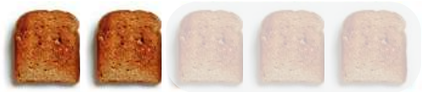
ERGONOMIC RATING:

Main toaster handle is tedious to operate using the method in fig (i). The more intuative way oulined in fig (ii) causes the light chassis to raise and potentially flip.

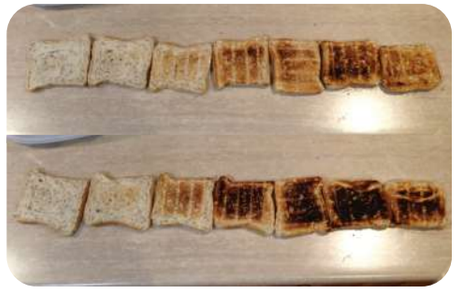
Toaster function buttons are cumbersome to operate using the method in fig (i). The more intuative way oulined in fig (ii) causes the light chassis to dart across the bench top, a shrap 'jab' was required to operate the buttons with one

Browning selection knob not comfortable to operate, also does not allows adjusting of browning in defined incriments, thus producing widley varied toasting times due to sensitive variable resistor.

FUNCTION RATING:



Linear cooking range does not match the manner in which toast cooks, evident here by the large jump seen in browning. The bread has a distinct jump from underdone to overdone. User should be allowed finner adjustments inbetween these two extremes.



Here are the same toasts pictured from both sides. It is clear that one side has cooked much quicker than the other, a problem due to the two inner elements being in close vicinity to each other. Always cooking the side of the toast facing the inside of the toaster.

RATING OUT OF FIVE

user analysis

RELIABILITY RATING:

Toasters are required to toast a wide variety of breads, these breads all cook differently due to factors such as sugar & moisture content and the presence of additives such as dried fruits, seeds and nuts.

The user will gain experience over time as to what level of browning will be required for each type of bread.

HOWEVER!

The user stands little chance of mastering this if their toaster fails to deliver consistent cooking times, on the same setting!

LEVEL	TIME	DEFROST	REHEAT
1	33-36	+5	-5
2	1:04-1:06	+10	-10
3	1:30-1:36	+15	-15
4	1:59-2:02	+20	-20
5	2:24-2:31	+25	-25
6	2:44-2:50	+30	-30
7	2:45-3:00	+35	-35

SAFETY RATING:

Two measures are in place to keep the 3 core power cord from becoming dislodged from the internals and creating a hazard. This one, a small plastic loop, takes the brunt of the punishment dished out during normal wear and tear. The other os located inside the toaster.

The other feature is a grounded vvinternal chassis. A tightly secured earthtag keeps almost all of the internal components grounded, bar the elemts. Including this polished grill, which is often touched by the user in operation.

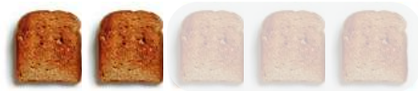
AESTHETICS RATING:

Considering its price, this toaster is an attractive applicance. It's compact and simple. The plastic shell has avoided becoming boring thanks to the central flowing line. The stainless steel grill is also a sharp addition (not pictured)

Layout of controls are logical and orderly. The LED's clearly communicate the function that has been selected. Browning knob could do a better job at indicating its selected browning value. The recessed line does not stand out enough.

The exhaust vents, cord organiser, bread tray, compliance sticker and screw heads are all hidden away beneath the toaster. This is the reason why the toaster presents so neatly.

EFFICIENCY RATING:



Generally, the toaster is moderately efficient. It performes all of its functions to an average standard, and over time, the customer will learn to negate its shortcoming with experience of use.

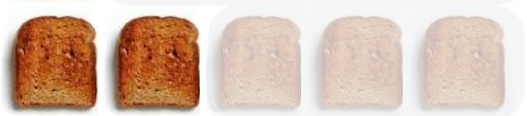
In terms of efficient cooking, the toaster really falls short. Burnt toast is often the result if the browning control is not carefull set before dropping the bread in, not to mention the lack of consistency in cooking times.

user analysis

SUMMARY

ERGONOMIC RATING:

FUNCTION RATING:

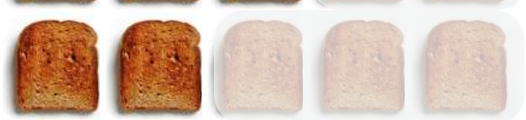


RELIABILITY RATING:

SAFETY RATING:

AESTHETICS RATING:

EFFICIENCY RATING:



AVERAGE USER RATING:

46%

aesthetics

two stylistic directions have been explored for the bachelor toaster; firstly an aggressive, futuristic and angular approach, while the other direction was simplistic, minimal and function driven. the design is streamline and lays flat against a surface whilst possessing a large geometric form, and two neon lights have been incorporated primarily as an aesthetic component which attracts the target market. the sleek and functional concept designs have been merged with the futuristic aggresive concept designs to create an intersting, advanced, roller toaster design

functions

by researching toasters we have learnt that toasting is the delicate balance of drying and cooking. there is a range of humidity that needs to be maintained in order for the bread to cook in an appropriate time frame. the toasting system operates by making bread travel via a conveyor belt which has adjustable, thus controlable speed, whilst heating elements above and below the bread, toast it. the intensity of the individual heating elements can be controlled via dials on the top surface. small vent cut outs, and short leg supors raise the toaster from the surface, hence both combine to allow a desired amount of heat to escape efficiently

safety standards

toasters rely on radiant heat, best emitted from live unshielded wire. potentially causing an electrical hazard if not designed correctly. tamper proof hardware, is the first step to ensure the product stays in original operating condition (this does effect design for disassembly considerations). insulating the element from other metal parts, then earthling those parts is a double measure taken to prevent shocks. the power cable extrudes from the toasters right side, rather than the bottom, to avoid bending and tearing of wire cable

manufacture process

common manufacturing processes will be used to keep the costs down, metal press; injection moulding and circuit board printing all provide a relatively low cost per unit.

materials and finishes

the bachelor toaster is aiming for a narrow market, this correlates directly to the range of materials that appeal to the client. smooth polished steel contrasted with gloss black plastics for the main body. rubber grips are likely to be used for the legs to reduce sliding movement of the toaster

cost

keeping the manufacture and assembly cost very low will be imperative since the functions of the toaster require display screens, control dials, control buttons and high quality, long lasting, wire heating elements and a conveyor belt. due to this niche appeal, the bachelor toaster will most likely be batch produced, and sold at a cost which is aimed for individuals in a low-middle tohigh socio economic class

design considerations

profile board

name: randolf

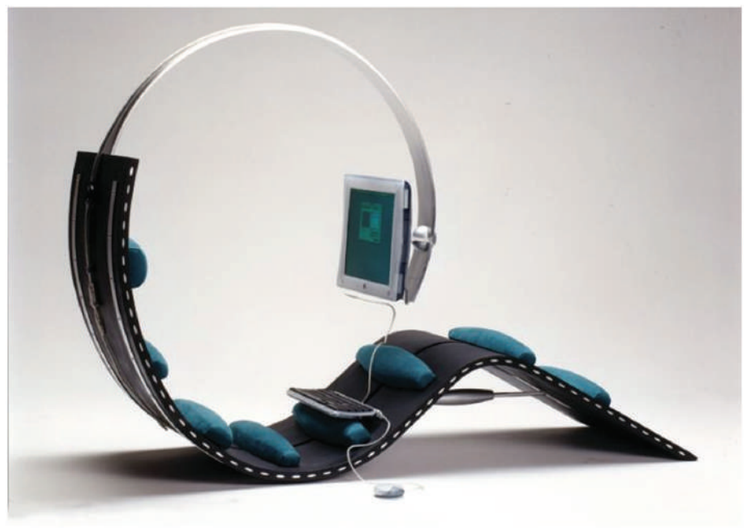
gender:
male

age:
 27 (mid twenties)

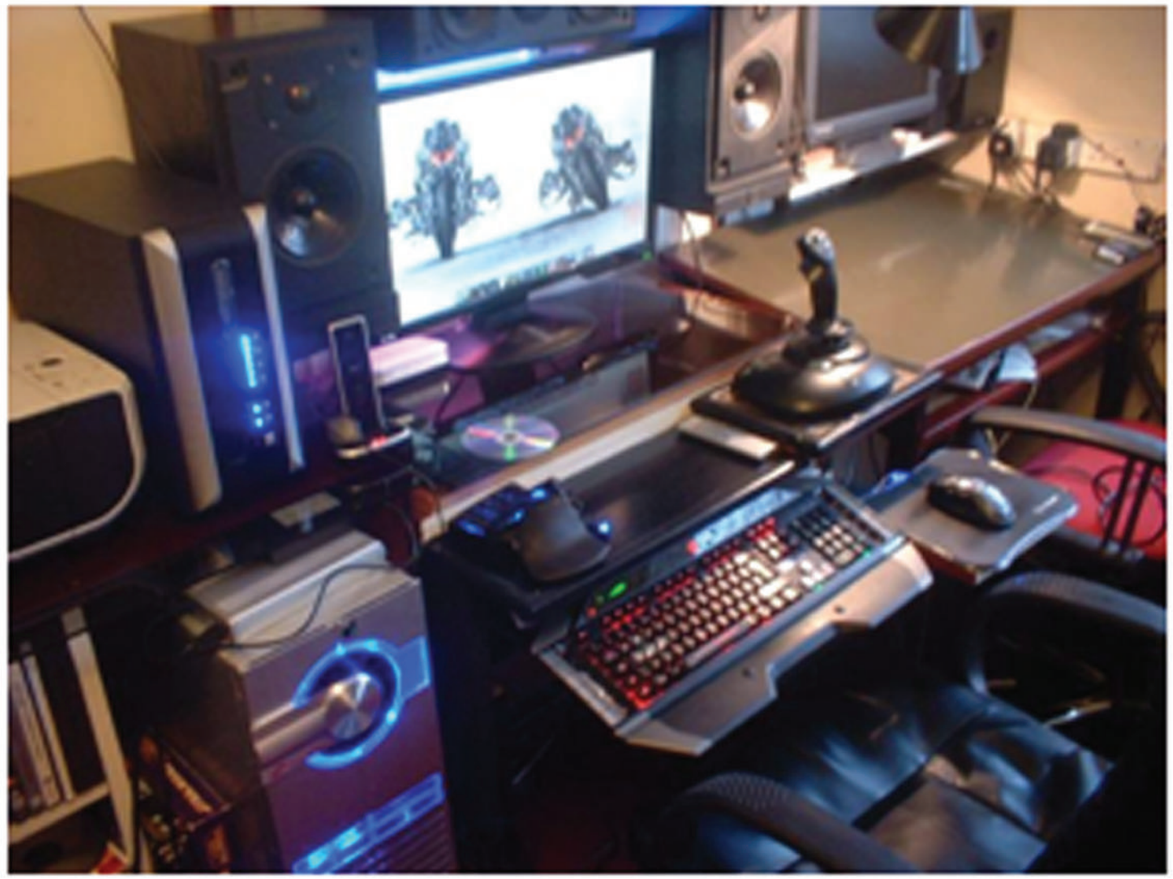
occupation:
possibly something in i.t or game designer

randolph is likely an upper middle class male, probably aged in his 20s. he lives with his parents, which suggests that he doesn't require much finances for someone his age as his parents likely supply him with the necessities of life (food, clothing etc).

he values his family, especially his mother who does everything for him, making him feel comfortable and secure with his non-sociable life

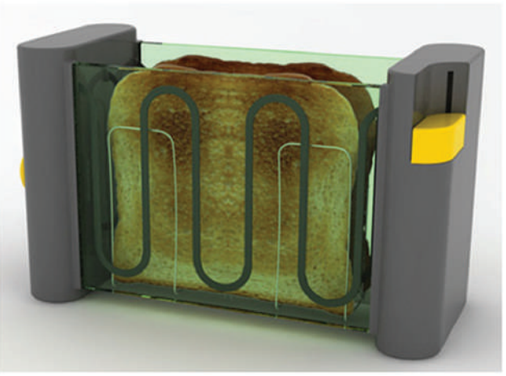


profile board




CALL OF DUTY
MW3


StarCraft II



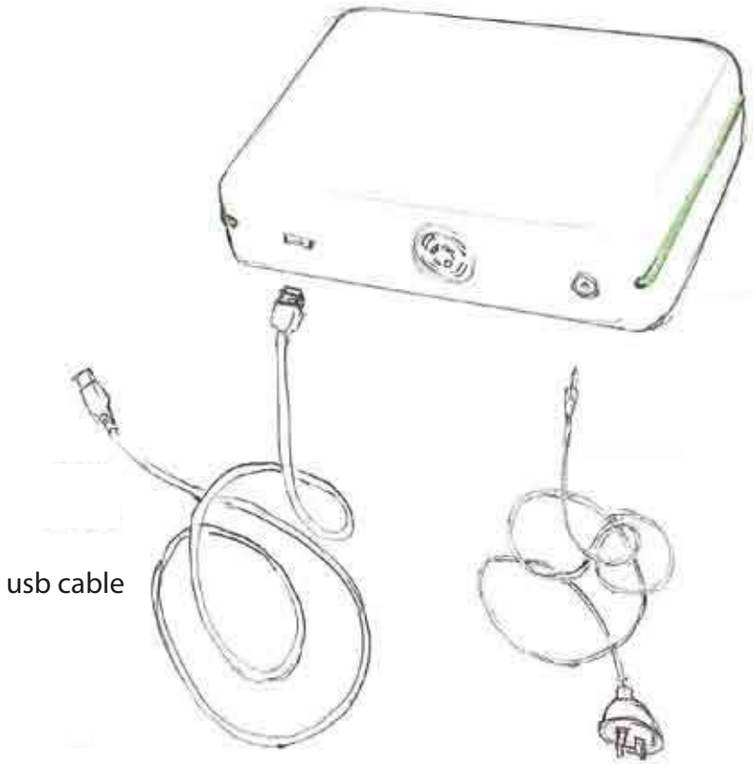

StarCraft II


PS3
SONY


STAR WARS

style board

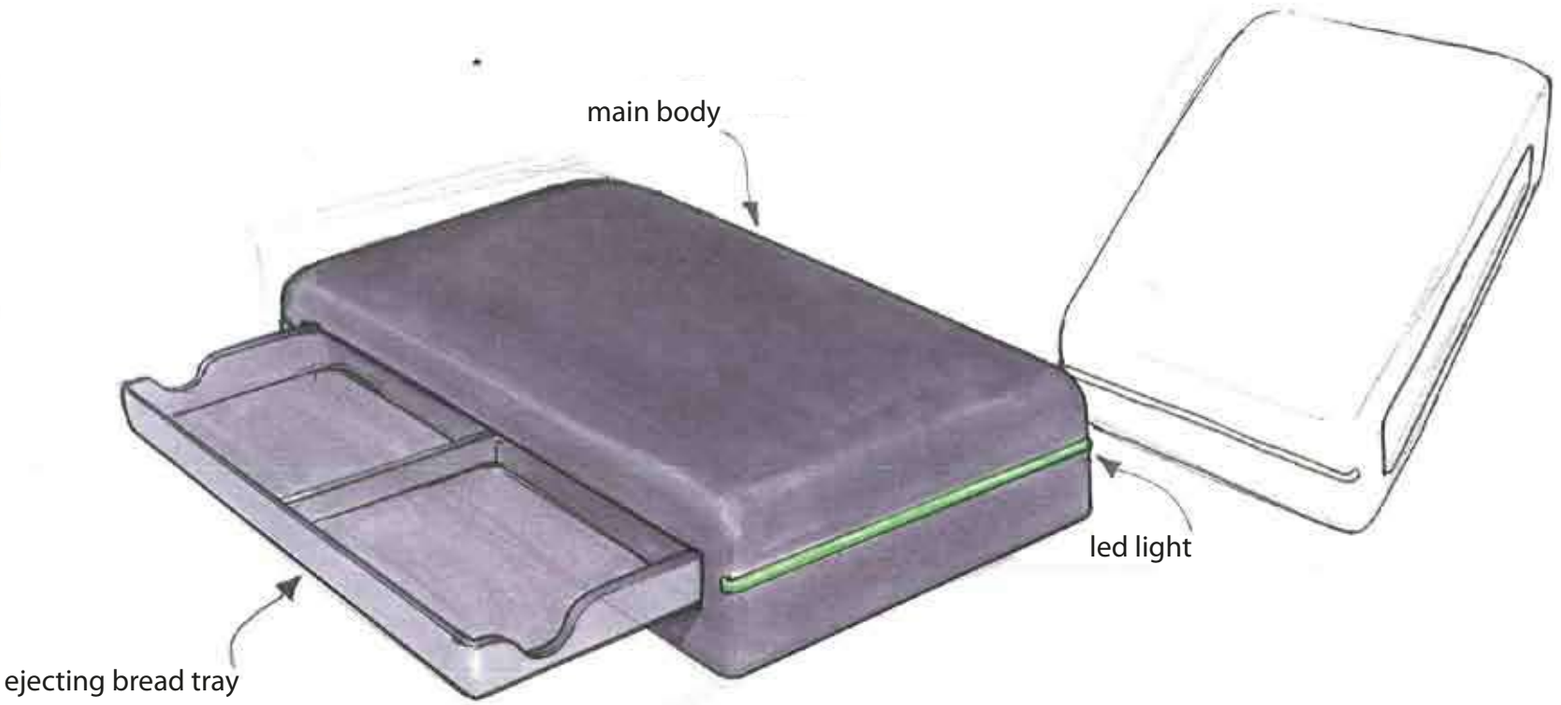
style board

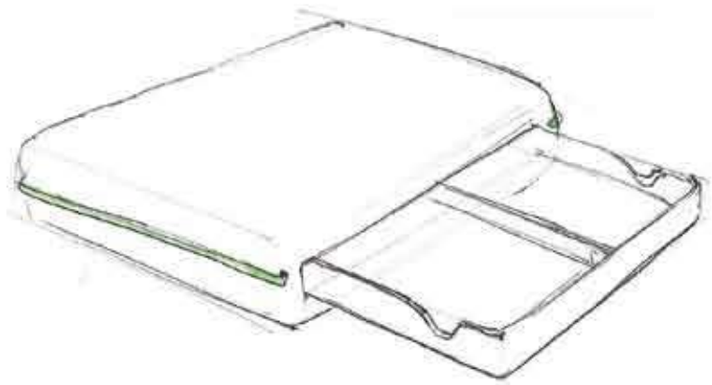


usb cable

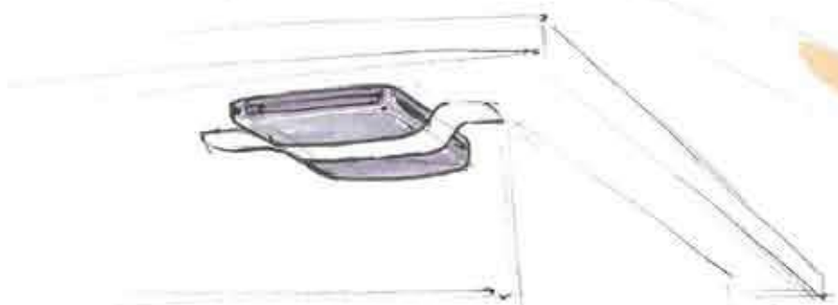
can be powered via computer

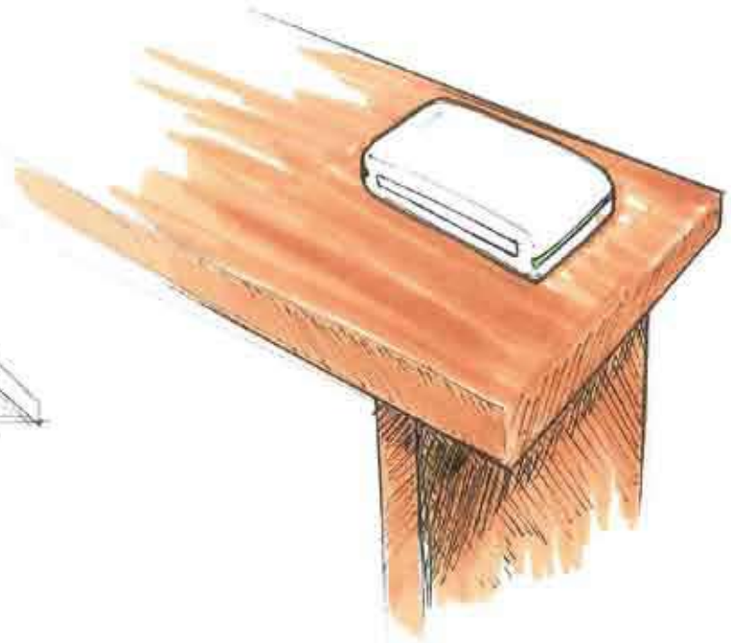
power point plug



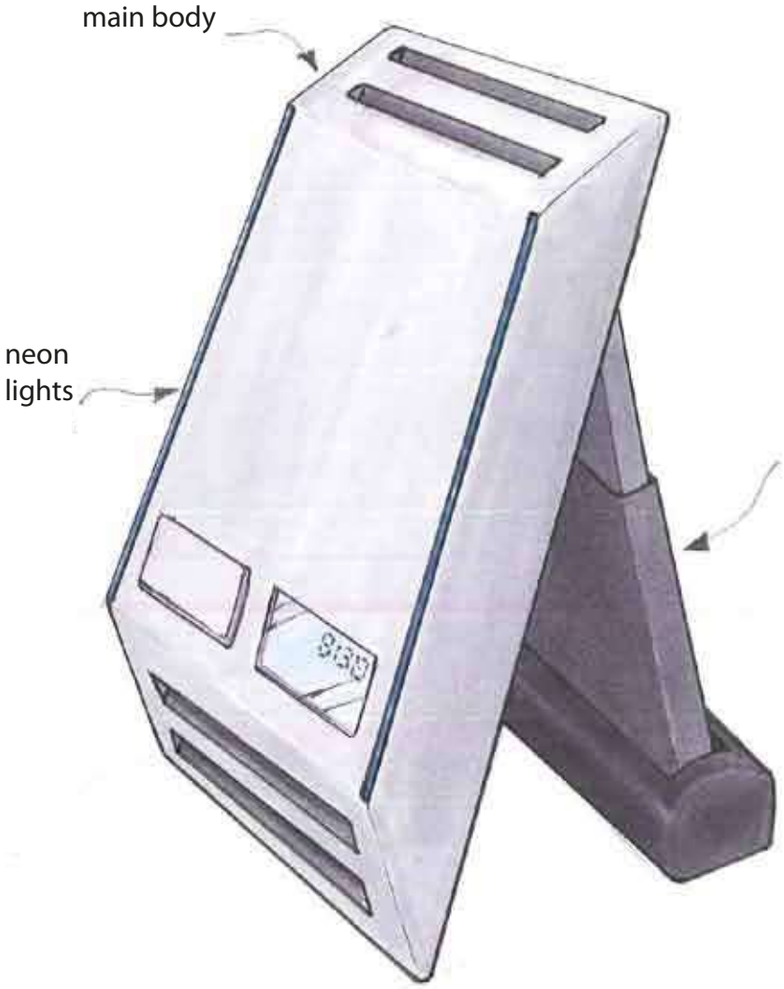


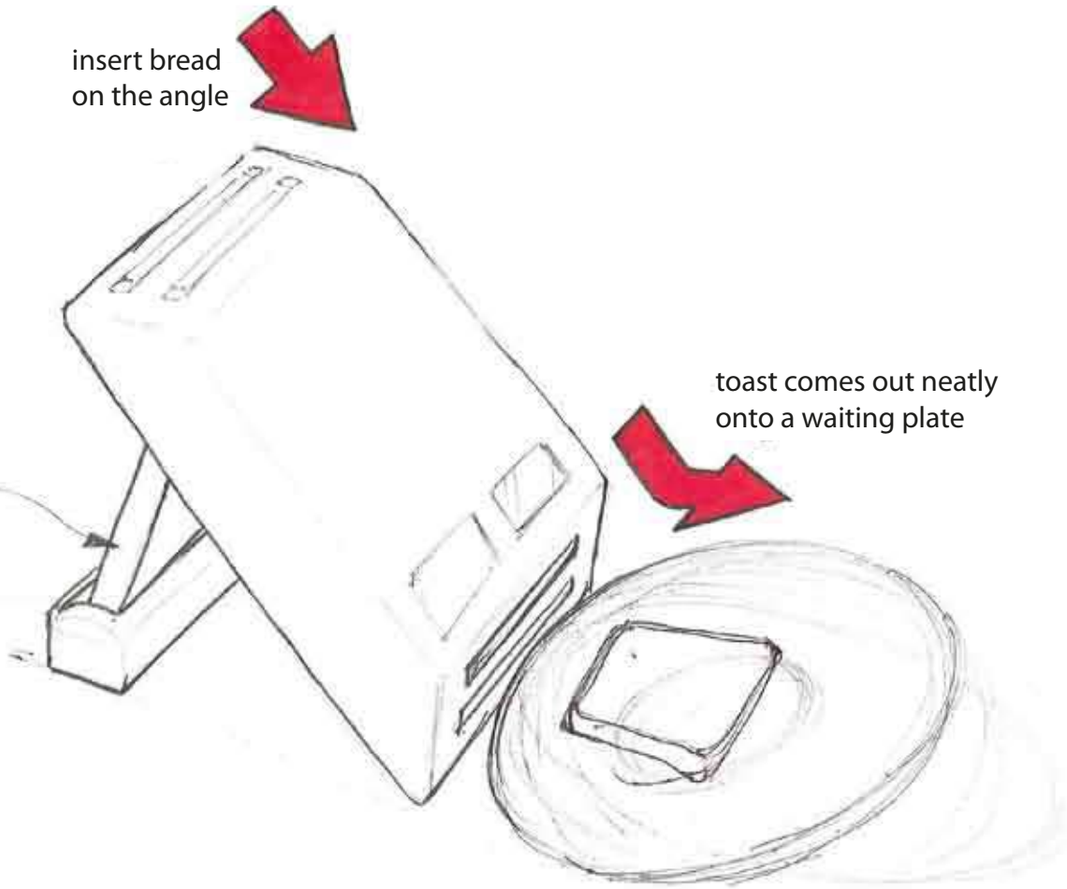
can be positioned above or below
workstation. operation via computer

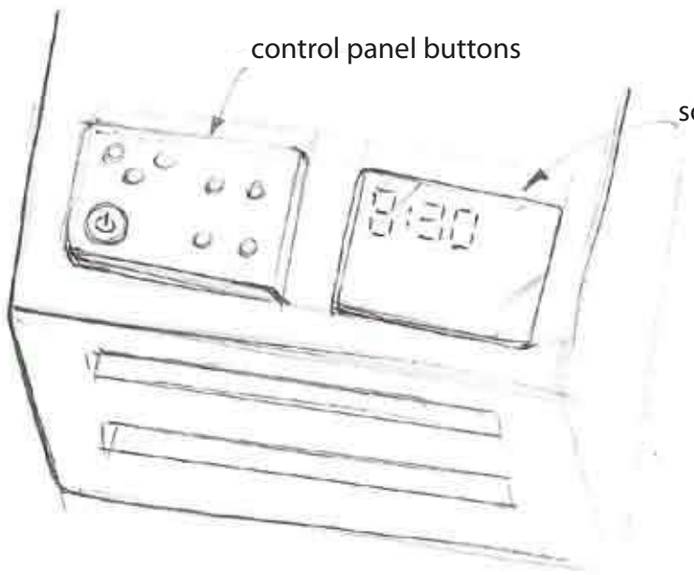




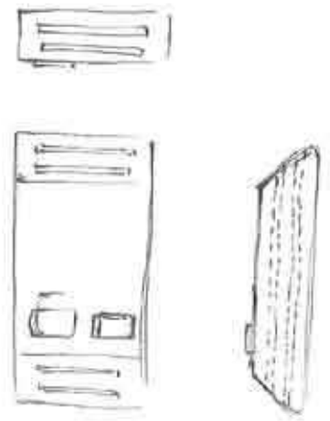
concept 2


main body
neon lights
adjustable back frame


insert bread on the angle
toast comes out neatly onto a waiting plate

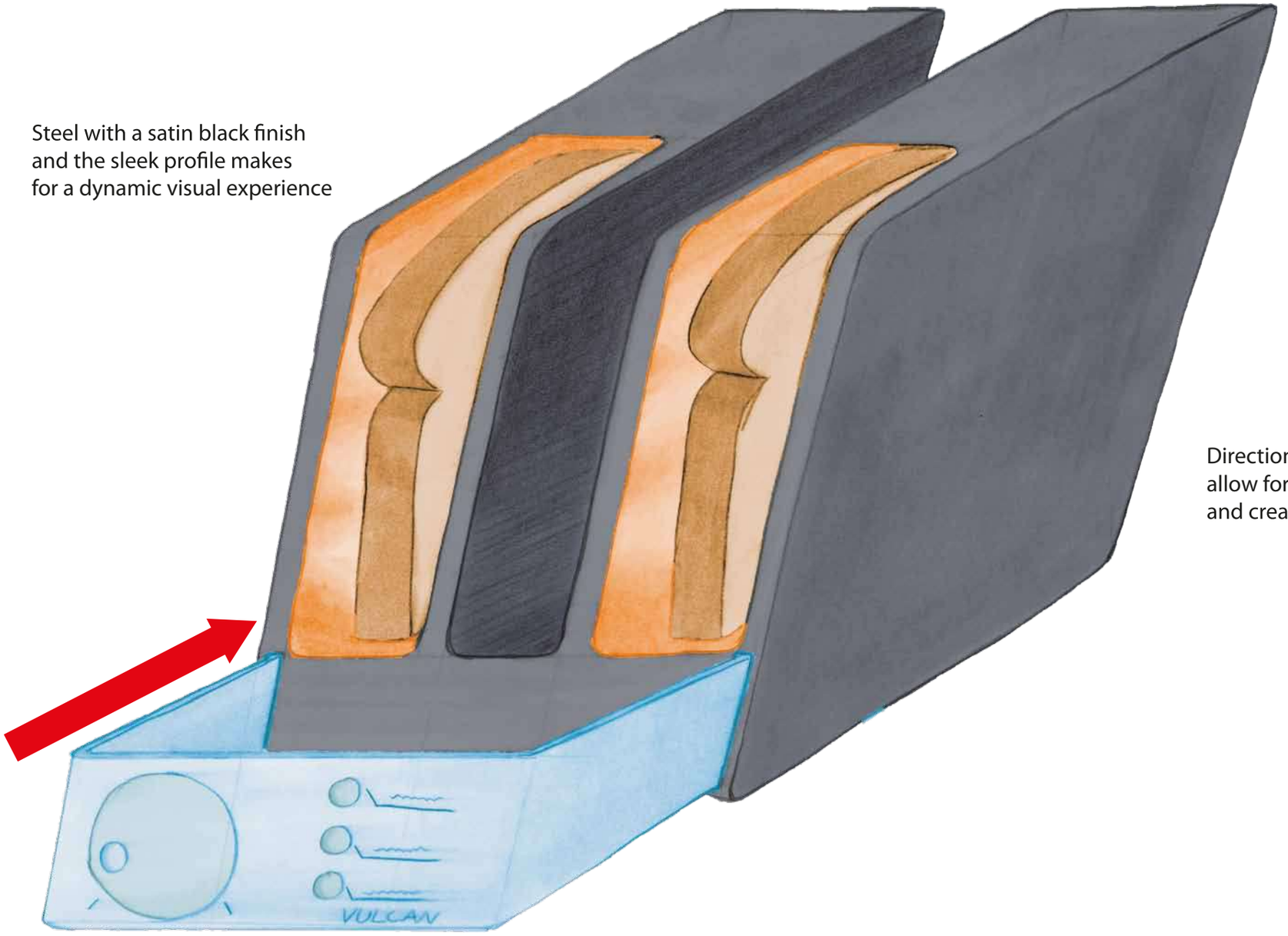

control panel buttons
screen displays time and other information
8:30

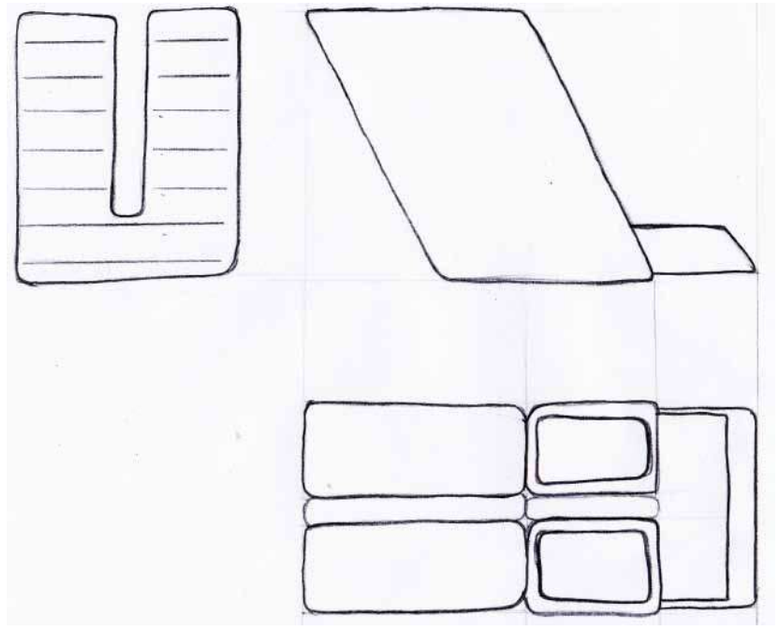

detatchable frame



concept 3

Steel with a satin black finish
and the sleek profile makes
for a dynamic visual experience





Directional rear vents exhaust heat
allow for humidity control
and create a faux sci-fi glow

Bread slides horizontally into
the toaster by pushing the blue
polycarponate handle

concept 1