Project – Security Camera

Project timeline:

- Design phase initiation: March, 2017
- Prototype build: June, 2017
- Preproduction 3K-5K units: January, 2018

Camera	
Camera Type	2MP indoor IR Cube
Image Sensor	1/2.8" 2MP CMOS sensor
Lens	TBD
Horizontal view angle	103° - 160° field of view
IR working distance	10m effective range in complete darkness
WDR	
Day/Night function	Mechanical IR cut filter, light sensor
Video & Audio	
Image Setting	Rotation: mirror, flip, mirror flip, corridor mode, Brightness, contrast, saturation, sharpness
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	Overlay capabilities: time, date, text and privacy Image
Video streaming	Simultaneous Motion JPEG, H.264 or H.265
	Controllable frame rate and bandwidth
	Support unicast (Real Time Streaming Protocol)
Frame Rate	Motion JPEG : up to 30 fps at 1920 x 1080
	H.264: up to 30 fps at 1920 x 1080
Video compression	Motion JPEG
	H.264 or H.265 baseline/ main profile/high profile
Resolutions	Motion JPEG/H.264 or H.265:
	2 Profile from 1920 x 1080 to 320 x 240 (total 5 resolutions)
	2 Profile from 640 x 480 to 320 x 240 (total 3 resolutions)
Auido	Microphone monitoring 5-25 Khz
	Built-in speaker - up to 100 db, alarm capability
I/O & Connector	
Power Supply	Replaceable battery - TBD volts
Storage	Micro SD/SDHC/SDXC up to 32GB
Buttons	"Panic button" - front panel button 4 cm diameter
	Reset push button
Network	
Users	5 simultaneous users
WIFI	Wi-Fi 802.11 a/b/g/n (2.4G & 5G Dual-band)
Security	Multiple user access levels with password protection, HTTPS encryption
Supported protocols	IPv4, IPv6, Bonjour, TCP/ IP, DHCP, DNS, DynDNS, PPPoE, ARP,
	ICMP, FTP, SMTP, NTP, UPnP, RTSP, RTP, RTCP, HTTP, HTTPS, SSL,
	TCP, UDP

General	
Housing	Polycarbonate + ABS
Illumination	Rear case peripheral LED illumination, blue color led's visible in day light
Operating conditions	Starting temperature: 0 ~ 40°C Humidity 10-100% RH
	Working temperature: -10~ 40°C Humidity 10-100% RH
Dimensions	Circular shape - 10 cm diameter, 3 cm height
Weight	up to 250 gr (including battery)
Bracket	Design for wall mount/hanging
Optional	Carbon monodioxaide sensor (example MQ-7)