Contact us for more information
Tyler Foust: (214) 551-1163

FAQ's

GelZone Controller

PATENT PENDING

Q: How does it work?
A: The microprocessor monitors the two photocells.
There are several possible scenarios associated with them:

(1) A body enters into the photocells without passing them.
An optional red lamp may be lit on the dispenser and a picture/video can be captured/started at this point in time. In this case, if the sanitizer is dispensed (manual lever or motion touch-free) then no violation occurs and the system essentially does nothing further. The person can now enter the protected zone with sanitized hands. This is the anticipated normal operating mode. People will learn quickly and intuitively that when they see the GelZone on the wall that they need to Gel before passing it. The next scenario is the teacher...we expect most people will only need to be reminded by #2 once or twice.

(2) Entering the protected GelZone: A body enters into the photocells and passes thru them in the order that indicates they are entering the protected zone. In this case, the alarm condition is activated (sounder is activated, red light is blinking). The dispense lever must now be pressed to extinguish the alarm condition within the timeout period. If not, the system can report the violation along with the offender's picture/video to a monitoring station over WiFi. The systems has a time-out period and resets itself thereafter.

(3) Leaving the protected Gel Zone. A body enters into the photocells and passes thru them in the order that indicates it is exiting the protected zone. In this case, the system essentially does nothing. The system can be setup to also alarm in this state, to require sanitizing upon passing the GelZone station from either direction.

Q: Why doesn't it dispense Gel?
A: It's just a proof-of-concept and our 1st prototype. We wanted to keep-it-simple to show the concept.
If there is market interest, we can make a special dispenser that incorporates all the components more properly. Or we can try and find an existing dispenser and adapt the components to it. Or, find a manufacturer of Gel and dispensers that wants to work with us.

Q: What's the range on the system?
A: The GelZone entry point can be up-to 12' using the present photocells.

Q: Is it difficult to setup?
A: Not at all. Mount the GelZone controller to the wall, set the ENTRY side switch and plug it into normal 110V power. Wave the refelector in front of it on the opposing wall until it beeps indicating that it is aligned. When the system powers-up it looks for the reflector. If it is not discovered, then it goes into the teach mode. Hold the reflector in position until you hear beep-beep 5 times in succession and you're done.

Q: How much does it cost?
A: We hope to be able to license or sell the idea to a company like Purell. We expect they will give the dispenser away for free.
Q: Why would they do that?
A: Because they know they will sell 20x as much gel!

Q: How much did this prototype cost to make?
A: The photocells are the most expensive part at the moment. In very low quantity they cost around $50ea. We know we can find less expensive options. The microprocessor and WiFi interface cost around $5, the switch around $4 and the PCB around $5. The Purell dispenser was $10. So all in for the prototype is around $125 and we would definitely try and get that down by half or more.

©2019 Robey Controls, All Rights Reserved

Q: What are the product options?
A: The basic solution includes only the microprocessor, photocells and beeper.
A large red LED lamp on the top will be an option, as well as the WiFi interface and the camera.
We are considering an RFiD read onboard so that Doctors and Nurses can be identified and pass by the dispenser without using it or some special cases

Q: Are there any setup options planned?
A: Yes
(1) Silent mode, where only the RED light is used
(2) Violation time-out, from 10-999 secs
(3) Scheduling, where it is only active during a scheduled time-period
(4) WiFi access password
(5) ENTRY side switch, to determine which side is the protected zone.
(6) Camera On/Off and Picture/Video capture selection
(7) No Pass mode, where sanitizer (Gel/foam etc) must be dispensed upon passing either direction.

Q: What if we wanted to install it on the opposite wall?
A: There's a switch inside to set the ENTRY point for the GelZone, so it can be placed on either the left or right wall entering the GelZone.

Q: What if there are more than one person entering the room?
A:"Tail-gating' behind a person is not allowed, anymore than it is allowed when badging into a work-place.
If this becomes a problem, the camera option may help solve it. No system is perfect, but this system should dramatically improve the use of the sanitizer.

Q: What is planned for the WiFi interface?
A: Remote logging of statistics (# of successful dispenses, # of violations, pics/videos of violators, etc)

Q: What markets do you see for it?
A: Definitely hospitals for their patient rooms.
We're getting feedback for other markets now too, such as kitchen-staff restaurant restrooms, nursing homes, home-care for patients in bedrooms, etc

Q: Is the product idea patented?
A: We are presently Patent Pending
Q: Are there other products like this already on the market?
A: Not that we know of. There are some rather complicated systems that involve geosensing or motion sensing to encourage hand-sanitizing, but none that we've seen so simple and effective and intuitive.

Q: What about kids running back and forth?
A: Set the dispenser at a height that will allow them to pass under it undetected (like a pet-alley on a motion sensor)

Q: What's next for the product?
A: We want to get feedback on the design and continue to enhance it, while exposing it to the market and hopefully license or sell the idea to a well-known supplier in the industry.

Q: Can the system be used with touch-free dispensers?
A: Yes, the same principle of operating applies to dispense lever and motion activated touch-free dispensers.

Q: Are you taking on investors?
A: Perhaps, what are your thoughts?

©2019 Robey Controls, All Rights Reserved

GelZone Controller
Features & Benefits

WiFi Interface
Reports violation, Pics, videos, traffic count, Gel-level, etc

Beacon Lamp
Flashes when violation occurs

Beeper
Reminds passerbys to sanitize hands.
'Silent Mode' option available with red light

Optional Camera
For video or image capture

Optional Speaker
Instead of beeping
Speak
Wash your hands
in any language!

Entry Switch
GelZone controller can be placed on left or right side of entry point

Easy Installation
1 minute setup!

Direction sensors
Controlled entry
Uncontrolled exit

Gel level sensor
Alert staff to refill gel bag

Optional RFiD tag reader, to bypass gel in special circumstances

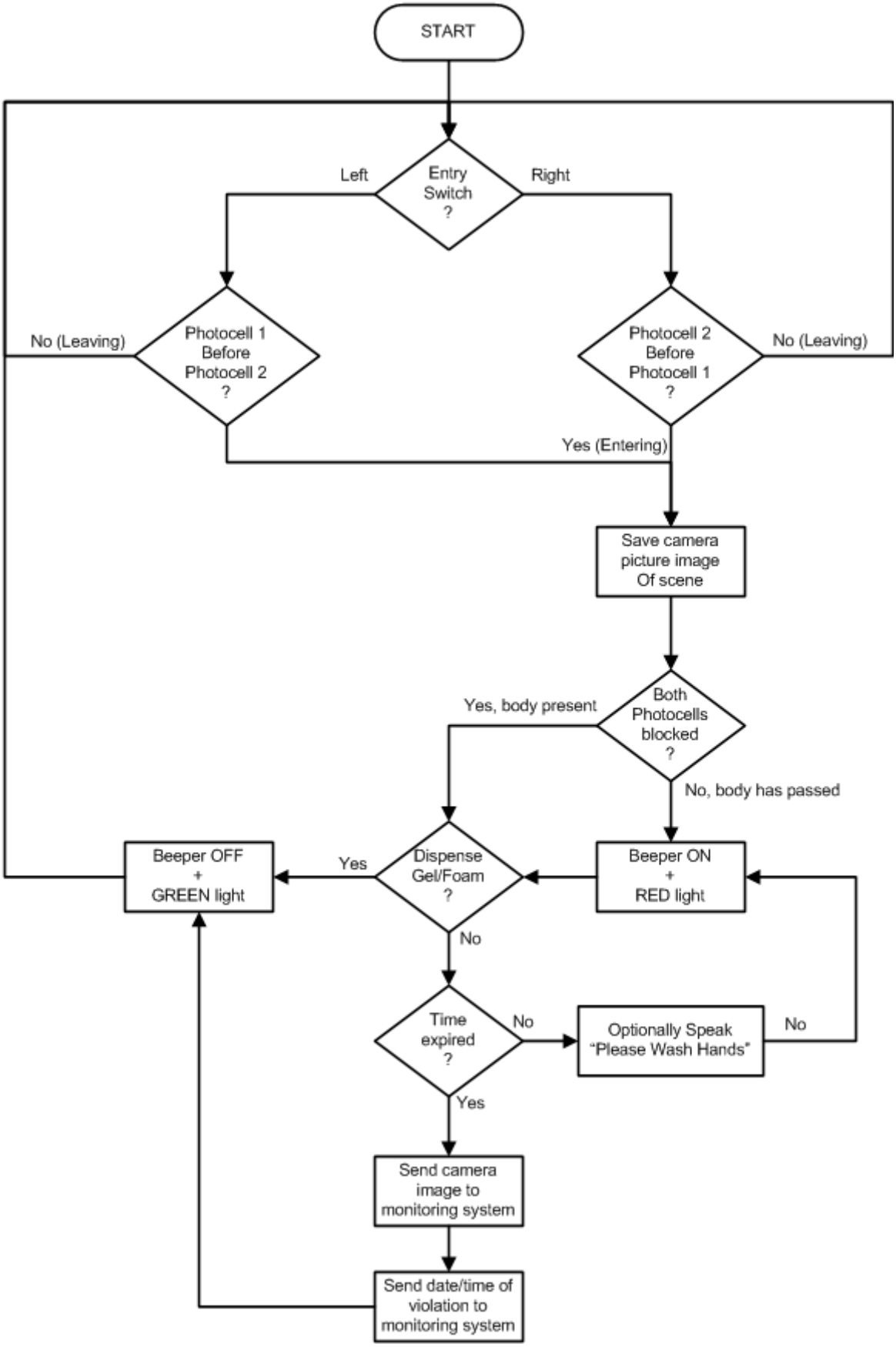
Low-Cost
More than pays for itself in additional gel sales

Self-contained unit
Simply plug-n-play

Dispense lever
Cancels or silences the alarm after dispensing gel

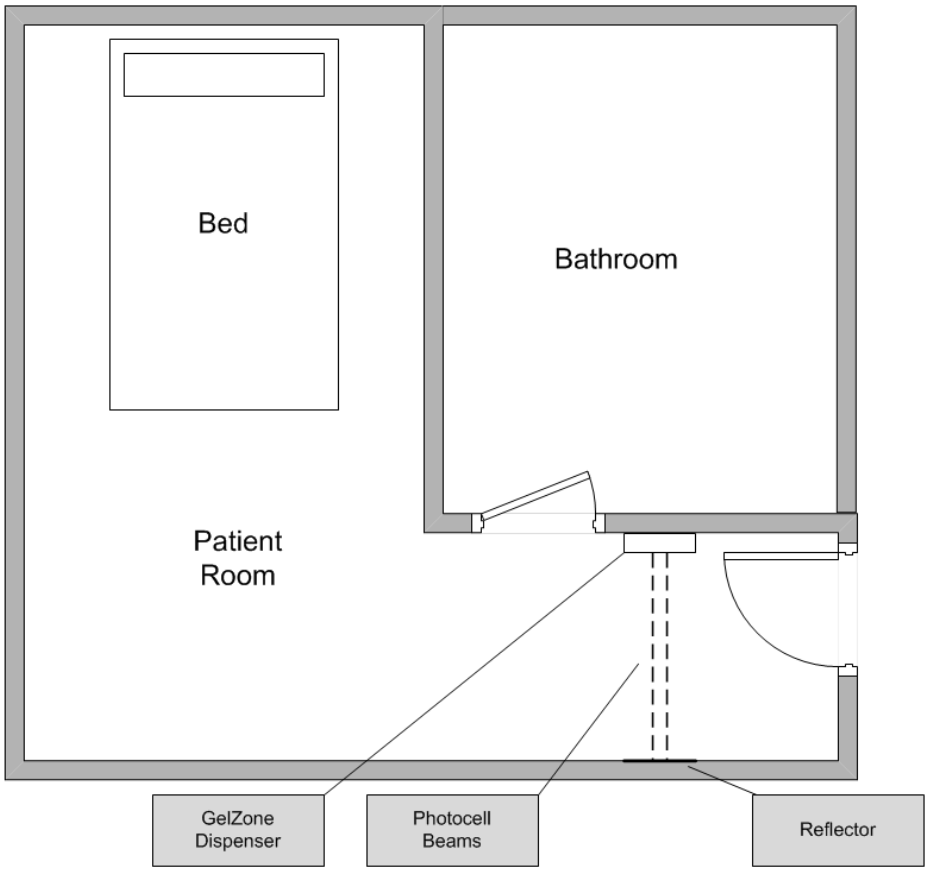
Sanitizer dispensed from touch-free style dispensers also silences the alarm

©2019 Robey Controls, All Rights Reserved



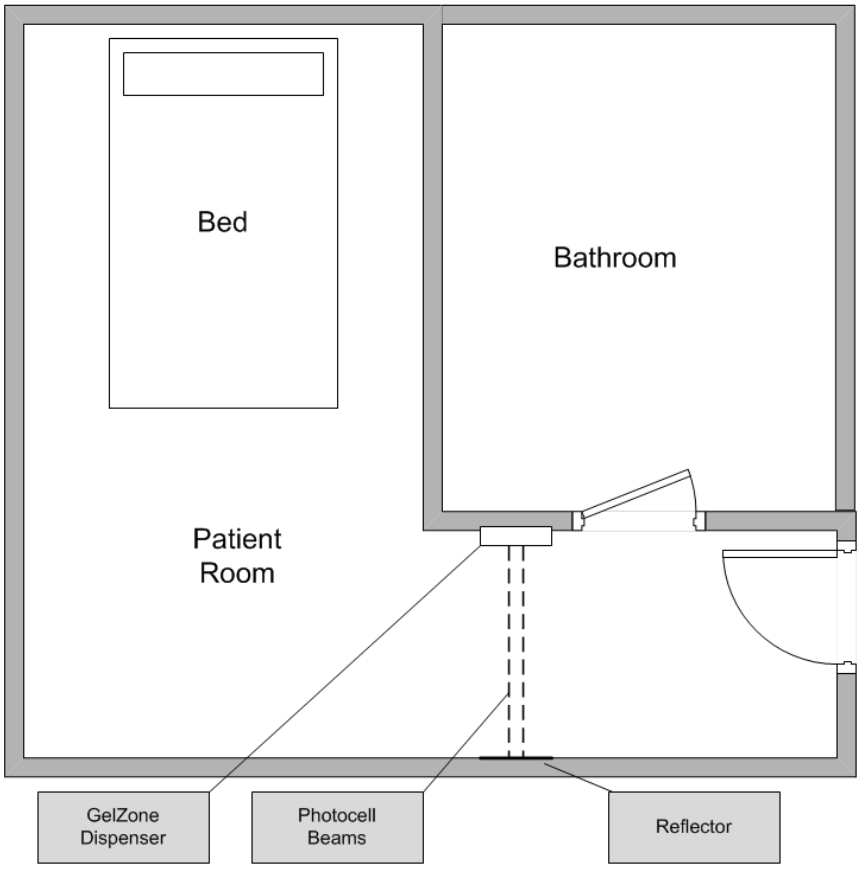
©2019 Robey Controls, All Rights Reserved

Simplified operating flow chart



Example Gel Zone Control installation #1

©2019 Robey Controls, All Rights Reserved



Example Gel Zone Control installation #2

©2019 Robey Controls, All Rights Reserved