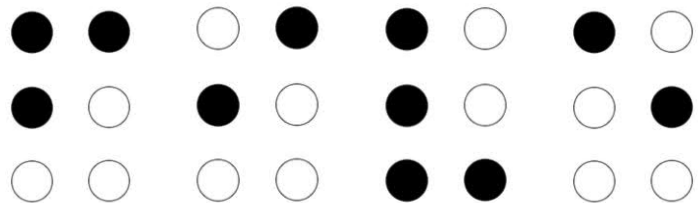# CS21 Final Machine Project: Binary to Braille
Deadline: 30 March 2012

Idea: Convert, Convert, Convert
Given six bits of data, convert it into decimal form.
Based on its decimal form, convert it into numeral form.
From the numeral form, print every letter using its Braille form.

Example:

Given: 0 0 0 1 0 1
Decimal form: 5
Numeral form: five
Braille form:

Input: Seven Switches
• Use six switches to represent the bits of data
• Use another switch that will act as an input flag (on: get input, off: do not get input)

Output: Six LED lights
• Use six LEDs to represent the dots in a Braille letter
• While flashing each letter, there will be a delay of 2 seconds in between flashes
• For white spaces, all lights are turned off

t = 0s	t = 2s	t = 4s	t = 6s
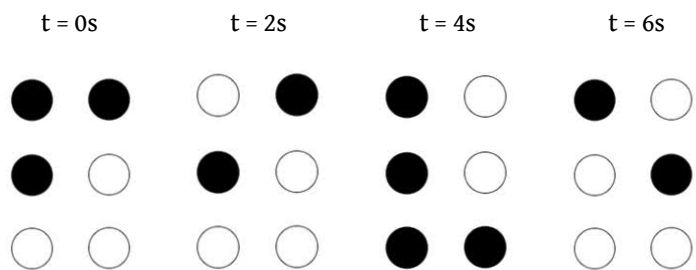
Machine: Arduino
• All operations (except switch input) will be done in Arduino.
• Use pins 1 to 6 for input bits, pin 7 for input flag, pins 8 to 13 for Braille dots
• Note that the input may change during runtime (thus the need for the input flag switch)

Scoring
• Input switches	10 points
• Binary to decimal conversion	10 points
• Decimal to numeral conversion	10 points
• Numeral to Braille conversion	10 points
• Braille output	10 points
	50 points total