



**5 - 8 DECEMBER 2022**  
DUBAI WORLD TRADE CENTRE

# DIGITAL TRANSFORMATION IN HVAC: HONEYWELL APPROACH

**ADESH MATHUR**

**BUSINESS DEVELOPMENT LEADER**



# Welcome

## ***DIGITAL TRANSFORMATION***

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- *WHAT IS IT ALL ABOUT*
- *HONEYWELL APPROACH*
- *CONNECTED CONTRACTOR PROGRAM*

# HONEYWELL INTERNATIONAL INC. OVERVIEW

NASDAQ: **HON** | ~**950** sites | ~**110,000** employees | **Charlotte, N.C.** headquarters | **Fortune 100**



## **BUILDING TECHNOLOGIES**

Commercial building owners and operators use our hardware, software and analytics to help create safe, efficient and productive facilities. Our solutions and services are used in more than 10 million buildings worldwide.



## **PERFORMANCE MATERIALS AND TECHNOLOGIES**

We develop advanced materials, process technologies, automation solutions and industrial software that are revolutionizing industries around the world.



## **AEROSPACE**

Our products are used on virtually every commercial and defense aircraft platform worldwide and include aircraft propulsion, cockpit systems, satellite communications and auxiliary power systems.



## **SAFETY AND PRODUCTIVITY SOLUTIONS**

We improve enterprise performance and worker safety and productivity with automated material handling and voice scanning and mobile computing technology, software solutions and personal protective equipment and sensing technology.

**Aligned to Key Global Macro Trends**

# CARBON NEUTRAL BY 2035

We pledge to achieve carbon neutrality in our facilities and operations by 2035. Here's where we stand today:



**90%**  
**REDUCTION**  
in greenhouse gas  
intensity since 2004



**~70%**  
**IMPROVEMENT**  
in energy efficiency  
since 2004



**5,700**  
**SUSTAINABILITY**  
projects since 2010



**~50%**  
**OF NEW PRODUCT RESEARCH  
AND DEVELOPMENT**  
investment focused on solutions  
that improve environmental  
and social outcomes  
for customers



**~3,000**  
**ACRES**  
remediated and restored  
as valuable community  
assets



**155**  
**MILLION GALLONS**  
of water saved in  
water-stressed  
areas since 2013



**42**  
**MILLION CARS**  
the equivalent of the number  
of cars removed from the  
road for one year  
thanks to Solstice

**Honeywell**

# DIGITAL TRANSFORMATION

what



*Adoption of digital technology*

why



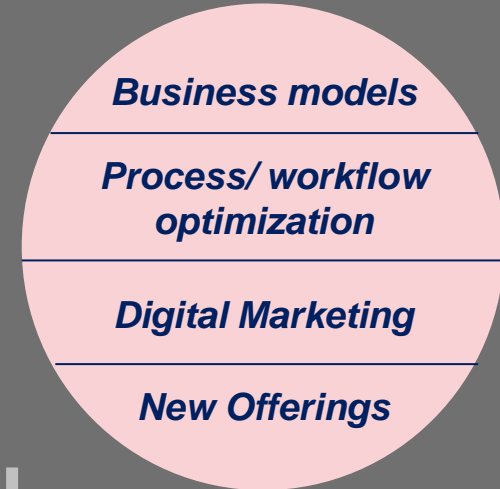
*To solve a problem/ increase productivity/ value to customers*

how



*Replacing non-digital/ outdated technology & workflows*

where



*In the context of a business/ process*

*Energy*

*Buildings*

*Pharma*

*Logistics*

*Electronics*

*....*

*Digital Channels/ AR/ VR – Marketing*

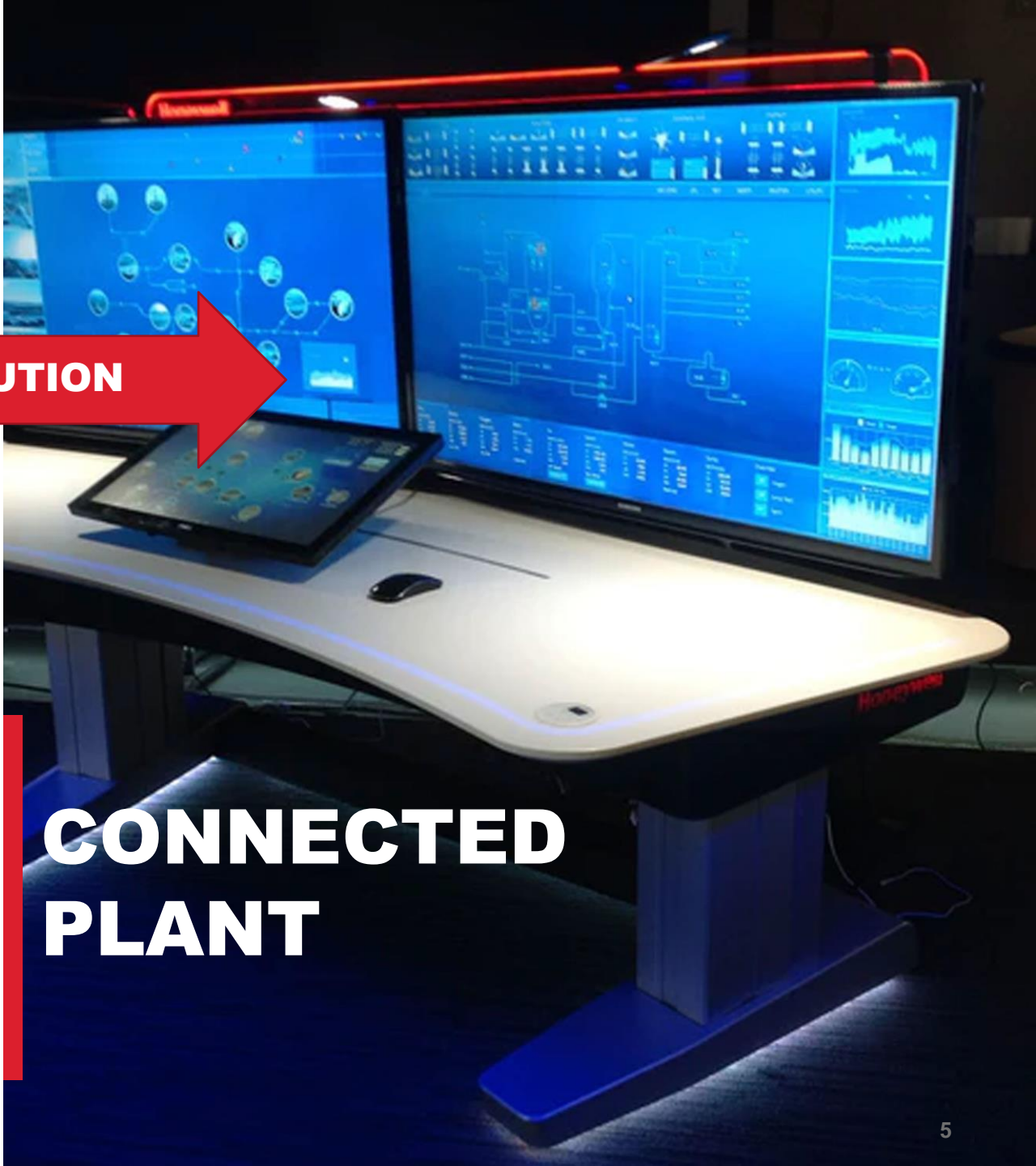
*Blockchain – SCM/ Logistics*

*Connected Plant/ Digital Worker/ Robotics- Manufacturing*



# INDUSTRIAL PROCESS SOLUTIONS

**EVOLUTION**



# CONNECTED PLANT



**EVOLUTION**

**BUILDING  
TECHNOLOGIES**



**CONNECTED  
BUILDINGS**

# HUMAN CENTRIC

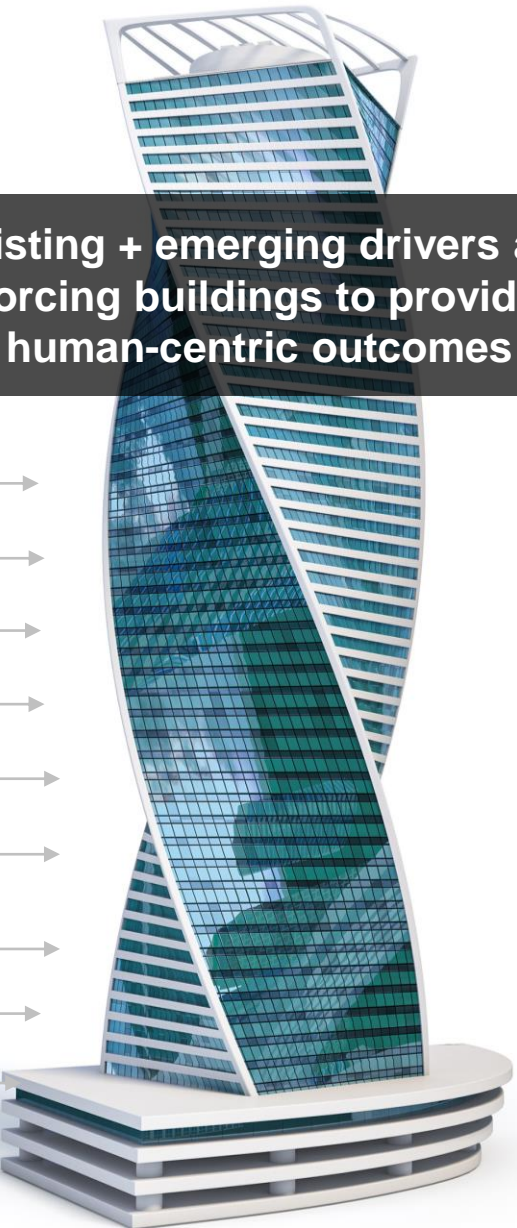
Existing + emerging drivers are forcing buildings to provide human-centric outcomes

Emerging Drivers

- OCCUPANT EXPECTATIONS
- URBANIZATION
- DIGITAL TRANSFORMATION
- ENVIRONMENTAL CONSCIOUSNESS
- LABOR SHORTAGE
- ENHANCED USER EXPERIENCE

Existing Drivers

- SECURITY
- SAFETY
- COMFORT
- PRODUCTIVITY



Occupant/Guest Experience



Health



Sustainability



Carbon Neutrality



Efficiency & Productivity



Safety



Security



Operational Excellence



Ease Of Operation & Maintenance



Uptime Resiliency



# DIGITALLY CONNECTED HONEYWELL SOLUTIONS

## FIRE & LIFE SAFETY

Fire and smoke detection, alarm and notification

## INTEGRATED SECURITY

Access control, video systems and intrusion detection

## ELECTRICAL PRODUCTS

Plugs, sockets and cabling

## BUILDING AUTOMATION

Building management systems, environmental controls, integrated lighting

## INTEGRATION

Open platforms for third-party integration



## PREDICTIVE OPERATIONS & MAINTENANCE

Services, maintenance and remote operations

## LABOR PRODUCTIVITY

Products that are easier to install, commission, maintain and monitor

## END-TO-END DIGITAL TRANSFORMATION

Enterprise performance management SaaS

## BUILDING HEALTH & SUSTAINABILITY

Healthy buildings, energy and performance management

## RECRUITING & RETENTION

Seamless occupant experience, wayfinding, asset location

COMPLIANCE & ENERGY

EXPERIENCE / OPTMIZATION

# ENABLING DIGITAL TRANSFORMATION....

## ENTERPRISE PERFORMANCE MANAGEMENT APPS

### GLOBAL OPERATIONS

Better plan and prioritize investments with near real-time site-to-site comparisons and analytics

### SITE OPERATIONS

Digitize manual processes and enable remote operations while better managing inventory

### ASSET PERFORMANCE

Improve productivity and negotiate more transparent and cost-effective maintenance contracts

### ENERGY & SUSTAINABILITY

Help reduce spend and carbon emissions by automating energy management and KPIs

### DIGITAL WORKER

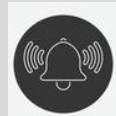
Help enhance safety and compliance, digitize manual processes and better equip workers for complex tasks

## Success stories

**Honeywell Forge Worker Assist @ Petrochemical complex LATAM**



**Smart Alarm Management @ Integrated Refinery in NA**



**Honeywell Asset performance module for energy accounting @ an O&G platform**



**Smart HVAC Controls for Smart University @ Dubai (HBMSU)**



**Connected Contractor Program Middle East for HVAC technicians**



**GENETRON<sup>®</sup> DIGITAL**

**PLATFORM:**

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*The connected contractor  
program*

# FLUORINE PRODUCTS | BUSINESS OVERVIEW

Global Business, Over half of business outside of the United States

## Refrigerants



- Refrigerants for stationary AC, Commercial Refrigeration and automobile AC applications

## Foam Blowing Agent



- High performance, Low GWP solutions for various foam insulation applications

## Aerosols and Solvents



- Low GWP, non flammable solution for precision cleaning, aerosol, circuit cleaning applications

Fluorine Products Locations **5**  
Fluorine Products Employees **1,100**

## Global R&D Locations

- Buffalo, NY
- Shanghai, China
- Gurgaon, India

## Technology Leadership

**4,127 active portfolio**  
(pending & granted)

## New Products

- LGWP Solstice® HFOs: 1234yf, 1234ze, 1233zd and blends
- N41- Non-flammable 410 replacement
- Digital software solutions

**Diversified Portfolio of Products**

# GENETRON® DIGITAL PLATFORM: THE NEED

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WHY ?



# GENETRON® DIGITAL PLATFORM: COUNTERING FAKES

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WHY ?



*UAE investigation of counterfeits*

# GENETRON® DIGITAL PLATFORM: FIELD SUPPORT

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WHY ?



## Field Support

- Query resolution
- Product support & data
- Solution advise
- Efficiency calculations

# GENETRON® DIGITAL PLATFORM: TRAININGS

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WHY ?



## Trainings

- E-learning
- Skill development
- New technologies
- Retrofits training



# GENETRON® DIGITAL PLATFORM: REGULATIONS

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WHY ?



New Regulation  
This has changed



*Montreal Protocol*

*Kigali  
Agreement*

*F-Gas*

*EPA*

# GENETRON® DIGITAL PLATFORM HOW ?

## HOW ?

Physical Product sold, bought  
and consumed



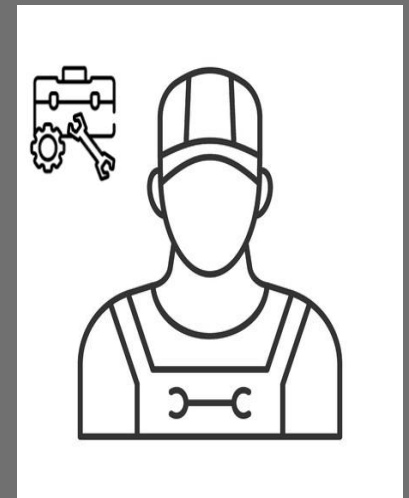
Genetron App  
The Connection



Digitally Connected Product



Connected  
Contractor



**DIGITAL TRANSFORMATION TO A CONNECTED OFFERING**

# HOW DOES IT WORK ?

## GENETRON® APP

Authentication  
& Scan History

Ask an  
Expert

Technical  
Webinars

Product  
Information



Scan to Earn  
Rewards &  
Loyalty  
Program

Download on the  
App Store

GET IT ON  
Google Play



Scan me



Scan me

## QR Codes

**Honeywell**  
#213924545345  
QR Code  
Scan & Verify  
Made in USA  
Powered by www.oks.io for Honeywell

Instructions for Use:

- Scan the above QR code to download the Genetron™ App
- OR
- Download the Genetron™ App from the Android PlayStore / iOS AppStore and register as a Trade Partner or Contractor to verify the product.

**Honeywell**  
241080020161  
Scan & Verify  
SCAN HERE  
Powered by www.oks.io for Honeywell

*On Box & Carton  
Linked 1-1  
Digital connection*

## PRODUCTS

2 1

**Honeywell**  
Genetron™  
404A  
Refrigerant

**Honeywell**  
Genetron™  
AZ-20™  
410A  
Refrigerant

3 4

**Honeywell**  
Genetron™  
134a  
Refrigerant

**Honeywell**  
Genetron™  
407C  
Refrigerant

New

**Solstice N40  
Solstice EZ Flush**

## CUSTOMERS

### Contractors

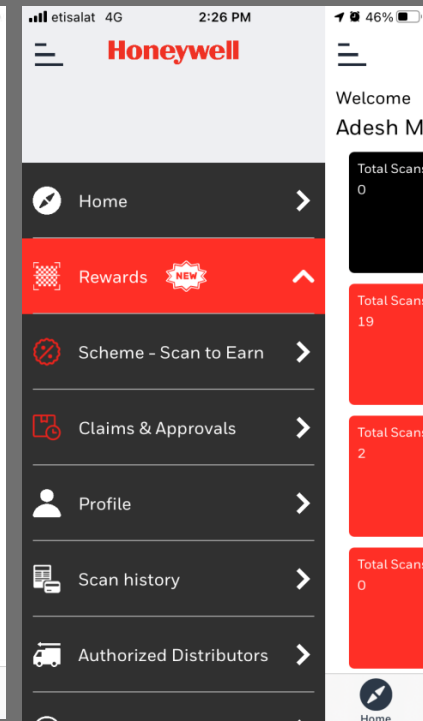
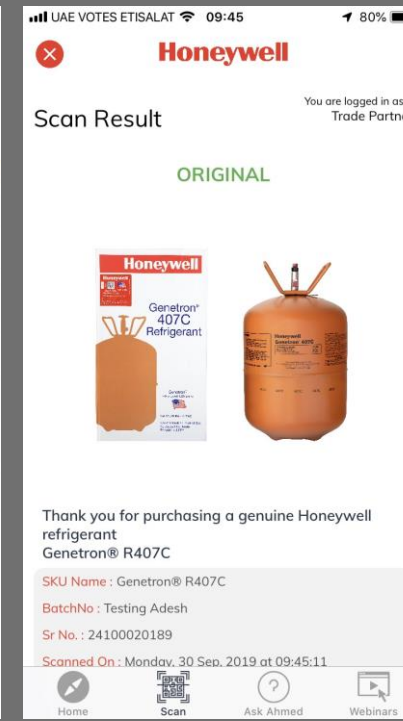
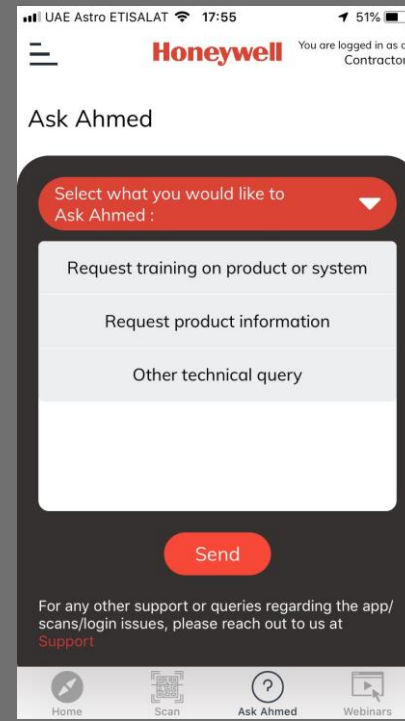
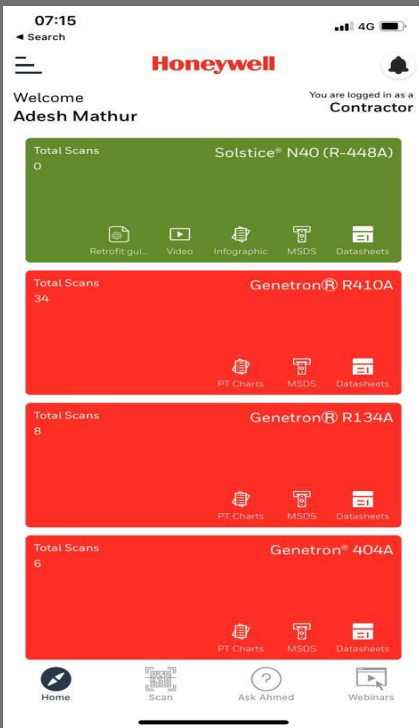
- Standalone Contractors
- Service Companies
- Technicians
- Maintenance Depts

### Trade Partners

- Authorized Distributors
- Wholesalers
- Retailers/ Shop owners

# GENETRON APP MODULES

## GENETRON APP MODULES



Key information at fingertips

E-learning (Linked to Marketo)

Field support (product/- technical support)

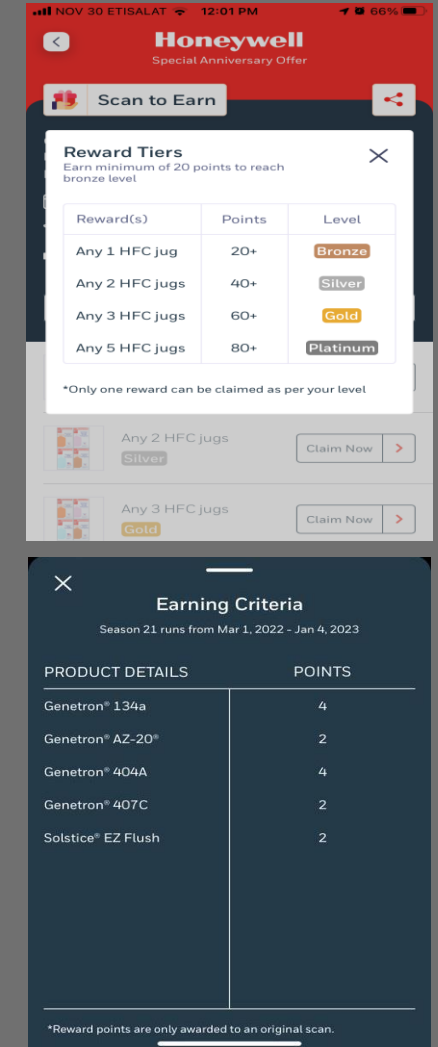
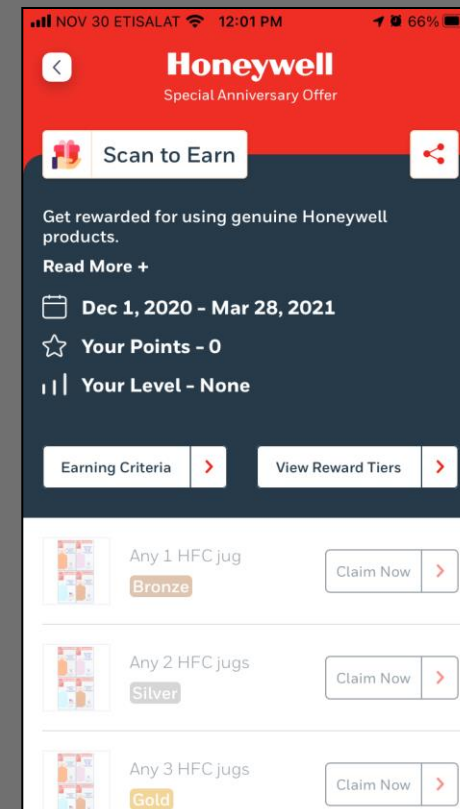
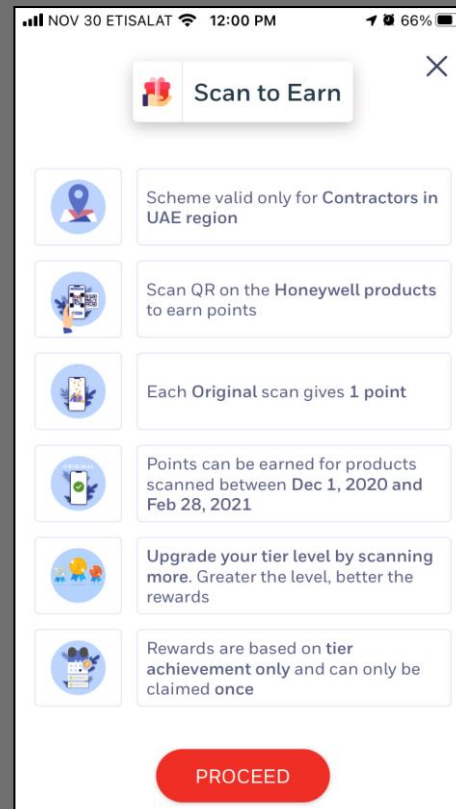
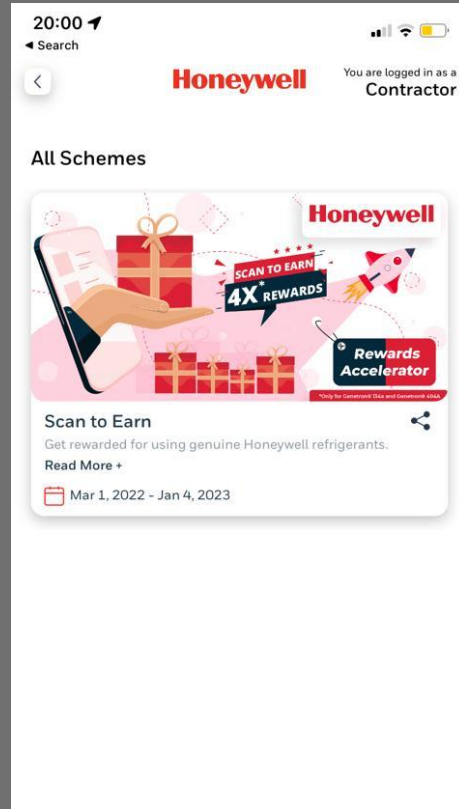
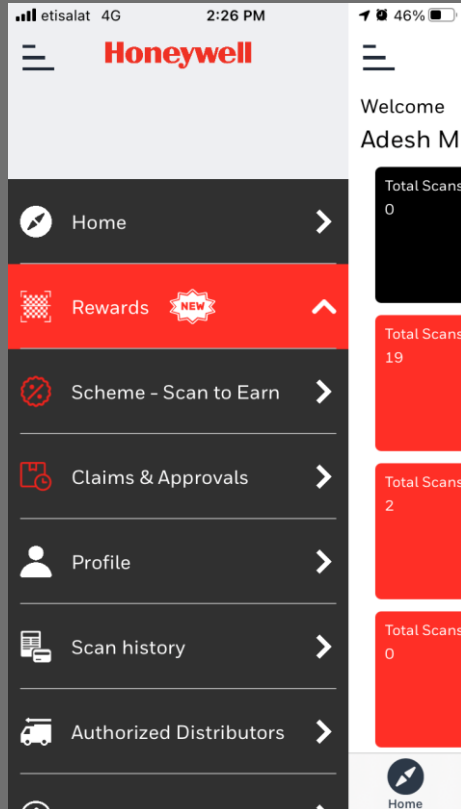
Where to buy original

Product Authentication

Rewards & Loyalty Program

# SCAN TO EARN REWARDS PROGRAM

FOR HVAC CONTRACTORS AND TECHNICIANS



Rewards & Loyalty Program

# CLOSING THOUGHTS...

## WE BELIEVE IN A FUTURE WHEN...

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**

**Honeywell**



Everything is always connected and learning



Operations can be managed from anywhere



People are free to focus on strategic tasks



Every worker can be an expert

# Honeywell Invites you to join our Connected Contractor Program.

**THE  
FUTURE  
IS  
WHAT  
WE  
MAKE IT**

**Honeywell**



**MEET US  
AT BIG5**

Meet Honeywell's experts at Hall 3 / Stand 3A131  
5-8 December, 2022 | DWTC, Dubai

# WE BELIEVE IN A FUTURE WHEN...



**Everything  
is always  
connected  
and learning**



**Operations  
can be  
managed from  
anywhere**



**People are  
free to focus  
on strategic  
tasks**



**OT+IT data  
are easy to  
work with**



**Every worker  
can be an  
expert**



# THANK YOU



Concrete



Facilities  
Management



Geotechnical  
& Engineering



HVAC R



Offsite  
& Modular



Project  
Management



Solar



Stone Design



Technology



Urban Design  
& Landscape