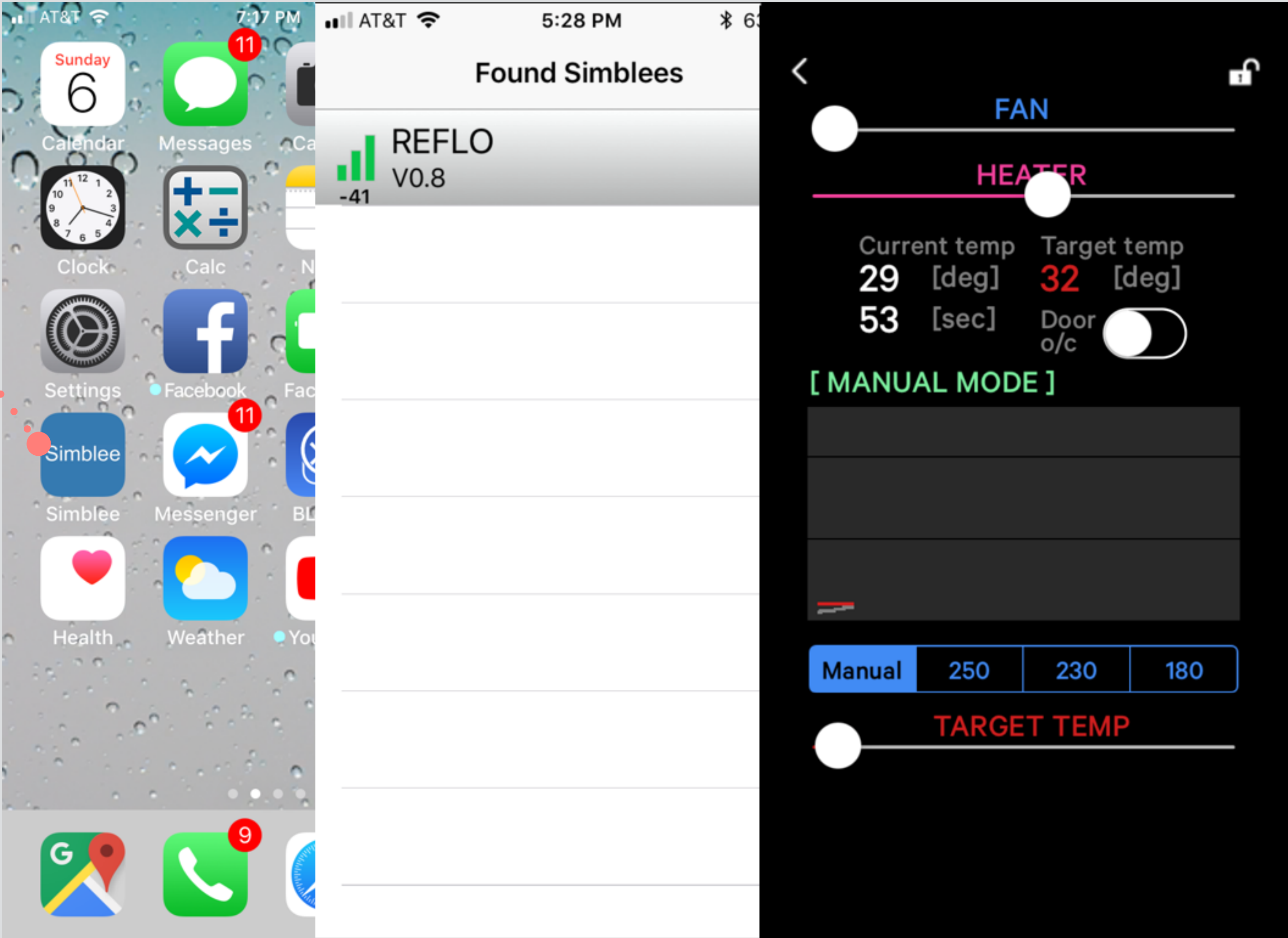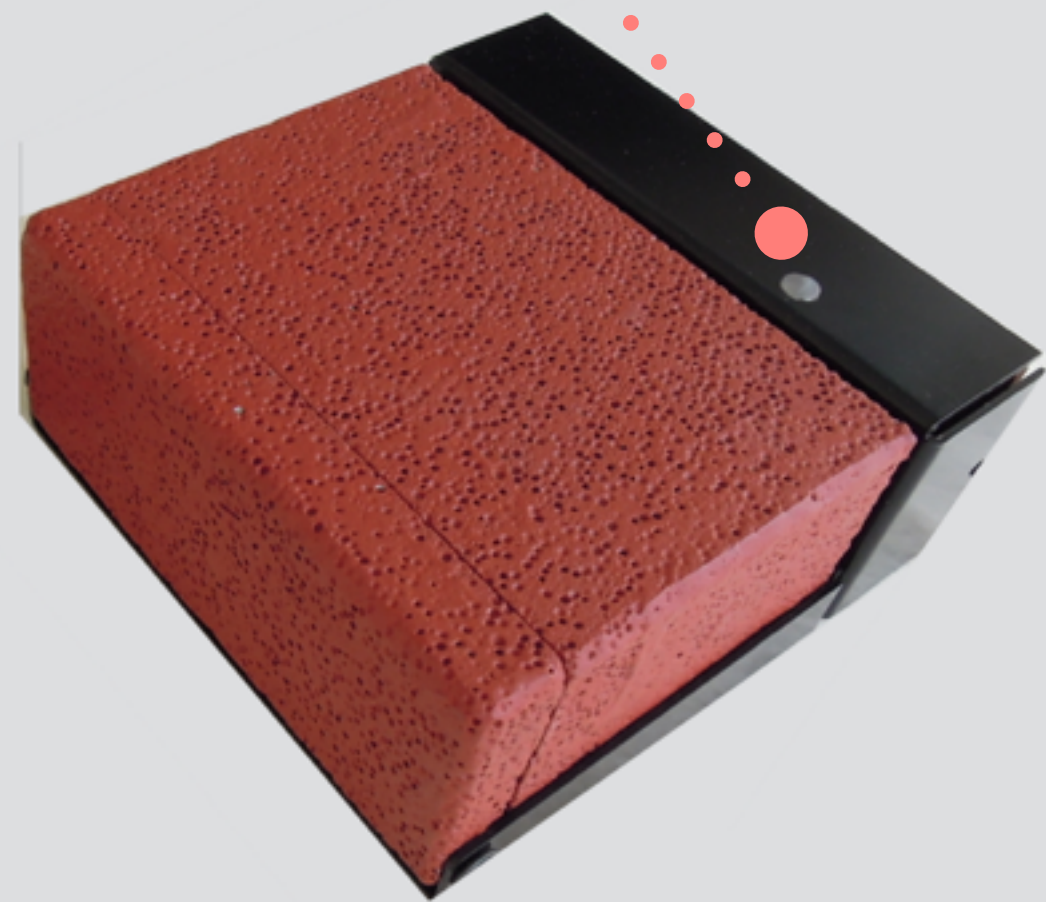# Starting Application

LED indicator
Red:Heater ON
Blue:FAN ON

Application
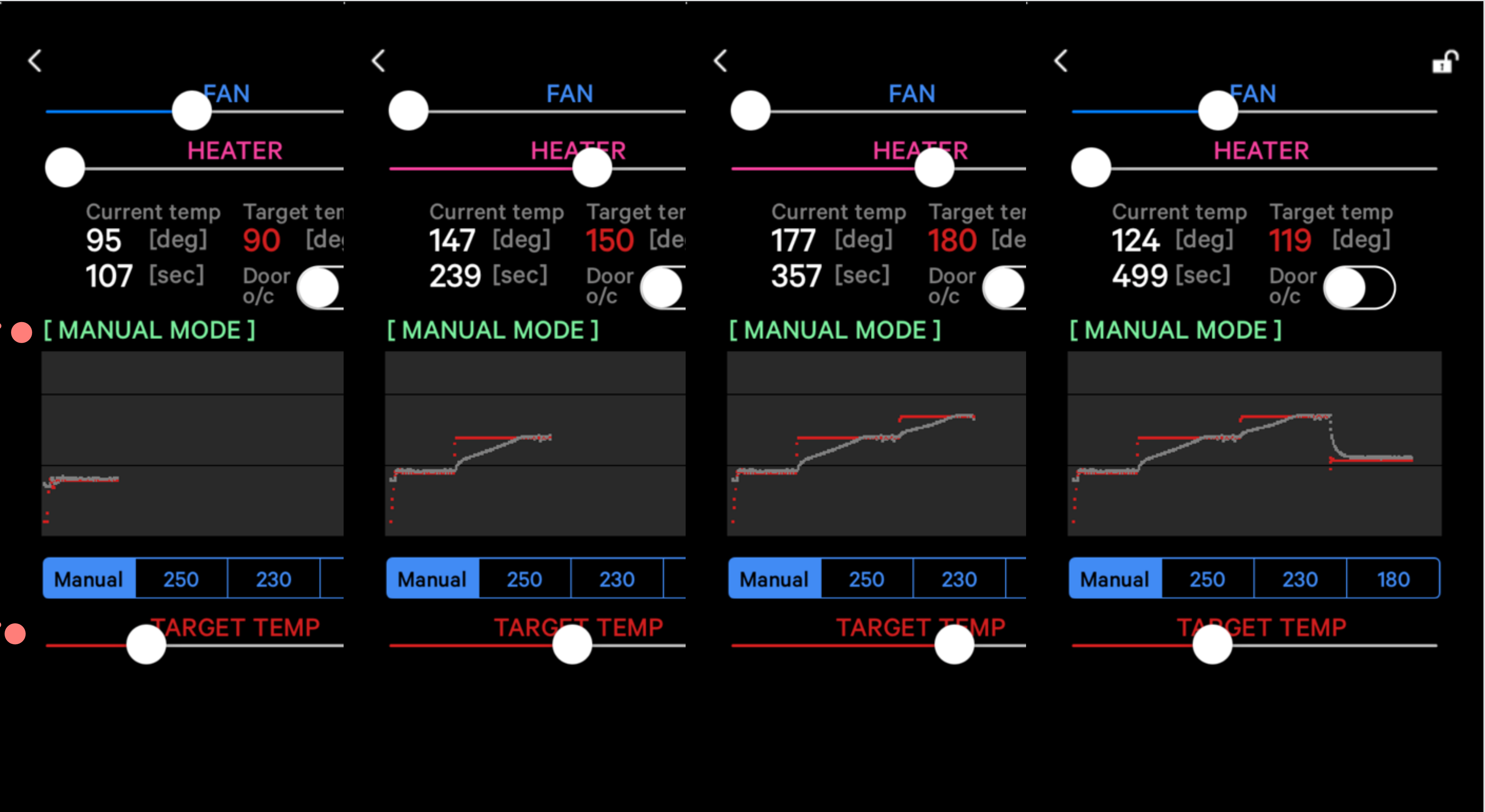Icon

*After power is turned on, the heater is driven to stabilize at around 30 degrees.

Manual Mode

*You can set it to any temperature with the temperature setting slider.
The heater and fan automatically adjust the temperature.

Mode
Display

Temperature
setting slider

Set to 90 degrees
by slider

Set to 150 degrees
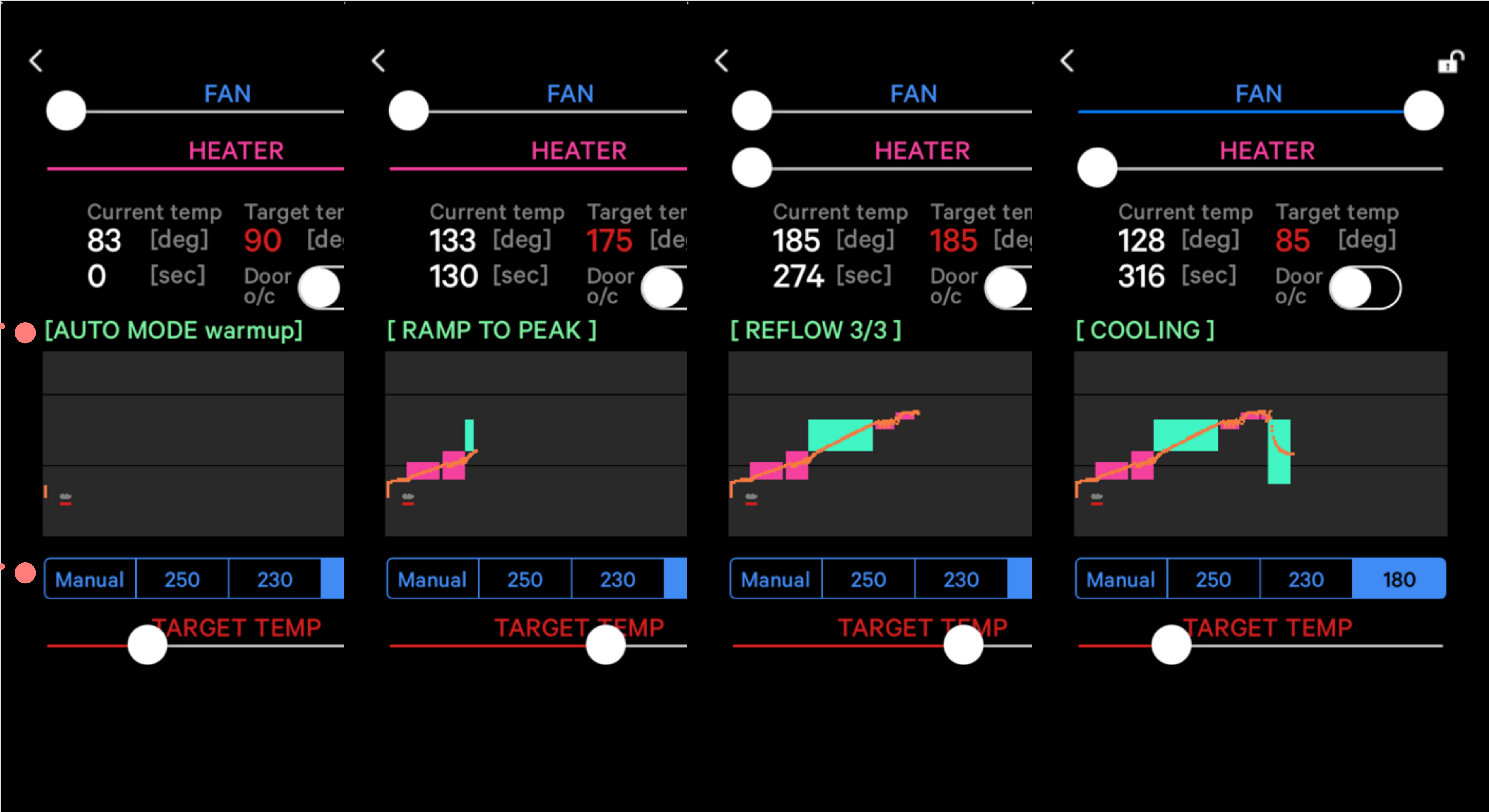by slider

Set to 180 degrees
by slider

Set to 119 degrees
by slider

Auto Mode

*Three kinds of temperature profile of 180/230/250 degrees are selected, and heater and fan can work together to automatically execute temperature profile.
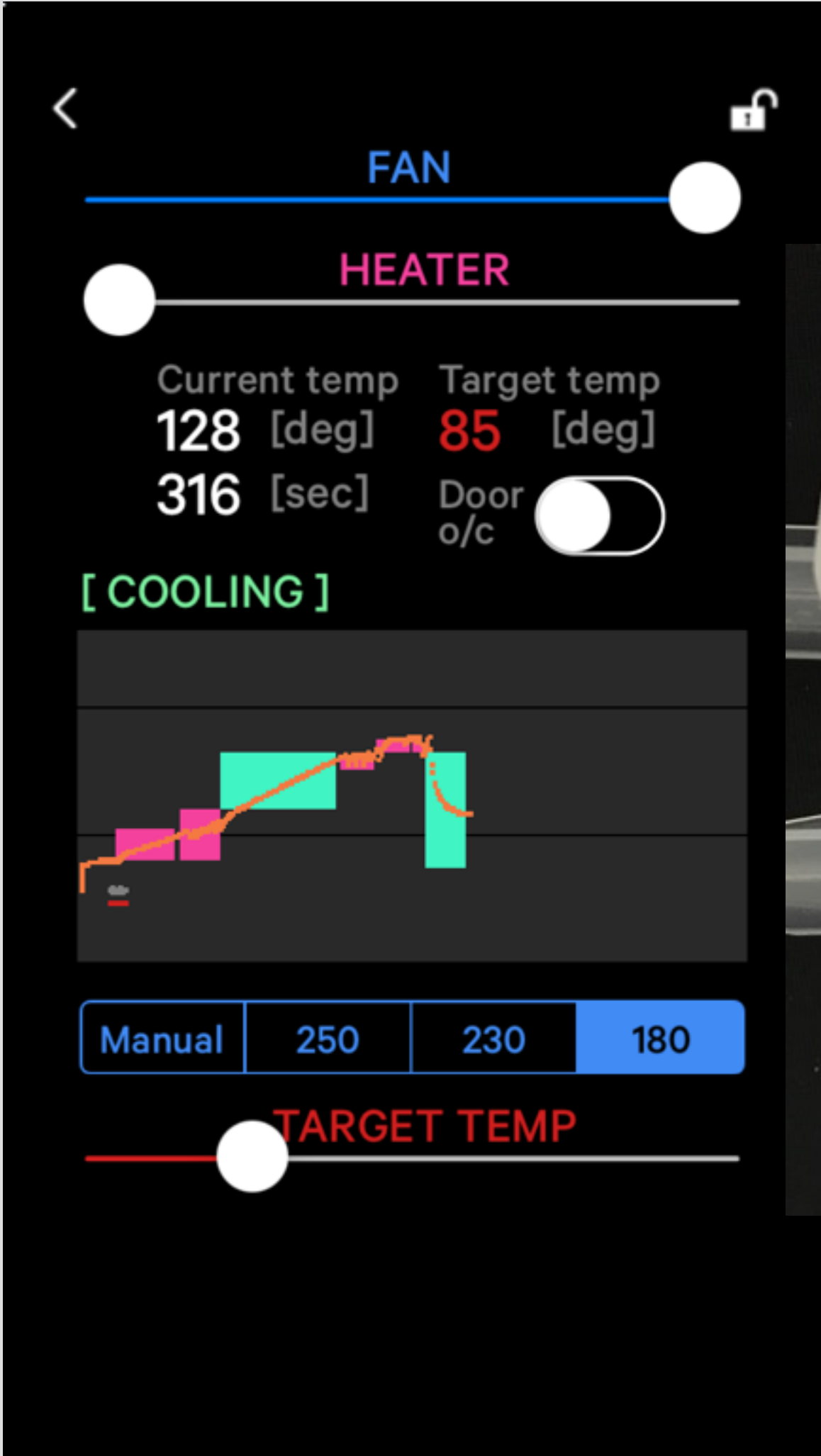
Mode Display

Temperature profile selector

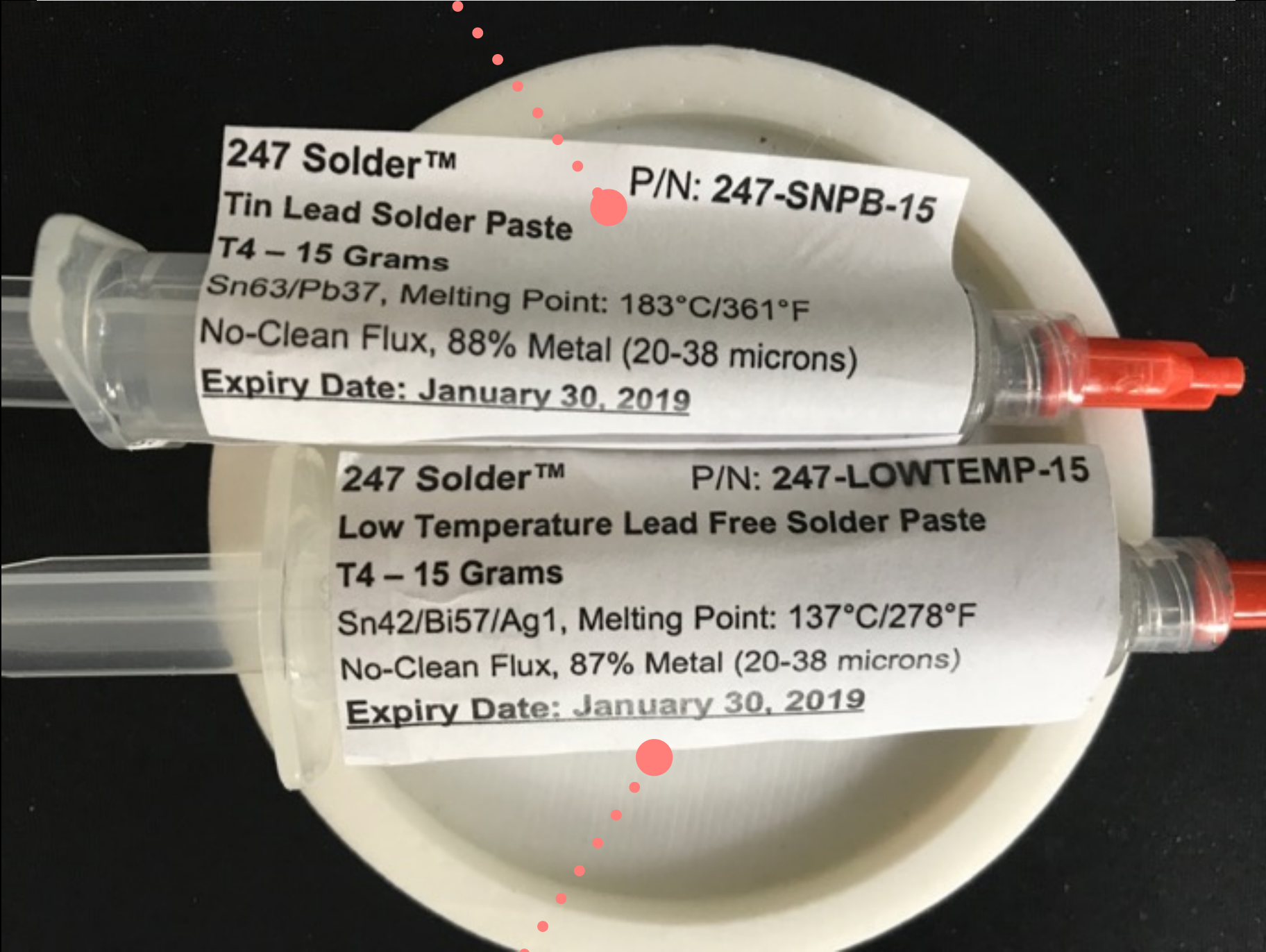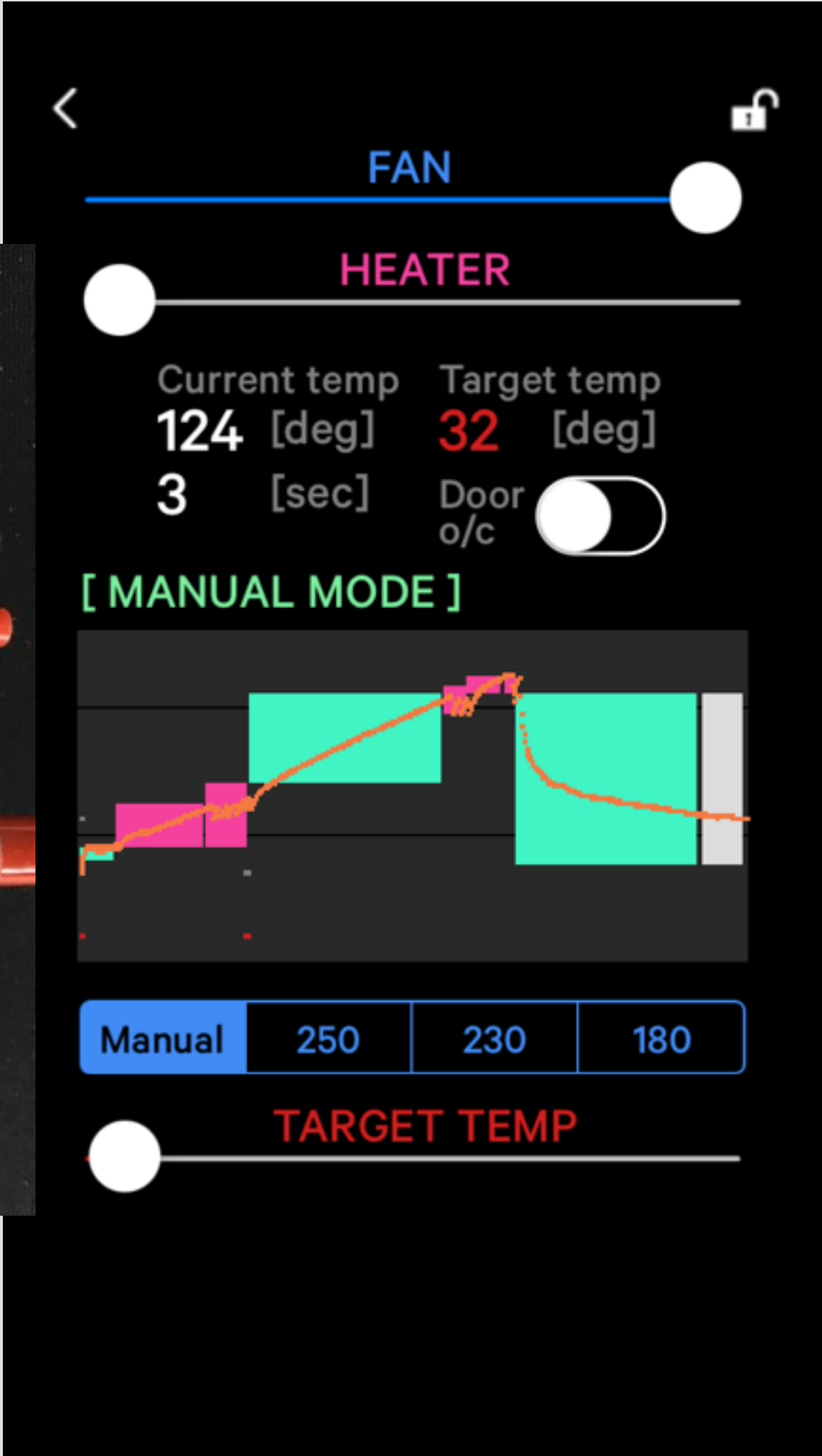| Warmup | Ramp to Peak after Soak stage | Reflow stage | Cooling down stage |

Solder and Profile

*As an example, if you select the following two types of solder and profile on each side of the board, you can solder the double sided board. Perform one side at 230 degrees, flip it over and run the opposite side at 180 degrees.

230 (peak) degree profile is good for 183 degree melting Point solder

Left device screen

FAN

HEATER

Current temp: **128** [deg] Target temp: **85** [deg]

316 [sec] Door o/c

[COOLING]

| Manual | 250 | 230 | 180 |

TARGET TEMP

Center photo labels

247 Solder™   P/N: 247-SNPB-15
Tin Lead Solder Paste
T4 – 15 Grams
Sn63/Pb37, Melting Point: 183°C/361°F
No-Clean Flux, 88% Metal (20-38 microns)
Expiry Date: January 30, 2019

247 Solder™   P/N: 247-LOWTEMP-15
Low Temperature Lead Free Solder Paste
T4 – 15 Grams
Sn42/Bi57/Ag1, Melting Point: 137°C/278°F
No-Clean Flux, 87% Metal (20-38 microns)
Expiry Date: January 30, 2019

Right device screen

FAN

HEATER

Current temp: **124** [deg] Target temp: **32** [deg]

3 [sec] Door o/c

[MANUAL MODE]

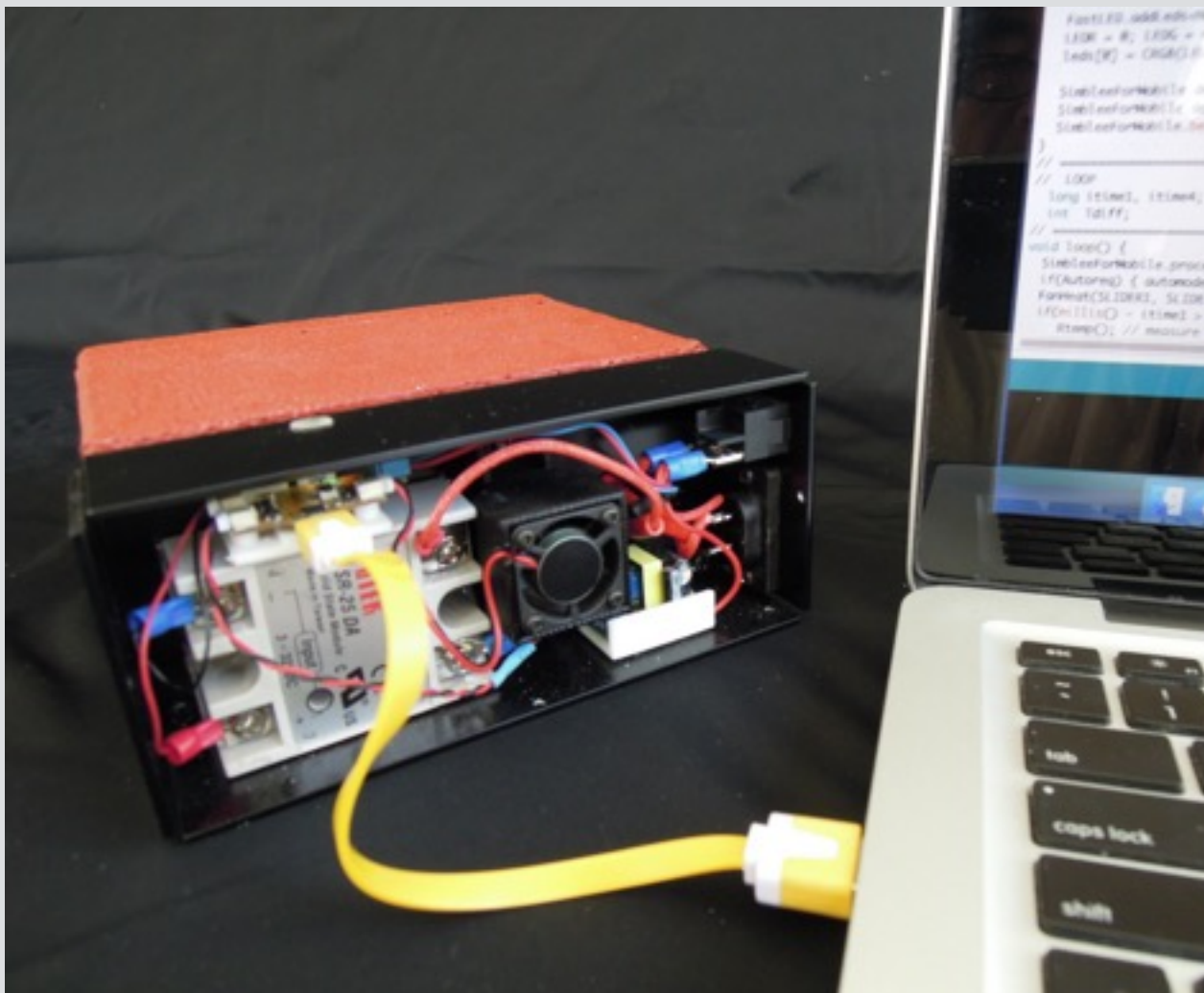| Manual | 250 | 230 | 180 |

TARGET TEMP

180 (peak) degree profile is good for 137 degree melting Point solder

Modify Program

*You can modify the program using Arduino IDE. For example, by changing the table shown in the figure, you can change the temperature profile, interval of each stage, etc.

```
63        "[ COOLING ]",            // 8:cooldown
64        "[ OPEN ]"                // 9:door open
65      };
66      int Stable[12]; // Time(in Second) table
67      int Ttable[12]; // TEMP table
68      int Ftable[12]; // FAN control table
69      //                                        5    6    7
70      //                                   4
71      //                         2    3                   8    9
72      //                    1
73      //               0
74      int Stable1[] = {  2,  30,  35,  35,  50,  30,  30,  10, 150, 200 };  // Time(in Second) table
75      int Ttable1[] = { 90, 150, 180, 195, 230, 240, 250, 240,  85,  85 };  // TEMP table 217 melting point
76      int Ftable1[] = {  0,   0,   0,  20,   0,  20,   0,  20,   0,   0 };  // FAN control table
77
78      int Stable2[] = {  2,  30,  35,  35,  35,  20,  30,  10, 150, 200 };  // Time(in Second) table
79      int Ttable2[] = { 90, 100, 135, 150, 220, 235, 235, 235,  85,  85 };  // TEMP table 183 melting point
80      int Ftable2[] = {  0,   0,   0,  20,   0,  20,   0,  20,   0,   0 };  // FAN control table
81
82      int Stable3[] = {  2,  30,  35,  35,  25,  30,  30,  10, 150, 200 };  // Time(in Second) table
83      int Ttable3[] = { 90,  90, 115, 130, 175, 180, 185, 185,  85,  85 };  // TEMP table 137 melting point
84      int Ftable3[] = {  0,   0,   0,  20,   0,  20,   0,  20,   0,   0 };  // FAN control table
85
86
```