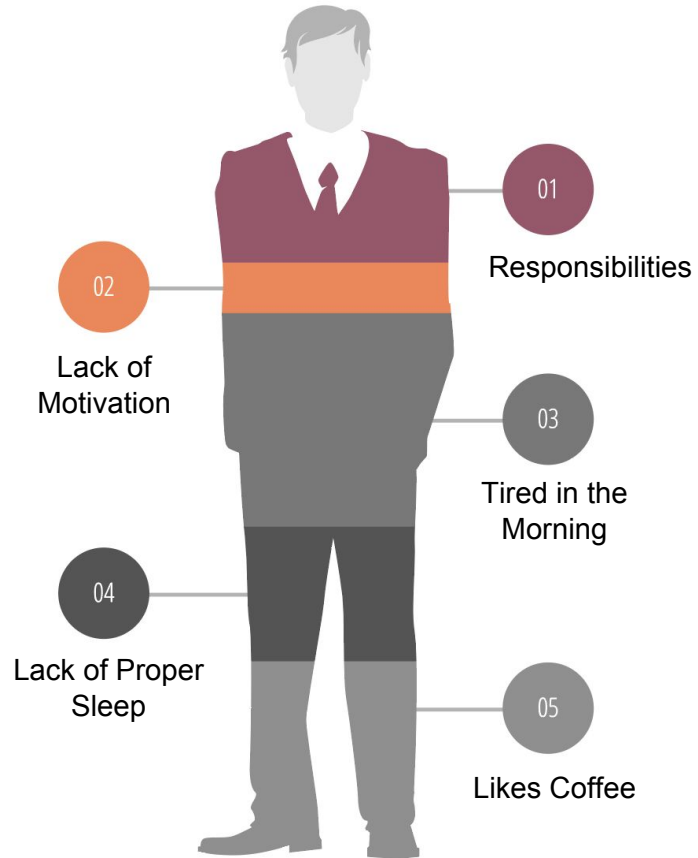


CoffeeTime

By Daniel & Shaun

Scenario:
Powe Tsao, a busy
student, has trouble
getting up in the morning.

User Profile



Our Problem Statement

Students who lack the motivation to physically get out of bed need an external stimulus so that they can meet their responsibilities.

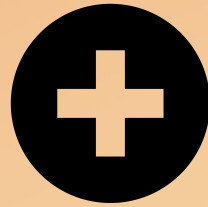


01

02

03

Our Solution





Demonstration

Our Process






Research

Others vs Our Product

Prototyping

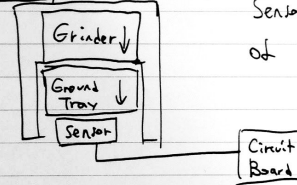
Step 1

Part 1 Grinder

Classic-1	Classic-2	Modern-1
		
horizontal grinding	vertical grinding	horizontal grinding

This is purely visual.
However, this may affect affordability. The ~~classic~~ ~~modern~~ style grinders may have more efficient blades, but may cost more.

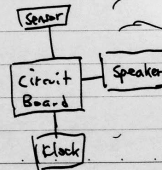
Part 2 Ground Tray



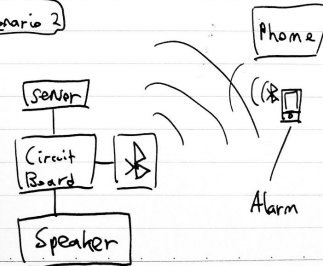
Sensor would probably have a range of 0 ~ 100 grams.

Part 3 Alarm System

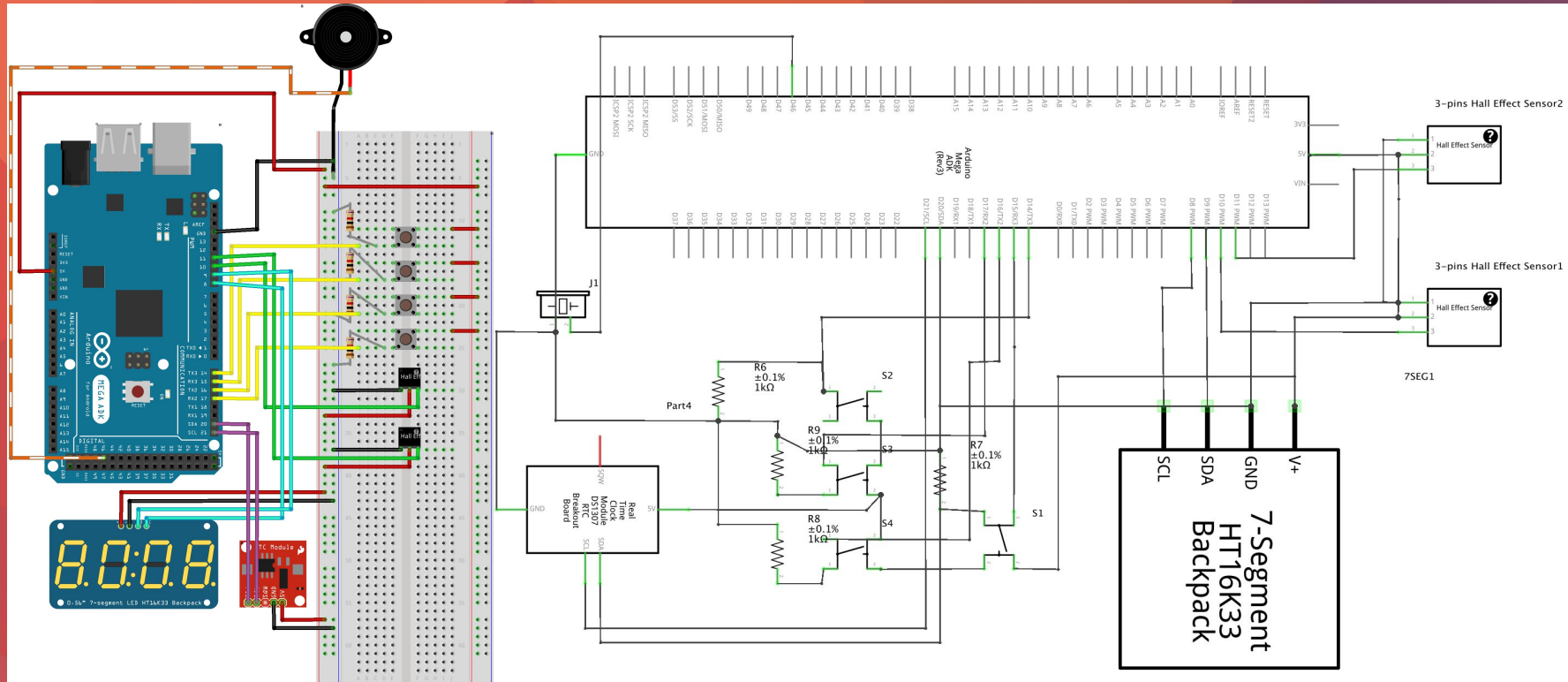
Scenario 1



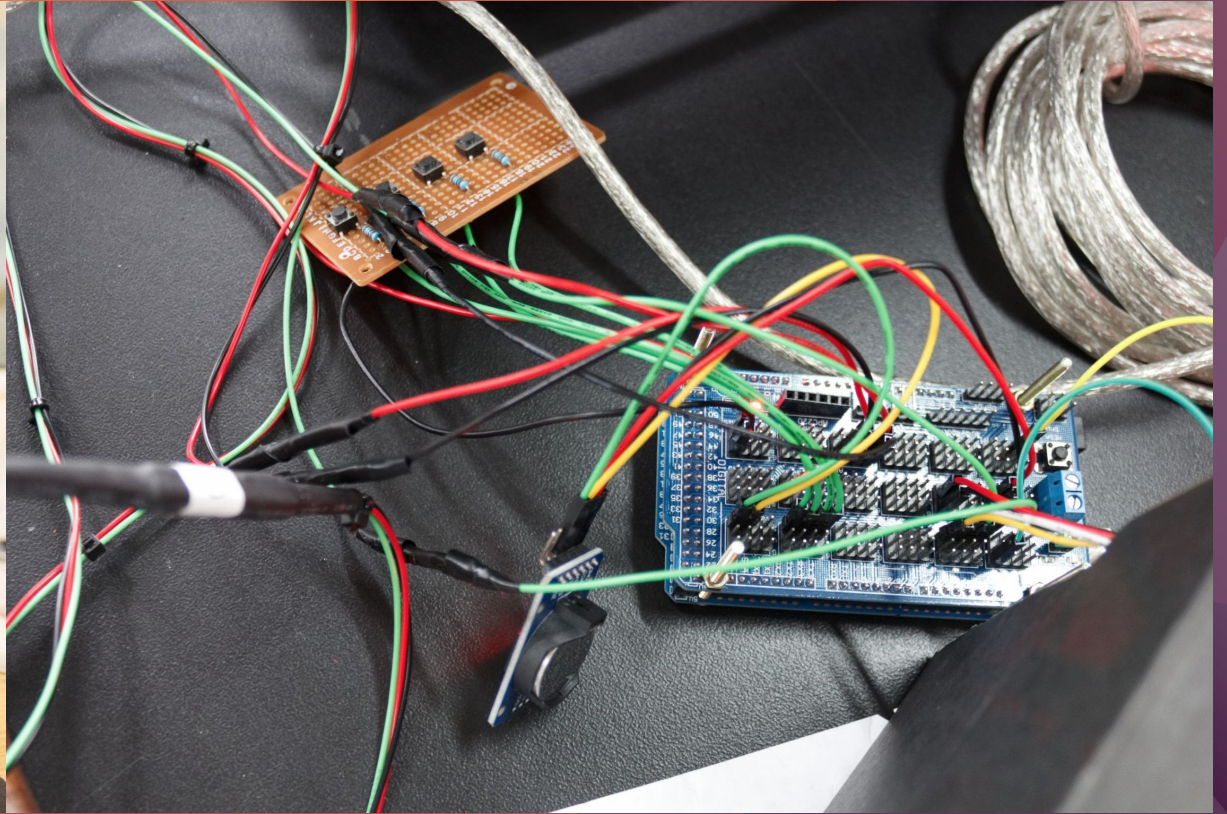
Scenario 2



Step 2



Step 3



Step 4

```
else if(set == 2){
  if(pin15 == HIGH){
    a += 1;
    if((a%100) >= 60){
      a += 40;
    }
    //display.showNumberDec(a, true);
  }
  else if(pin16 == HIGH){
    a -= 1;
    if((a%100) >= 60){
      a -= 40;
    }
    //display.showNumberDec(a, true);
  }
  display.showNumberDec(a, true);
}
else if(set == 0){
  DateTime now = rtc.now();
  t = now.hour() * 100 + now.minute();
  display.showNumberDec(t, true);
  if (a == t){
    // Set up a counter to pull from melody[] and beats[]
    for (int i=0; i<MAX_COUNT; i++) {
      tone_ = melody[i];
      beat = beats[i];
```

```
void loop() {

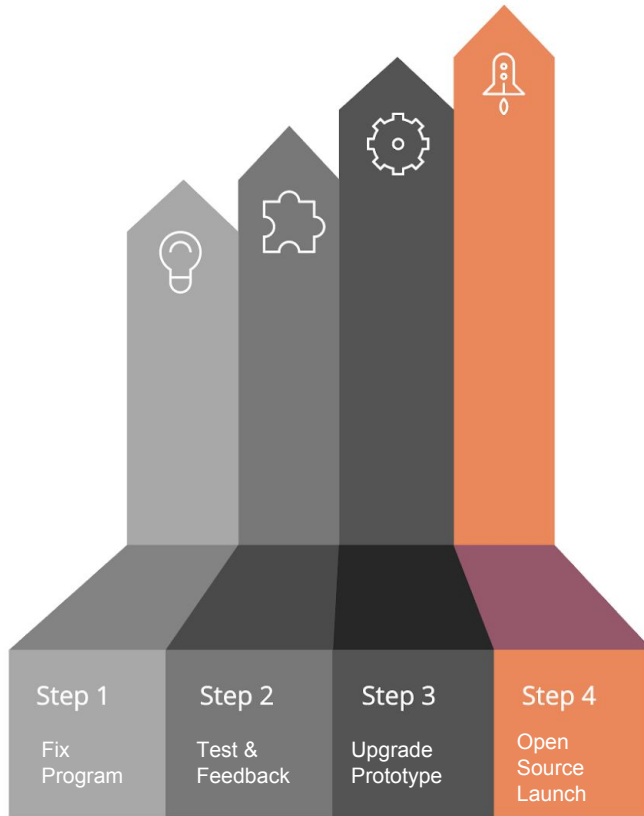
  pin10 = digitalRead(sensor1), pin11 = digi

  if(pin14 == HIGH){
    if(set == 1){
      set = 2;
    }
    else if(set == 2){
      set = 0;
    }
    else if(set == 0){
      set = 1;
    }
  }
  else if(pin14 == LOW){
    if(set == 1){
      if(pin15 == HIGH){
        a += 100;
        if(a >= 2500){
          a -= 2400;
        }
        //display.showNumberDec(a, true);
      }
    }
    else if(pin16 == HIGH){
      a -= 100;
      if(a < 100){
        a += 2400;
```

```
else if(set == 0){
  DateTime now = rtc.now();
  t = now.hour() * 100 + now.minute();
  display.showNumberDec(t, true);
  if (a == t){
    // Set up a counter to pull from melody[] and beats[]
    for (int i=0; i<MAX_COUNT; i++) {
      tone_ = melody[i];
      beat = beats[i];

      duration = beat * tempo; // Set up timing

      playTone();
      // A pause between notes...
      delayMicroseconds(pause);
    }
  }
}
```



Future Plans



Ask Us
Anything