DUCSTeach Workshop 04 - Keyboard Piano
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Time: 45 Minutes
People: 10 - 15 People
Materials:

- 5 Arduino Unos with 170 pin breadboard
- Jumper Wires (5 light green, 10 yellow, 5 orange, 5 green, 5 red, 3 misc)
- 2 10k Ω Resistors
- 220 Ω Resistor
- 1M Ω Resistor
- USB Type B Cable
- Laptop with Arduino IDE installed
- Piano.ino file

Steps:

1. Insert a light green wire into Arduino port A0. Insert the other end into breadboard 28.
2. Insert a yellow wire into GND.
3. Insert a orange wire into 5v.
4. Insert the other end of the yellow wire into the breadboard - rack.
5. Insert the other end of the orange wire into the breadboard + rack.
6. Insert a red wire into Arduino 8.
7. Insert the other end of the red wire into breadboard a5.
8. Insert a yellow wire into the breadboard - rack.
9. Insert the other end of the yellow wire into a3.
10. Insert the piezo into c3 and c5.
11. Insert a green wire into breadboard a14.
12. Insert the other end of the green wire into the breadboard + rack.
13. Insert the red, red, black resistor into a18. Insert the other end into breadboard + rack.
14. Insert the brown, black, orange resistor into a22. Insert the other end into breadboard +.
15. Insert the brown, black, green resistor into a26. Insert the other end into breadboard +.
16. Insert another brown, black, orange resistor into c28. Insert the other end into bread. -
17. Insert one misc wire into breadboard d16 and d20.
18. Insert another misc wire into breadboard c20 and c24.
19. Insert another misc wire into breadboard d24 and d28.
20. Insert a button into e14/e16 with the other two prongs in f.
21. Insert a button into e18/e20 with the other two prongs in f.

22. Insert a button into e22/e24 with the other two prongs in f.
23. Insert a button into e26/e28 with the other two prongs in f.
24. When finished, connect Arduino via USB cable to IDE and load Keyboard file.
25. Lesson Completed (optional: connect resistor to long stick to show diminished brightness).