Fall 2014

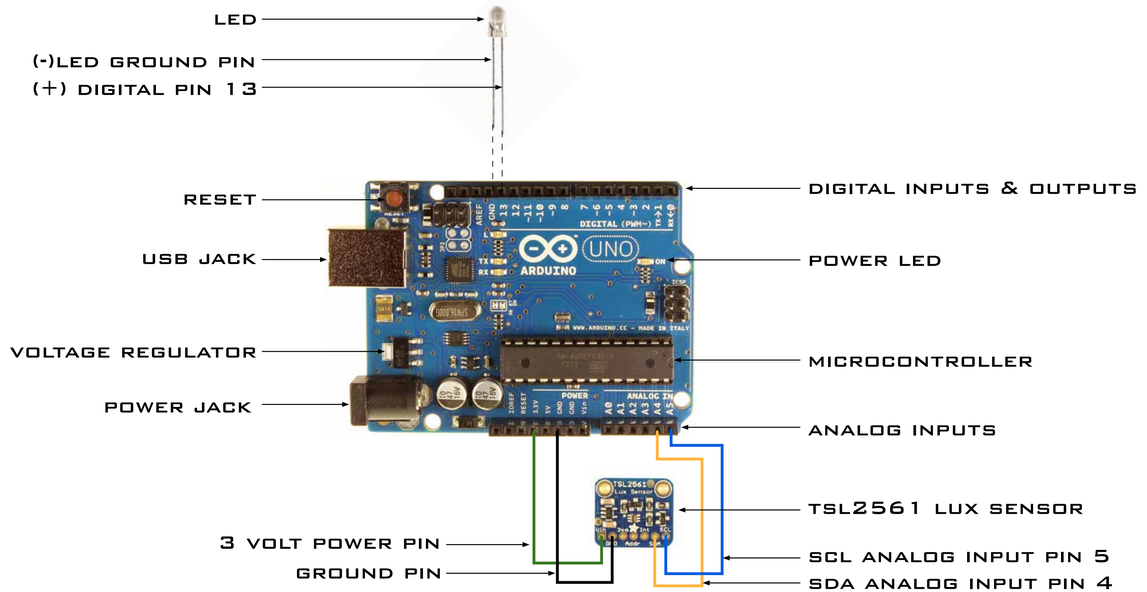
Arduino Microcontroller + Adaptive Architecture Responsive Illuminance Device

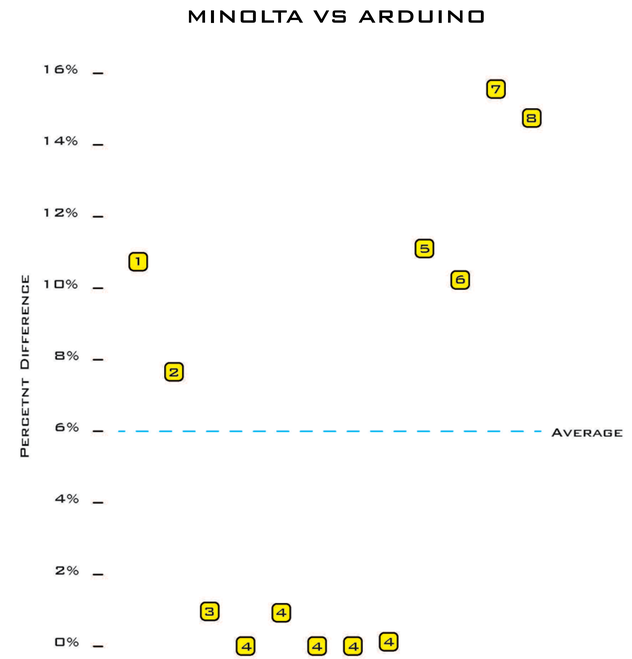
Portland State University. School of Architecture

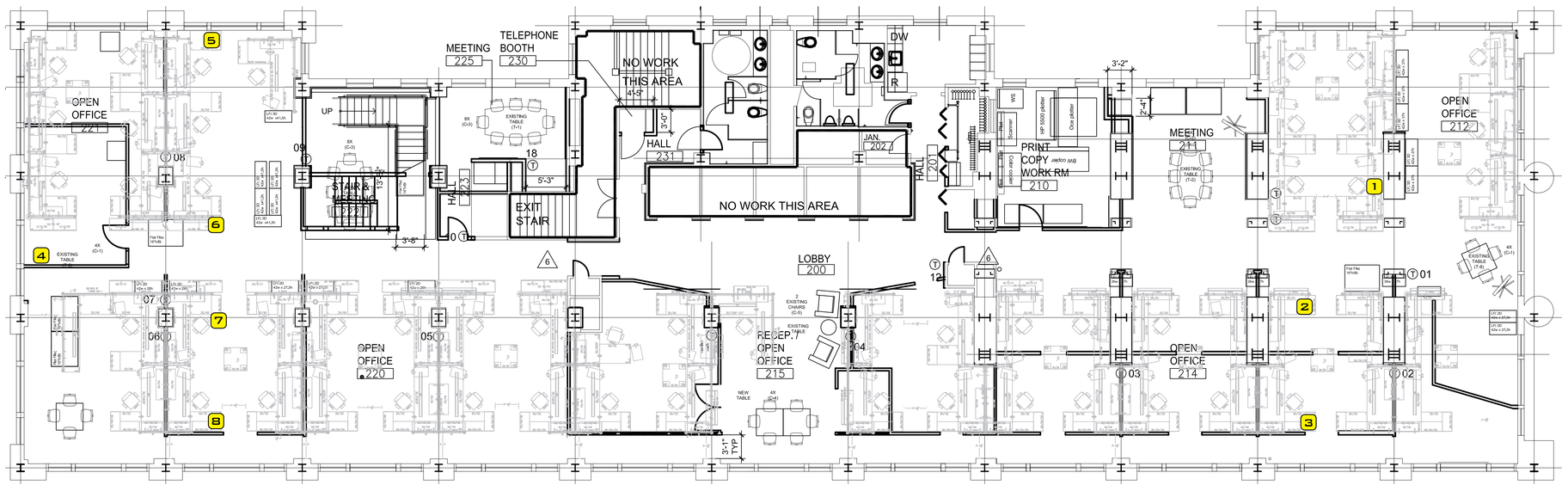
ARDUINO MICROCONTROLLER + ADAPTIVE ARCHITECTURE

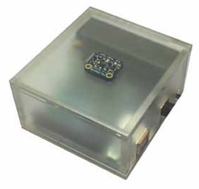
RESPONSIVE ILLUMINANCE DEVICE

```
void loop(void)
{
  /* Get a new sensor event */
  sensors_event_t event;
  tsl.getEvent(&event);

  /* Display the results (light is measured in lux) */
  if (event.light)
  {
    Serial.print(event.light); Serial.println(" lux");
  }
  else
  {
    /* If event.light = 0 lux the sensor is probably saturated
       and no reliable data could be generated! */
    Serial.println("Sensor overload");
  }

if (event.light < 300)      // set the LUX value LED will turn on at
{digitalWrite(13, HIGH);   // turn the LED on (HIGH is the voltage level)
}
else
{digitalWrite(13, LOW);   // turn the LED on (HIGH is the voltage level)
}

delay(250);
```









	ARDUINO (LUX)	MINOLTA (LUX)
1	3740	4640
2	2110	2460
3	2447	2400
4	1320	1320
4	1090	1070
4	1040	1040
4	850	850
4	810	812
5	2080	2600
6	2500	3070
7	1900	2600
8	1040	1400