

# KEBUTUHAN ALAT PESERTA

## BIDANG LOMBA: PROTOTYPE MODELLING

No.	Nama Alat	Spesifikasi		Jumlah	Satuan
		Model	Ukuran		

### MESIN

1	Mesin Milling	Vertikal, Konvensional, Non DRO		1	unit
2	Mesin Bubut	Kovensional, Non DRO		1	unit
3	Mesin Compressor			1	unit
4	Spray Booth		50 cm x 50 cm x 50 cm	1	unit
5	Vacuum Cleaner			1	unit
6	Hand Drill	Electric/ battery		1	unit

### AKSESORIS MESIN

1	Ragum presisi mesin milling	Long Open Jaw with swivel base	200 mm	1	unit
2	Parallel Block	Ground Parallels	14-50 mm	1	set
3	Semprotan angin/ Air duster	Rated Pressure < 100 psi	11 cm	1	unit
4	Selang Angin	Recoil Hose	8 mm x 5 mm x 7,5 mm	1	pcs
5	Pahat Bubut HSS	Krisbow		1	set
6	Mata bor	HSS Twist Drill	Dia. 2,3,4,5,6,7,8,9,10,11,12,13 mm	1	set
7	Mata bor	HSS Twist Drill	dia. 3 mm	1	pcs
8	Mata bor	HSS Twist Drill	dia. 4 mm	1	pcs
9	Mata bor	HSS Twist Drill	dia. 5 mm	1	pcs
10	Mata bor	HSS Twist Drill	dia. 6 mm	1	pcs
11	Mata bor	HSS Twist Drill	dia. 7 mm	1	pcs
12	Mata bor	HSS Twist Drill	dia. 8 mm	1	pcs
13	Mata bor	HSS Twist Drill	dia. 9 mm	1	pcs
14	Mata bor	HSS Twist Drill	dia. 10 mm	1	pcs
12	Mata bor	HSS Twist Drill	dia. 11 mm	1	pcs
13	Mata bor	HSS Twist Drill	dia. 12 mm	1	pcs
14	Mata bor	HSS Twist Drill	dia. 13 mm	1	pcs
15	End Mill	Finishing 2 flute long type	dia. 3 mm	1	pcs
16	End Mill	Finishing 2 flute long type	dia. 4 mm	1	pcs
17	End Mill	Finishing 2 flute long type	dia. 6 mm	1	pcs
18	End Mill	Finishing 2 flute long type	dia. 8 mm	1	pcs
19	End Mill	Finishing 2 flute long type	dia. 10 mm	1	pcs
20	End Mill	Finishing 2 flute long type	dia. 12 mm	1	pcs
21	End Mill	Finishing 2 flute long type	dia. 16 mm	1	pcs
22	End Mill	Finishing 2 flute long type	dia. 20 mm	1	pcs

### PERALATAN KERJA BANGKU

1	Meja Kerja	Rangka Besi	150 cm x 90 cm x 90 cm	1	unit
2	Meja Perata	Marmor Rangka Besi	400 mm x 300 mm x 80 mm	1	unit
3	Ragum kerja bangku	Besi Tuang	5 in.	1	unit
4	Stand Gambar			1	pcs

### PERALATAN PEMODELAN CAD

1	Meja dan Kursi Komputer			1	set
2	Komputer laptop/notebook		min. Prosesor I5 7thGen, RAM 8 GB, VGA 2 MB	1	set
3	Printer	Epson		1	set

### PERALATAN SOFTWARE DAN IT

1	Operating System	Windows 10	64 bit	1	apps
2	CAD System	Autodesk Fusion 360	Versi 2021	1	pac.
3	PDF Reader	Adobe Reader		1	apps

4	Virtual Meeting	Zoom		1	apps
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**PERALATAN K3LH DAN KEBERSIHAN**

1	P3K			1	box set
2	Topi / Helm			1	pcs
3	Kacamata Safety			1	pcs
4	Masker N95	3M	N95	1	pcs
5	Baju Kerja / Warpack		Custom		
6	Sarung tangan	3M	Rubber, Waterproof	1	pcs
7	Sepatu Safety			1	set
8	Sapu			1	pcs
9	Pengki			1	pcs
10	Kantong Plastik Sampah			1	lembar
11	Tempat Sampah			1	pcs

**PERKAKAS TANGAN**

1	Cutter Acrylic Glass			1	pcs
2	Kuas		3"	1	pcs
3	Pahat Lurus			1	unit
4	Pahat radius			1	set
5	Pahat radius dalam			1	unit
6	Serutan Kayu			1	pcs
7	Jangka Besi			1	set
8	Tang			1	set
9	Pisau Ukir			1	pcs
10	Mistar Baja			1	pcs
11	Obeng (+/-)			1	pcs
12	Penggaris Double Siku			1	pcs
13	Jangka Pensil			1	pcs
14	Kikir tangan (Kayu/Besi)	Kasar		1	pcs
15	Kikir tangan (Kayu/Besi)	Sedang		1	pcs
16	Kikir tangan (Kayu/Besi)	Halus		1	pcs
17	Gergaji tangan Kayu			1	pcs
18	Gergaji tangan Besi			1	pcs
20	Pensil	2H		1	pcs
21	Stabilo			1	pcs
22	Penggaris Besi		300 mm	1	pcs
22	Kape Radius	Custom	R 3	1	pcs
23	Kape Radius	Custom	R 5	1	pcs

**ALAT UKUR**

1	Vernier Caliper	Manual	200 mm	1	unit
2	Vernier Caliper	Manual	300 mm	1	unit
3	Dept Gauge	Manual	150 mm	1	unit
4	Bevel Protactor	Manual	360°	1	set
5	High Gauge	Manual	300 mm	1	unit
6	Square Gauge	Manual	90°	1	unit
7	Radius Gauge	Manual	1 - 7 mm	1	set
8	Radius Gauge	Manual	7,5 - 15 mm	1	set
9	Radius Gauge	Manual	15,5 - 25 mm	1	set

**PERALATAN PENGIRIMAN**

1	BOX MATERIAL	Ukuran di sesuaikan dengan Produk		1	unit
2	Form Pengiriman	Bukti pengiriman dari pihak Ekspedisi		1	unit

# KEBUTUHAN BAHAN PESERTA

## BIDANG LOMBA: PROTOTYPE MODELLING

No.	Nama Alat	Spesifikasi		Jumlah	Satuan
		Model	Ukuran		
1	Chemical wood block	Raku Tool	Disesuaikan Soal	1	Set
2	Amplas Kayu/ abbrasive	3M	# 80	1	box / roll
3	Amplas Kayu/ abbrasive	3M	#120	1	box / roll
4	Amplas Kayu/ abbrasive	3M	#240	1	box / roll
5	Amplas Kayu/ abbrasive	3M	#320	1	box / roll
6	Amplas Kayu/ abbrasive	3M	#400	1	box / roll
7	Amplas Kayu/ abbrasive	3M	#600	1	box / roll
2	Cat Semprot / Spray Paint	Pilox Warna Merah	300 cc	1	Kaleng
3	Cat Semprot / Spray Paint	Pilox Warna Biru	300 cc	1	Kaleng
4	Cat Semprot / Spray Paint	Pilox Warna Kuning	300 cc	1	Kaleng
5	Cat Semprot / Spray Paint	Pilox Warna Hitam	300 cc	1	Kaleng
6	Cat Semprot / Spray Paint	Pilox Warna Putih	300 cc	1	Kaleng
7	Cat Semprot / Spray Paint	Pilox Warna Silver	300 cc	1	Kaleng
8	Cat Semprot / Spray Paint	Pilox Warna Abu - Abu	300 cc	1	Kaleng
9	Cat Semprot / Spray Paint	Dasar / Surfacer	300 cc	2	Kaleng
10	Triplek			1	Plek
11	Super Glue	Adhesive		1	Pcs
12	Isolasi Kertas			1	Pcs
13	Double Tape			1	Pcs
14	Screw			1	Set
12	Kain Lap (Majun)			1	bal
13	Dempul			1	pcs
14	Pengeras Dempul			1	pcs
15	Card Case		A4	1	lembar
16	Kertas A4	HVS	A4	10	lembar
17	Kertas A3	HVS	A3	10	lembar