

ABSTRAK

Semakin berkembangnya komunitas pecinta *drone* di Kota Bandung pada kenyataannya tidak di dukung dengan kemudahan akses yang meliputi informasi dan tempat berkumpul dari komunitas tersebut. Hal ini di lihat dari belum adanya retail penjualan yang menjual berbagai jenis *drone* dan segala jenis *spare part* dengan fasilitas untuk komunitas. Oleh karena dibutuhkan fasilitas yang dapat memfasilitasi kebutuhan tersebut seperti “*DRONE KINGDOM*” sebagai wadah atau tempat untuk memfasilitasi penyuka *drone*, sebagai tempat untuk sebagai tempat untuk menjual berbagai jenis *drone* yang memberikan pengalaman secara langsung bagi pengunjung yang ingin tau lebih mengenai produk yang dijual dan “*DRONE KINGDOM*” diharapkan berperan penting dalam membangun ekosistem *drone* yang sehat di Bandung.

Kosep perancangan “*DRONE KINGDOM*” di fokuskan sebagai *retail* penjualan yang menjual berbagai jenis *drone* dan segala jenis *spare part* dengan fasilitas untuk komunitas. Perancang ingin menerapkan tema “*FLY WITH NO LIMIT*” dan konsep “*FLEXIBILITY*” agar mencerminkan masyarakat mudah menerima hal baru. Adapun ruang yang akan menjadi bagian perancangan adalah “Retail” dibuat dengan berbagai macam jenis *drone* dan kelengkapannya, akan menonjolkan kualitas barang yang dijual dengan harga yang tidak murah ini agar menarik dan memicu konsumen untuk membeli produk. “*Workshop*” akan dibuat kesan ruang yang edukatif bisa dilihat oleh pengunjung sehingga pengunjung bisa merasa dilibatkan dan mengetahui aksesoris apa saja bagian dari *drone*. “Area komunitas” ada untuk tempat berbagi ilmu dibuat kesan ruang yang lebih santai agar terasa nyaman.

Kata kunci : Komunitas, *drone*, *Fly With no Limity dan Flexibility*

ABSTRACT

The growing community of drone lovers in Bandung on the reality is not supported by the ease of access that includes information and places gathered from the community. This is seen from the absence of retail sales selling various types of drones and all kinds of spare parts with facilities for the community. Because of the need for facilities that can facilitate these needs such as "DRONE KINGDOM" as a container or place to facilitate drone enthusiasts, as a venue for as a place to sell various types of drones that provide experience on a regular basis direct for visitors who want to know more about the product being sold and "DRONE KINGDOM" is expected to play an important role in building a healthy drone ecosystem Bandung.

The draft concept of "DRONE KINGDOM" is focused as a retail sales selling various types of drones and all kinds of spare parts with facilities for the community. The designer wants to apply the theme "FLY WITH NO LIMIT" and the concept of "FLEXIBILITY" reflects the community is easy to accept new things. As for the room it will be the design part is "Retail" made with various types of drones and completeness, will highlight the quality of goods sold at a price that is not cheap This is to attract and encourage consumers to buy products. "Workshop" will be created the impression of an educative space can be seen by visitors so that visitors can feel be involved and know what accessories are part of the drone. "Community area" is there for where the sharing of science made the impression of a more relaxed space to feel comfortable.

Keywords: Community, drone, Fly With no Limity and Flexibility

DAFTAR ISI

KATA PENGANTAR	i
ABSTRAK	iii
ABSTRACT	iv
DAFTAR ISI	v
DAFTAR GAMBAR	ix
DAFTAR TABEL	xix
BAB I PENDAHULUAN	1
1.1 Latar Belakang	1
1.2 Identifikasi Masalah	3
1.3 Rumusan Masalah	3
1.4 Tujuan dan Manfaat Perancangan	4
1.5 Ide Gagasan Perancangan	4
1.6 Ruang Lingkup Perancangan	5
1.7 Sistematika Penulisan	5
BAB II TINJAUAN TENTANG DRONE KINGDOM	7
2.1 Drone	7
2.1.1 Pengertian Drone	7
2.1.2 Sejarah Perkembangan Drone	7
2.1.3 Perkembangan Drone di Indonesia	11
2.1.4 Fungsi dan jenis Drone	12
2.1.5 Ketentuan Hukum Penggunaan Drone indonesia	23
2.1.6 Perlengkapan Drone	23
2.1.7 Flying area	32
2.1.8 Standar perancangan arena drone	36
2.1.9 Merk drone	47

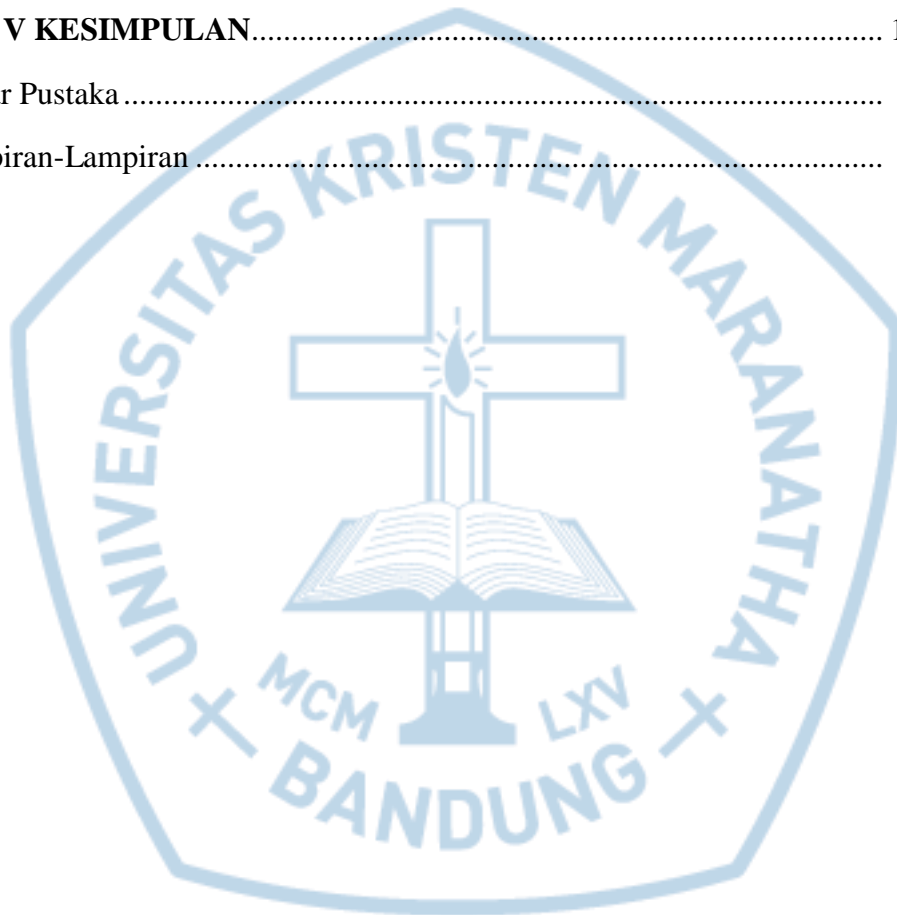
2.2 Retail	63
2.2.1 Pengertian Retail	63
2.2.2 Sejarah Retail	64
2.2.3 Jenis Retail	64
2.2.4 Penataan Retail.....	66
2.2.5 Komposisi ruang penjualan.....	67
2.2.6 Sirkulasi retail	69
2.2.7 Sistem pencahayaan	69
2.2.8 Sistem penghawaan.....	70
2.2.9 Standar ergonomi retail	70
2.2.10 Area showcase.....	73
2.3 Workshop	74
2.3.1 Definisi Workshop	76
2.3.2 Fungsi Workshop	78
2.3.3 Ergonomi Workshop	79
2.4 Area Komunitas	79
2.4.1 Definisi Komunitas	79
2.4.2 Fasilitas area komunitas	79
2.4.3 Cafe	80
2.5 Studi Banding	84
2.5.1 Indo Drone Store	84
2.5.2 DJI Alam Sutera Store.....	88

BAB III DESKRIPSI DAN PROGRAM PERANCANGAN DRONE CENTER..... 89

3.1 Deskripsi dan Program Perancangan Proyek “Drone Kingdom” ..	90
3.2 Fungsi Proyek	90
3.3 Deskripsi Site Dan Bangunan.....	90
3.4 Analisa Tapak dan analisa bangunan.....	91
3.4.1 Analisa tapak	93

3.4.2	Analisa bangunan	93
3.5	Identifikasi User	97
3.6	Analisa bangunan	99
3.6.1	Jobdesk retail	99
3.6.2	Jobdesk Workshop	100
3.6.3	Jobdesk Area Komunitas.....	101
3.6.4	Jobdesk Cafe	102
3.6.5	Jobdesk Bagian Gudang.....	103
3.6.6	Jobdesk Sumber Daya Manusia	103
3.7	Struktur Organisasi	104
3.8	Flow Activity.....	105
3.9	Fasilitas dan Fungsi Ruang	105
3.10.	Buble Diagram dan Kedekatan Ruang	110
3.11.	Zoning dan Blocking	111
3.12.	Konsep Tema.....	112
3.13.	Moodboard Konsep	114
3.14.	Sketsa Ide.....	126
BAB IV	127
ANALISA PERANCANGAN INTERIOR DRONE KINGDOM		
4.1	Penerapan dalam Interior.....	128
4.2	Konsep Desain.....	131
4.2.1	Ringan	131
4.2.2	Dinamis	132
4.2.3	Modular	133
4.3	Aplikasi desain pada retail.....	135
4.3.1	Suasana.....	137

4.3.2	Bentuk	139
4.3.3	Warna Material.....	140
4.3.4	Pencahayaan	141
4.4	Area Fly Zone	143
4.4.1	Suasana.....	144
4.4.2	Bentuk	145
4.4.3	Warna Material.....	147
BAB V KESIMPULAN.....		148
Daftar Pustaka		
Lampiran-Lampiran		



DAFTAR GAMBAR

Gambar 1 Austria Ballons.....	8
Gambar 2 Aerial Attack by Balloon, 1880.....	8
Gambar 3 Nikola Tesla with Wireles Controlled Airship. 1900.....	9
Gambar 4 Aerial Target	10
Gambar 5 DH.82B Queen Bee.....	10
Gambar 6 Uav Red Wagon	10
Gambar 7 Uav Wulung	11
Gambar 8 Uav Heron	11
Gambar 9 Fixed-Wing.....	15
Gambar 10 Fixed-Wing Hybrid VTOL.....	15
Gambar 11 Endurance Drone.....	16
Gambar 12 Multi-Rotor.....	17
Gambar 13 Single-Rotor Helicopter	17
Gambar 14 Quad Copter	18
Gambar 15 Tricopter.....	18
Gambar 16 Hexacopter	18
Gambar 17 Octocopter	19
Gambar 18 GPS Drone.....	19
Gambar 19 Trik Drone	20
Gambar 20 Drone RTF.....	20
Gambar 21 Racing Drone.....	21
Gambar 22 Delivery Drone	21
Gambar 23 Photography Drone	22

Gambar 24 Nitro Powered Drone	22
Gambar 25 Frame.....	23
Gambar 26 Motors	24
Gambar 27 Tipe Motor.....	25
Gambar 28 ESC.....	26
Gambar 29 Flight Controller.....	26
Gambar 30 PDB	27
Gambar 31 Camera	27
Gambar 32 Contoh Hasil Lensa	28
Gambar 33 VTX.....	29
Gambar 34 Antena	29
Gambar 35 Propeller	30
Gambar 36 Transmitter And Receiver	30
Gambar 37 Goggles.....	31
Gambar 38 Baterai	31
Gambar 39 Charges.....	32
Gambar 40 Manuver Roll Drone.....	35
Gambar 41 Manuver Pitch Drone	36
Gambar 42 Straight	37
Gambar 43 Basic Corner.....	37
Gambar 44 Constrained Corner	38
Gambar 45 Complex Coner	38
Gambar 46 Hairpin.....	39
Gambar 47 Chicane.....	39
Gambar 48 Bus Stop	40
Gambar 49 Round About	40
Gambar 50 Needle.....	40
Gambar 51 Climbs And Dives	41

Gambar 52 Gate	41
Gambar 53 Helix	42
Gambar 54 Track Race Outdoor	42
Gambar 55 Track Race Indoor	46
Gambar 56 Drone Gate	46
Gambar 57 Led Micro Light Gate.....	47
Gambar 60 Mavis Air.....	48
Gambar 61 Accessories Mavis Air	48
Gambar 62 Spark.....	48
Gambar 63 Accessories Spark	49
Gambar 64 Phantom 3.....	49
Gambar 65 Accessories Phantom.....	49
Gambar 66 Phantom 4 advanced.....	50
Gambar 67 Phantom 4 pro	50
Gambar 68 Accessories Phantom 4 pro	50
Gambar 69 Dji Googles fpv	50
Gambar 70 Inspire 1	51
Gambar 71 Inspire 2.....	51
Gambar 72 MG Agras 1	51
Gambar 73 Matrice	51
Gambar 74 Matrice 600	52
Gambar 75 Spreading Wings S1000+.....	52
Gambar 76 Tello	52
Gambar 77 Accessories Tello	52
Gambar 78 3D Robotics X8+.....	53
Gambar 79 3d robotics unveils solo.....	53
Gambar 80 Parrot Bebop 2 Power - Pack Fpv	54
Gambar 81 Mambo drone	54

Gambar 82 Parrot AR. DRONE	54
Gambar 83 Parrot Disco FPV Fixed-Wing	54
Gambar 84 Parrot Airborne Drones	55
Gambar 85 Parrot JUMPING RACE	55
Gambar 86 parrot products drone hydrofoil	55
Gambar 87 H501A X4 Air Pro	55
Gambar 88 H109S X4 Pro Professional.....	56
Gambar 89 H107D+X4 FPV PLUS	56
Gambar 90 H111 NANO Q4.....	56
Gambar 91 H107C X4 CAM	56
Gambar 92 Z1	57
Gambar 93 X25 PRO	57
Gambar 94 X23W	57
Gambar 95 X8SW-D.....	57
Gambar 96 X15W	57
Gambar 97 X21W	57
Gambar 98 X8 PRO	58
Gambar 99 X8HW	58
Gambar 100 X54HW	58
Gambar 101 X5SW	58
Gambar 102 X14W	58
Gambar 103 JJRC H31 Waterproof Drone	59
Gambar 104 Karma drone.....	59
Gambar 105 Hexo drone	59
Gambar 106 Visuo drone	60
Gambar 107 JJRC H37.....	60
Gambar 108 Mini drone copter JJRC H36.....	60
Gambar 109 blue JJRC H23 Air-Ground Flying Car.....	60

Gambar 110 JJRC H43WH.....	61
Gambar 111 JJR C H26W.....	61
Gambar 112 Cheerson CX-10C Mini 2.4G 4CH 6 Axis Nano RC Quadcopter	61
Gambar 113 Cheerson CX-20.....	61
Gambar 114 Quadcopter Drone RC Cheerson CX23	62
Gambar 115 Cheerson CX-40 FROG	62
Gambar 116 Walkera Runner drone 250	62
Gambar 117 ASTROX FRAMES.....	62
Gambar 118 DEMONRC FRAMES.....	62
Gambar 119 Mi drone	63
Gambar 120 Pola aktivitas dalam sebuah retail	66
Gambar 121 Contoh bentuk shop front.....	67
Gambar 122 One Way Service Road	67
Gambar 123 Two Way Service Road to shops	68
Gambar 124 Sistem T.....	68
Gambar 125 Pola loading deck	68
Gambar 126 Jenis Pencahayaan Buatan.....	69
Gambar 127 island ergonomic buku	71
Gambar 128 ergonomi tinggi manusia saat berdiri	71
Gambar 129 contoh island	71
Gambar 130 island ergonomic buku	71
Gambar 131 ergonomi tinggi manusia saat berdiri	71
Gambar 132 contoh island	71
Gambar 133 island ergonomic buku	72
Gambar 134 ergonomi tinggi manusia saat berdiri	72
Gambar 136 jarak visual display.....	72
Gambar 137 Jarak pandang nyaman	73
Gambar 138 Posisi tenaga kerja optimal.....	74

Gambar 139 Auditorium Style	79
Gambar 140 Banquet Style	79
Gambar 141 Hollow Square Style.....	79
Gambar 142 Classroom.....	79
Gambar 143 Conference Style	79
Gambar 144 U-Shape Style.....	79
Gambar 145 Table service	81
Gambar 146 Counter service.....	81
Gambar 147 Carry out service.....	81
Gambar 148 Ruang Cafe.....	82
Gambar 149 Sistem Organisasi Ruang	83
Gambar 150 Tampak display indo drone	84
Gambar 151 Tampak display indo drone	85
Gambar 152 Tampak display indo drone	85
Gambar 153 Tampak depan DJI	86
Gambar 154 Fly zone dalam retail DJI	86
Gambar 155 display dalam retail DJI.....	87
Gambar 156 display dalam retail DJI.....	87
Gambar 157 display dalam retail DJI.....	87
Gambar 158 CASHIER dalam retail DJI	88
Gambar 159 Lokasi Perancangan Proyek “Drone Kingdom”	89
Gambar 160 Akses masuk Graha Manggala Siliwangi.....	89
Gambar 161 lokasi	
.....	91
<i>Gambar 162</i> Pencapaian bangunan	
.....	92
Gambar 163 kondisi	93
Gambar 164 Area parkir.....	93

Gambar 165 pintu masuk	93
Gambar 166 Sirkulasi horizontal	94
Gambar 167 Fasad Bangunan	96
Gambar 168 Akses Masuk Gedung	97
Gambar 169 Akses Masuk Gedung.....	97
Gambar 170 Jobdesk Retail	99
Gambar 171 Jobdesk Workshop	100
Gambar 172 Jobdesk Area Komunitas.....	101
Gambar 173 Jobdesk Cafe	102
Gambar 174 Jobdesk gudang	103
Gambar 175 Jobdesk Sumber Daya Manusia	103
Gambar 176 Struktur Organisasi.....	104
Gambar 177 Flow Pengunjung.....	105
Gambar 178 Flow Pegawai	105
Gambar 179 Free stand	108
Gambar 180 Wall systems Cabinet.....	108
Gambar 181 Meja kasir.....	108
Gambar 182 Meja.....	108
Gambar 183 Led Gate.....	109
Gambar 184 Meja kerja.....	109
Gambar 185 Buble Diagram	110
Gambar 186 Diagram kedekatan ruang.....	111
Gambar 187 Zoning/Bloking	111
Gambar 188 Zoning/Bloking	112
Gambar 189 Konsep Ruang Drone Kingdom	113
Gambar 190 Konsep Moodboard	114
Gambar 191 bentukan	115
Gamar 192 furniture.....	115

Gambar 193 warna	116
Gambar 194 material.....	116
Gambar 195 material.....	116
Gambar 196 material.....	117
Gambar 197 material.....	117
Gambar 198 penghawaan.....	117
Gambar 199 penghawaan.....	118
Gambar 200 penghawaan.....	118
Gambar 201 penghawaan.....	118
Gambar 202 pencahayaan	119
Gambar 203 pencahayaan	119
Gambar 204 pencahayaan	119
Gambar 205 keamanan.....	119
Gambar 206 keamanan	119
Gambar 207 garis dinamis	206
Gambar 208 bentukan dinamis.....	121
Gambar 209 warna	121
Gambar 210 pola warna	122
Gambar 211 material.....	122
Gambar 212 material.....	123
Gambar 213 open space	123
Gambar 214 modular furnitur	124
Gambar 215 sketsa display area	125
Gambar 216 sketsa corner area	125
Gambar 217 sketsa freestand display.....	126
Gambar 218 Sketsa Ide	126
Gambar 219 Gambar maps.....	127
Gambar 220 area drone kingdom.....	128

Gambar 221 material kesan ringan	131
Gambar 222 gambar garis dinamis	132
Gambar 223 retail drone	133
Gambar 224 flyzone	133
Gambar 225 corner	134
Gambar 226 cable kit	134
Gambar 227 drone led rack	134
Gambar 228 drone self	135
Gambar 229 led wall	135
Gambar 230 area display	136
Gambar 231 area mini fly zone	136
Gambar 232 area kasir	137
Gambar 233 display area drone kingdom	137
Gambar 234 sketsa display area drone kingdom	138
Gambar 235 corner area drone kingdom	139
Gambar 236 gambar garis dinamis	139
Gambar 237 gloosy hpl	140
Gambar 238 material	140
Gambar 239 material	140
Gambar 240 gloosy hpl	140
Gambar 241 material	140
Gambar 242 led sky	142
Gambar 243 area display	142
Gambar 244 downlight	142
Gambar 245 LED	143
Gambar 246 flyzone	143
Gambar 247 flyzone	144

Gambar 248 sketsa tangan fly zone	144
Gambar 249 bentukan	145
Gambar 250 material.....	145
Gambar 251 material	146
Gambar 252 material.....	146
Gambar 253 material.....	146
Gambar 254 material	146
Gambar 255 pencahayaan	147
Gambar 256 pencahayaan	147



DAFTAR TABEL

Tabel 1 Ukuran Frame atau Rangka Micro Drone.....	24
Tabel 2 Tipe Motor Drone	25
Tabel 3 Cuaca Dan Kekuatan Angin.....	44
Tabel 4 DJI Product	48
Tabel 5 3D Robotics Product.....	53
Tabel 6 Parrot Product	54
Tabel 7 Hubsam Drone Product.....	55
Tabel 8 Syma Drone Product	57
Tabel 9 Jjrc Drone Product	59
Tabel 10 Gopro Drone Product.....	59
Tabel 11 Hexo Drone Product.....	59
Tabel 12 Visuo Drone Product.....	60
Tabel 13 Jjrc Drone Product	61
Tabel 14 cheerson drone	61
Tabel 15 Fpv Drone Product.....	62
Tabel 16 Xiaomi Drone Product.....	63
Tabel 17 Analisa Tapak	91
Tabel 18 Analisia Bangunan	93
Tabel 19 Penjelasan Fasilitas dan Fungsi Ruang Drone Kingdom	106
Tabel 20 Kebutuhan Ruang Drone Kingdom.....	108
Tabel 21 konsep desain	108
Tabel 22 Fabel fungsi ruang.....	108