

LAMPIRAN-LAMPIRAN

Lampiran 1 Lembar REBA

REBA Employee Assessment Worksheet

based on Technical note: Rapid Entire Body Assessment (REBA), Hignett, McAtamney, Applied Ergonomics 31 (2000) 201-205

A. Neck, Trunk and Leg Analysis

Step 1: Locate Neck Position
 +1 $2-20^\circ$ $+2$ $25^\circ+$
 In extension
 Step 1a: Adjust...
 If neck is twisted: +1
 If neck is side bending: -1
 Neck Score

Step 2: Locate Trunk Position
 In extension
 0° -1 $+2$ $0-20^\circ$ $+3$ $20-60^\circ$ $+4$ $60^\circ+$
 Step 2a: Adjust...
 If trunk is twisted: +1
 If trunk is side bending: +1
 Trunk Score

Step 3: Legs
 +1 $+2$ $30-60^\circ$ $+60$ $+2$
 Adjust:
 Add +1
 Add +2
 Leg Score

Step 4: Look-up Posture Score in Table A
 Using values from steps 1-3 above, locate score in Table A
 Posture Score A

Step 5: Add Force/Load Score
 If load = 11 lbs: +0
 If load 11 to 22 lbs: +1
 If load > 22 lbs: +2
 Adjust: If shock or rapid build up of force: add +1
 Force/Load Score

Step 6: Score A, Find Row in Table C
 Add values from steps 4 & 5 to obtain Score A.
 Find Row in Table C.
 Score A

SCORES

Table A

		Neck												
		1				2				3				
Trunk Posture Score	Legs	1	2	3	4	1	2	3	4	1	2	3	4	
	1	1	1	2	3	4	1	2	3	4	3	3	5	6
	2	2	2	3	4	5	3	4	5	6	4	5	6	7
	3	2	4	5	6	4	5	6	7	5	6	7	8	9
	4	3	5	6	7	5	6	7	8	6	7	8	9	
5	4	6	7	8	6	7	8	9	7	8	9			

Table B

		Lower Arm						
		1			2			
Upper Arm Score	Wrist	1	1	2	3	1	2	3
	1	1	1	2	2	1	2	3
	2	1	1	2	3	2	3	4
	3	3	3	4	5	4	5	5
	4	4	4	5	5	5	6	7
	5	6	7	8	8	7	8	8
6	7	8	8	8	8	9	9	

Table C

Score A (Score from Table A + Head/Force score)	Score B (Table B value coupling score)											
	1	2	3	4	5	6	7	8	9	10	11	12
1	1	1	1	2	3	3	4	5	6	7	7	7
2	1	2	2	3	4	4	5	6	6	7	7	8
3	2	3	3	3	4	5	6	7	7	8	8	8
4	3	4	4	4	5	6	7	8	8	9	9	9
5	4	4	4	5	6	7	8	8	9	9	9	9
6	5	5	5	6	7	8	8	9	9	10	10	10
7	7	7	7	8	9	9	9	10	10	11	11	11
8	8	8	8	9	10	10	10	10	10	11	11	11
9	9	9	9	10	10	10	11	11	11	12	12	12
10	10	10	10	11	11	11	11	12	12	12	12	12
11	11	11	11	11	12	12	12	12	12	12	12	12
12	12	12	12	12	12	12	12	12	12	12	12	12

Table C Score + **Activity Score** = **Final REBA Score**

B. Arm and Wrist Analysis

Step 7: Locate Upper Arm Position:
 +1 $+2$ $+2$ 20° 20° $20^\circ+$ $20-45^\circ$ $45-90^\circ$ $+3$ $90^\circ+$ $+4$
 In extension
 Step 7a: Adjust...
 If shoulder is raised: +1
 If upper arm is abducted: +1
 If arm is supported or person is leaning: -1
 Upper Arm Score

Step 8: Locate Lower Arm Position:
 +1 $+2$
 Lower Arm Score

Step 9: Locate Wrist Position:
 +1 $+2$
 Step 9a: Adjust...
 If wrist is bent from midline or twisted: Add +1
 Wrist Score

Step 10: Look-up Posture Score in Table B
 Using values from steps 7-9 above, locate score in Table B
 Posture Score B

Step 11: Add Coupling Score
 Well fitting Handle and mid rang power grip, good: +0
 Acceptable but not ideal hand hold or coupling acceptable with another body part, fair: +1
 Hand hold not acceptable but possible, poor: +2
 No handles, awkward, unsafe with any body part, Unacceptable: +3
 Coupling Score

Step 12: Score B, Find Column in Table C
 Add values from steps 10 & 11 to obtain Score B. Find column in Table C and match with Score A in row from step 6 to obtain Table C Score.
 Score B

Step 13: Activity Score
 +1 1 or more body parts are held for longer than 1 minute (static)
 +1 Repeated small range actions (more than 4x per minute)
 +1 Action causes rapid large range changes in postures or unstable base

Task name: _____ Reviewer: _____ Date: _____

This tool is provided without warranty. The author has provided this tool as a simple means for applying the concepts provided in REBA.

© 2004 Nova Consulting, Inc.

provided by Practical Ergonomics
 rbarker@ergosmart.com (816) 444-1667

Lampiran 2 Surat Permohonan Izin Observasi dan Penelitian



SURAT PERMOHONAN IZIN PENELITIAN
Nomor : 053/UEU/BAA-KHI/PIP/VIII/2021

Kepada Yth.
Kepala HSE & Security Departemen
PT. Mitsubishi Motor Kramayudha Indonesia
Bekasi, Jawa Barat

Sehubungan dengan kewajiban untuk memenuhi tugas matakuliah Skripsi sebagai persyaratan untuk meraih gelar Sarjana, bersama dengan surat ini, mohon dengan hormat Bapak/Ibu berkenan memberikan izin Penelitian di PT. Mitsubishi Motor Kramayudha Indonesia , kepada mahasiswa:

Nama : Dwilen Picesa
NIM : 20160301315
Fakultas : Ilmu Ilmu Kesehatan
Program Studi : Kesehatan Masyarakat
Telp : 081283992002

Adapun pelaksanaan Pengambilan Data tersebut pada bulan Agustus 2021.
Demikian atas bantuan dan kerjasamanya, diucapkan terima kasih.

Bekasi, 22 Agustus 2021

Ari Wibowo S. 
Biro Administrasi Akademik

Lampiran 3 Surat Keterangan Lolos Kaji Etik



**DEWAN PENEGAKAN KODE ETIK UNIVERSITAS ESA
UNGGUL KOMISI ETIK PENELITIAN**
Jl. Arjuna Utara No.9 Kebon Jeruk Jakarta Barat 11510
Telp. 021-5674223 email: dpke@esaunggul.ac.id

Nomor : 0301-21.301 /DPKE-KEP/FINAL-EA/UEU/VIII/2021

KETERANGAN LOLOS KAJI ETIK
ETHICAL APPROVAL

Komisi Etik Penelitian Universitas Esa Unggul dalam upaya melindungi hak asasi dan kesejahteraan subyek penelitian kesehatan, telah mengkaji dengan teliti protokol berjudul:

**GAMBARAN TINGKAT RISIKO POSTUR TUBUH PADA STASIUN KERJA
SUB ASSY PANEL INSTRUMENT DEPARTEMEN ASSEMBLY PT.
MITSUBISHI MOTORS KRAMA YUDHA INDONESIA (MMKI) TAHUN 2021**

Peneliti Utama : Dwilen Picesa
Pembimbing : Hendri Amirudin S.T., M.KKK
Nama Institusi : Universitas Esa Unggul

dan telah menyetujui protokol tersebut di atas.

Jakarta, 31 Agustus 2021

Plt. Ketua

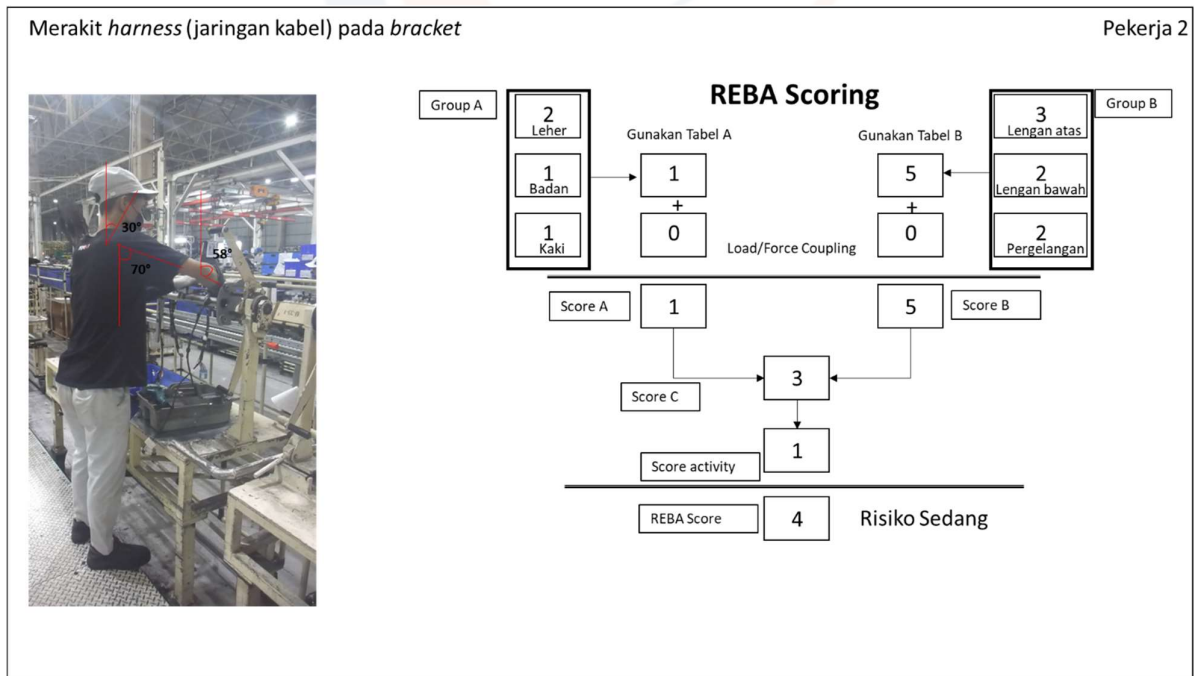
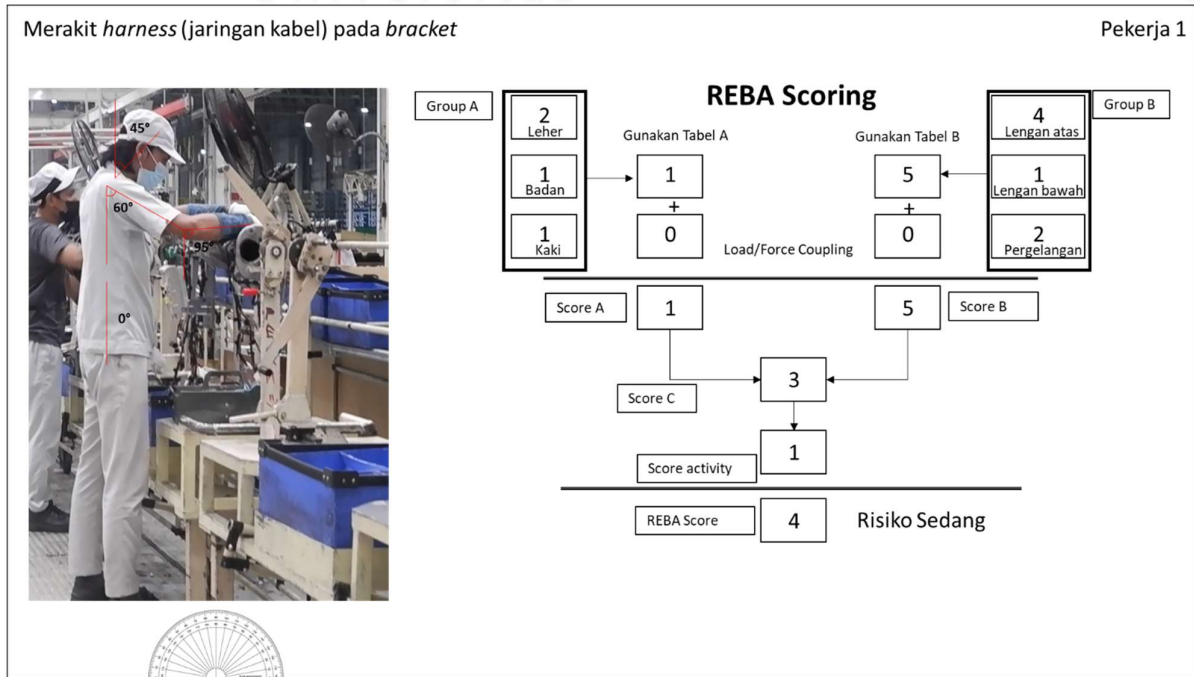
Dr. Aprilita Rina Yanti Eff, M.Biomed., Apt

* *Ethical approval* berlaku satu tahun dari tanggal persetujuan.

** Peneliti berkewajiban

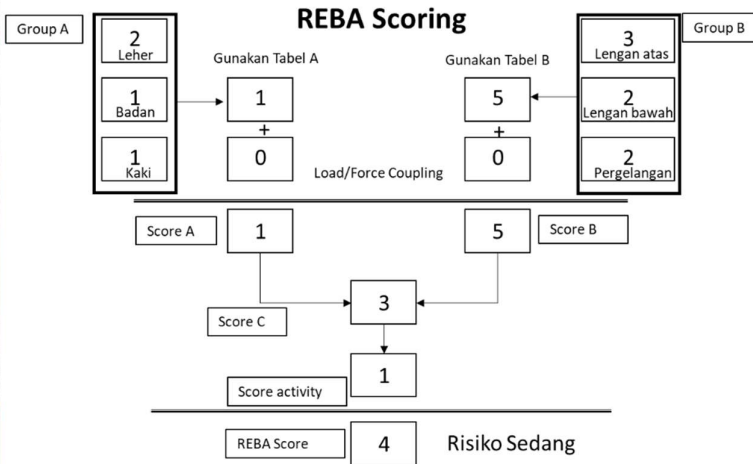
1. Menjaga kerahasiaan identitas subyek penelitian
2. Memberitahukan status penelitian apabila:
 - a. Setelah masa berlakunya keterangan lolos kaji etik, penelitian masih belum selesai, dalam hal ini *ethical approval* harus diperpanjang
 - b. Penelitian berhenti di tengah jalan
3. Melaporkan kejadian serius yang tidak diinginkan (*serious adverse events*).
4. Peneliti tidak boleh melakukan tindakan apapun pada subyek sebelum penelitian lolos kaji etik dan *informed consent*.

Lampiran 4 Hasil Analisis Data



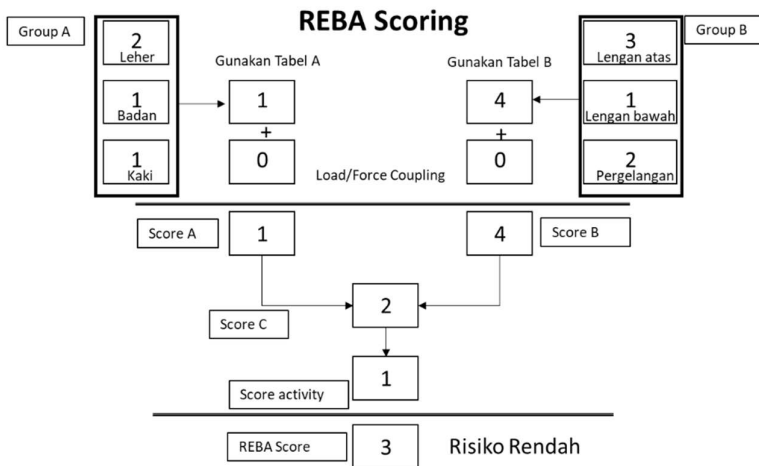
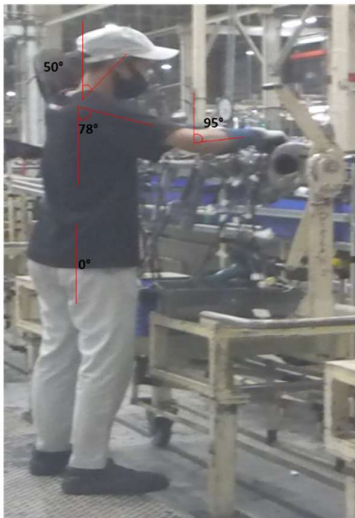
Merakit harness (jaringan kabel) pada bracket

Pekerja 3



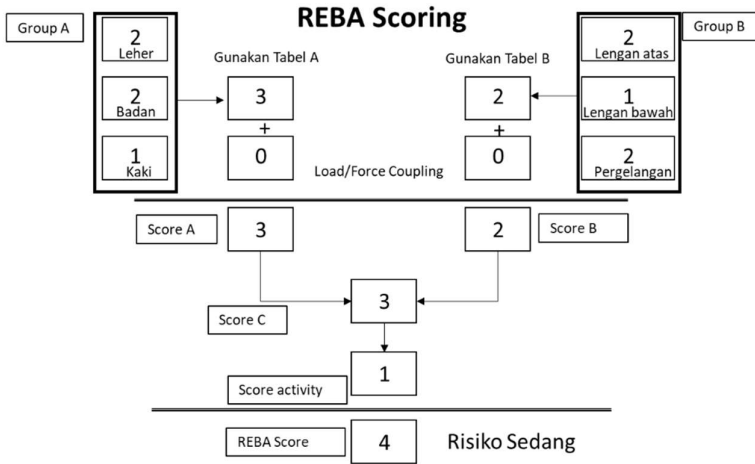
Merakit harness (jaringan kabel) pada bracket

Pekerja 4



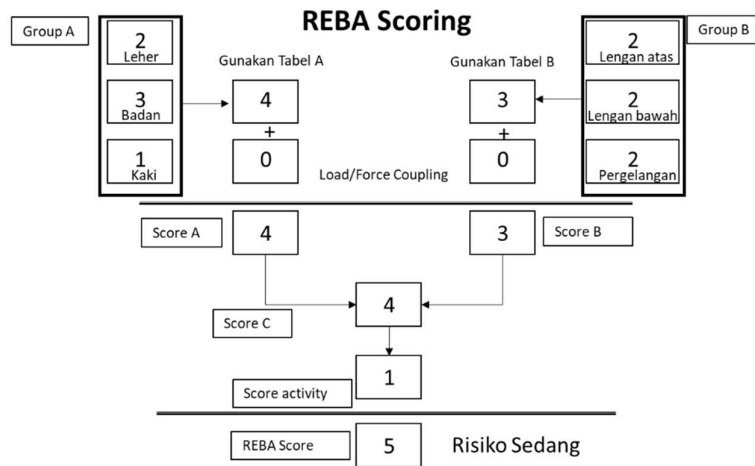
Menyambungkan kabel

Pekerja 1



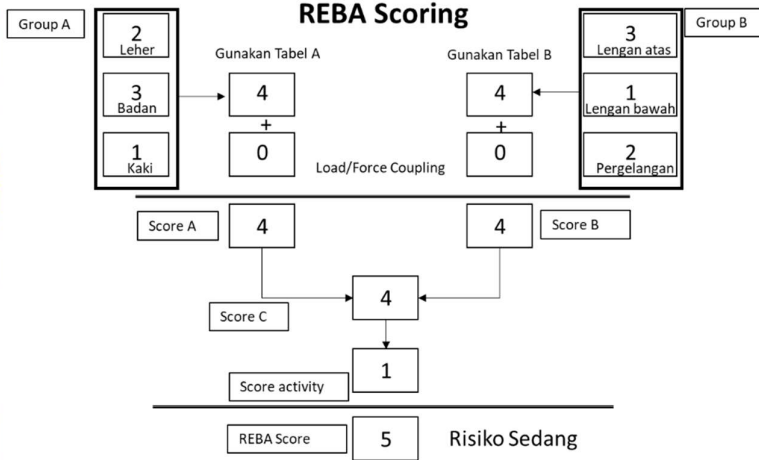
Menyambungkan Kabel

Pekerja 2



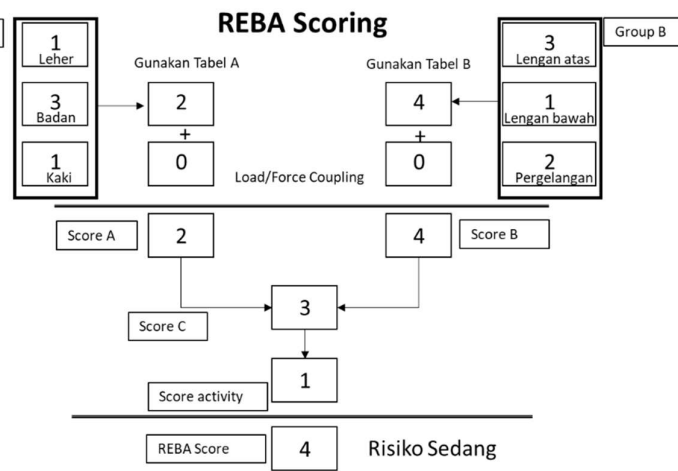
Menyambungkan Kabel

Pekerja 3



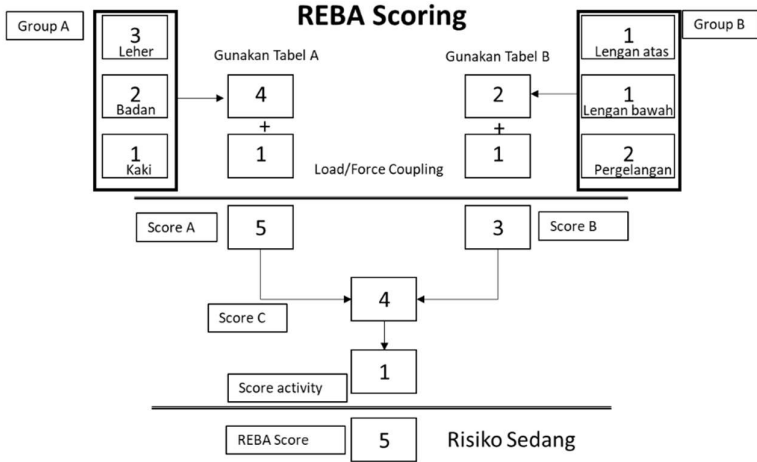
Menyambungkan Kabel

Pekerja 4



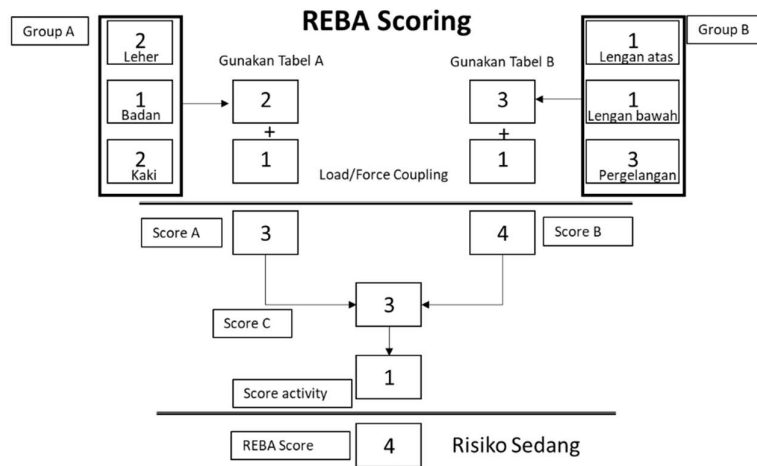
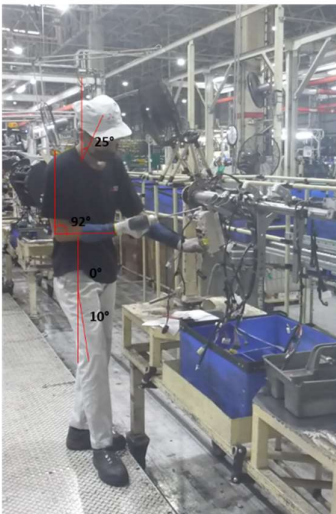
Merakit panel kelistrikan dengan menggunakan *impact*

Pekerja 1



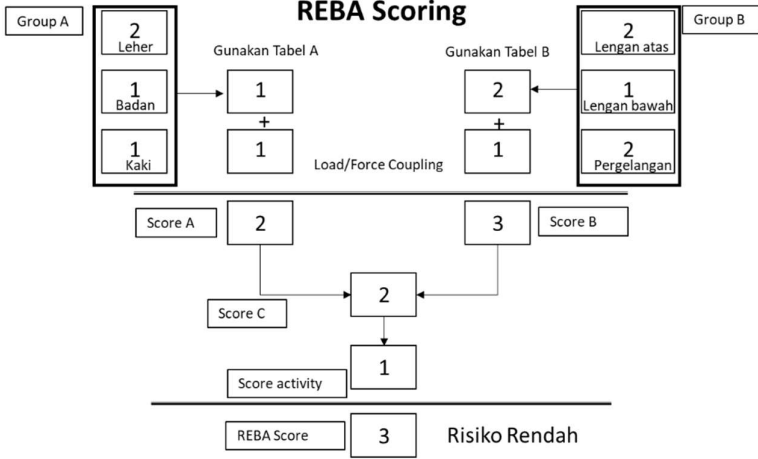
Merakit panel kelistrikan dengan menggunakan *impact*

Pekerja 2



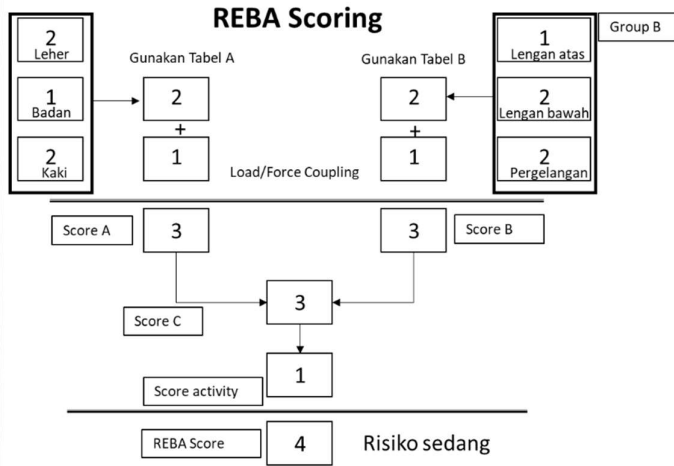
Merakit panel kelistrikan dengan menggunakan *impact*

Pekerja 3



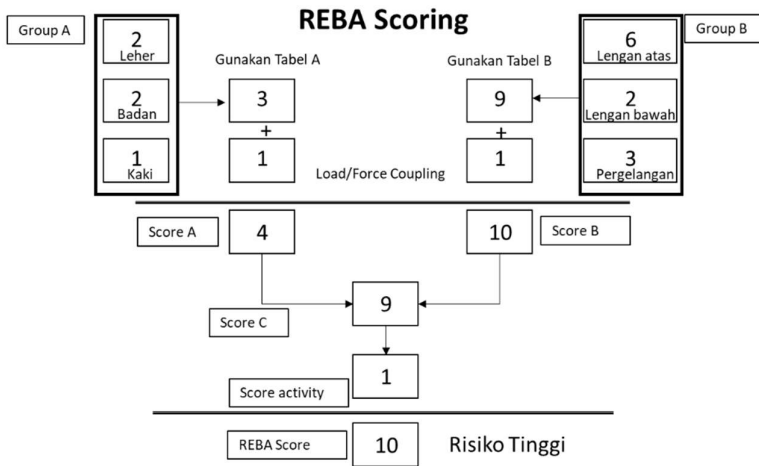
Merakit panel kelistrikan dengan menggunakan *impact*

Pekerja 4



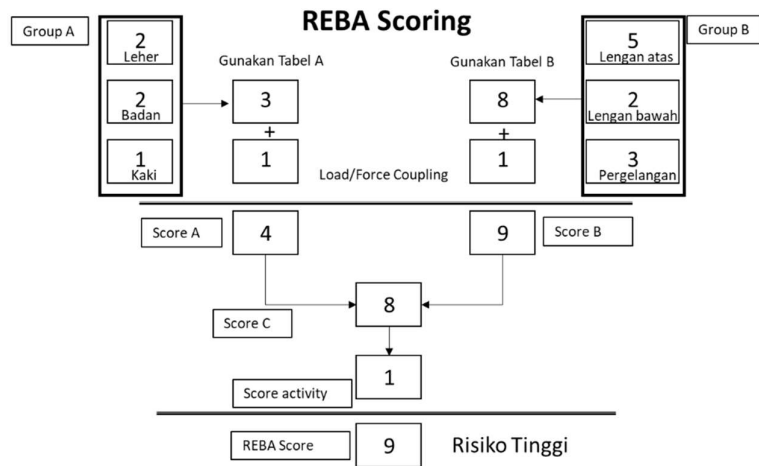
Memasang baut pengikat harness

Pekerja 1



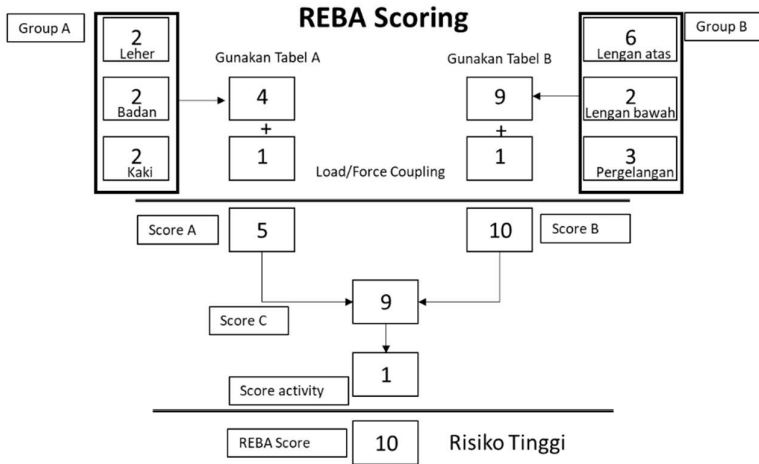
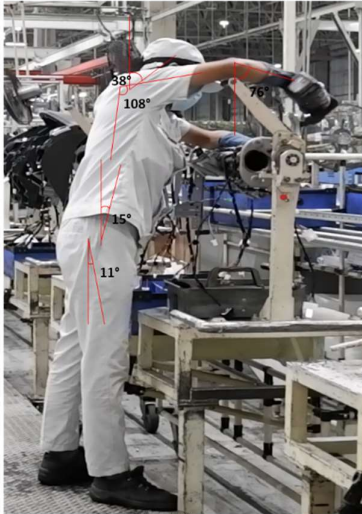
Memasang baut pengikat harness

Pekerja 2



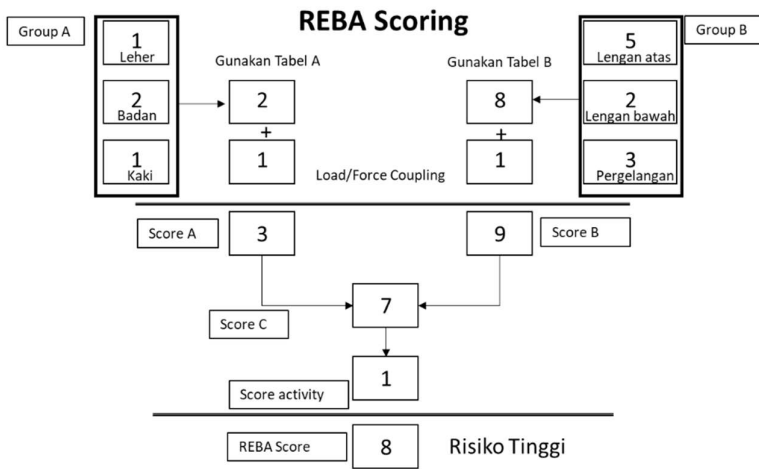
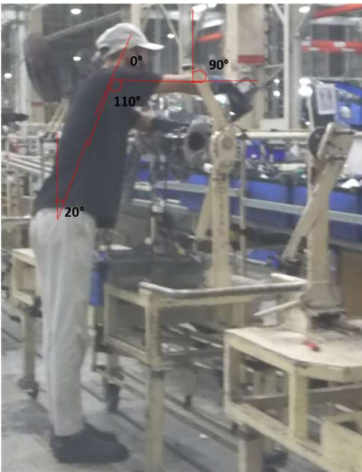
Memasang baut pengikat *harness*

Pekerja 3



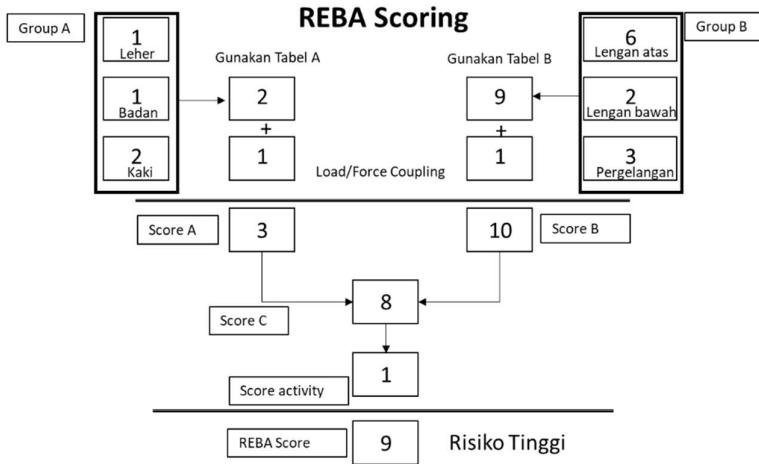
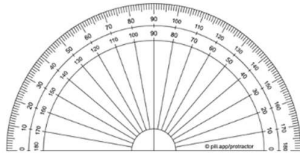
Memasang baut pengikat *harness*

Pekerja 4



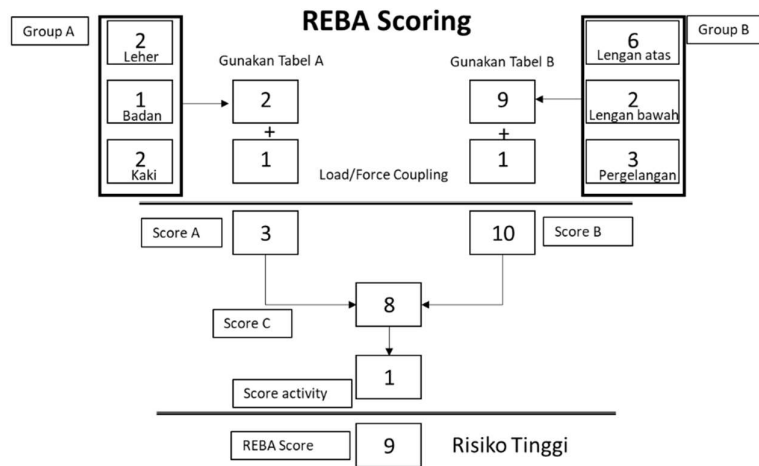
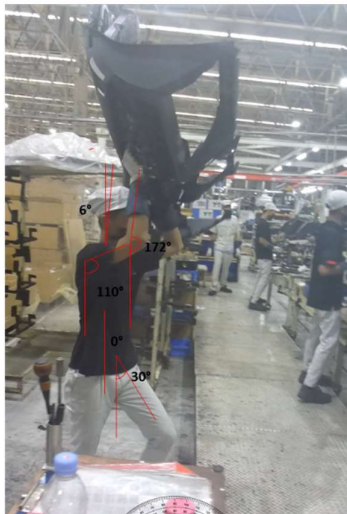
Mengambil panel *dashboard*

Pekerja 1



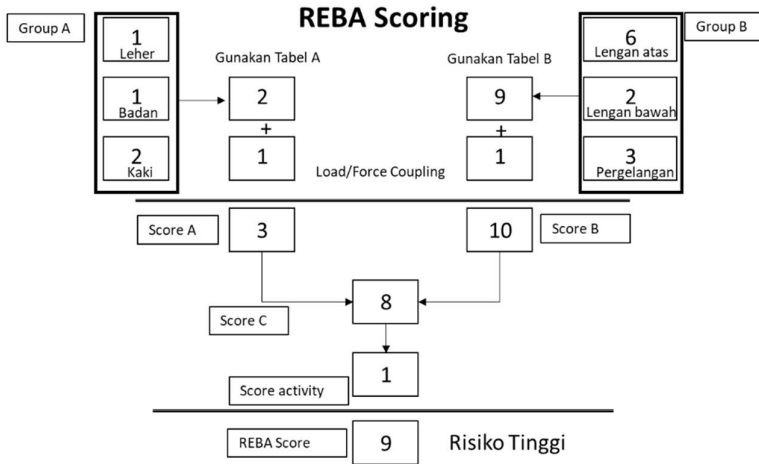
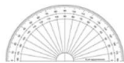
Mengambil panel *dashboard*

Pekerja 2



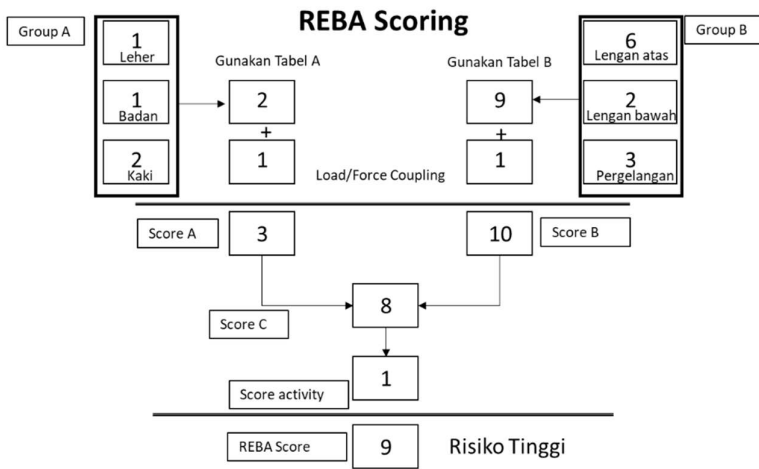
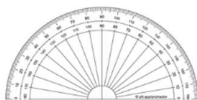
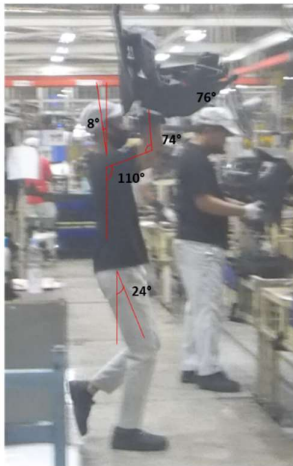
Mengambil panel *dashboard*

Pekerja 3



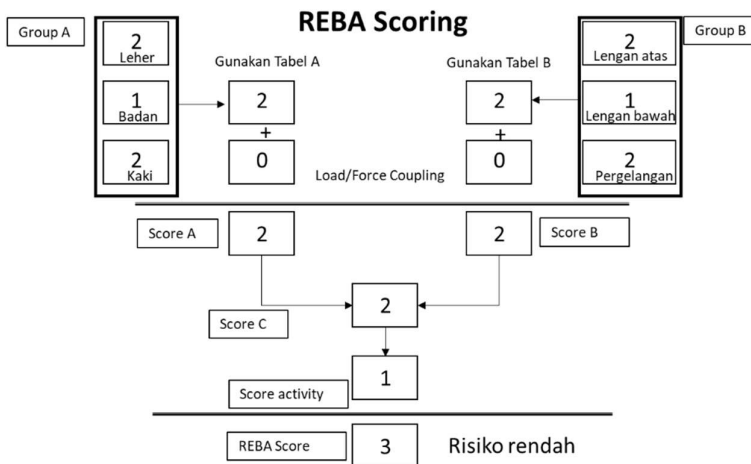
Mengambil panel *dashboard*

Pekerja 4



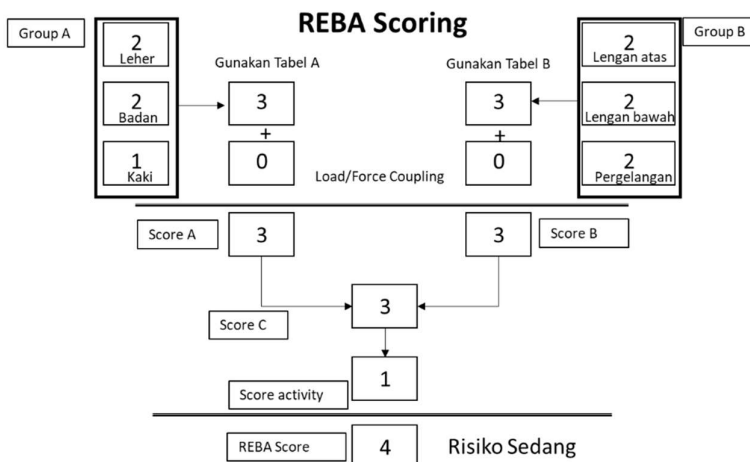
Memasang panel dashboard

Pekerja 1



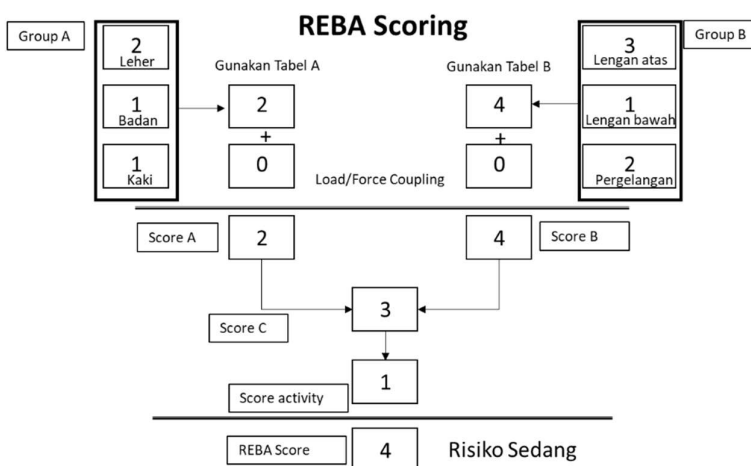
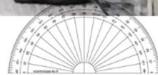
Memasang panel dashboard

Pekerja 2



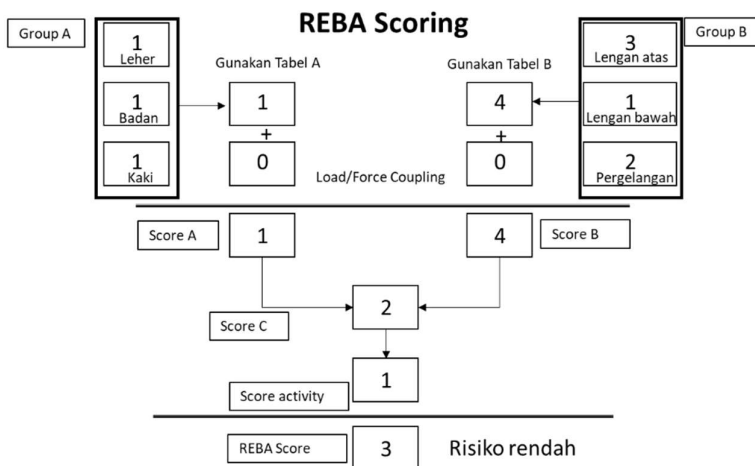
Memasang panel *dashboard*

Pekerja 3



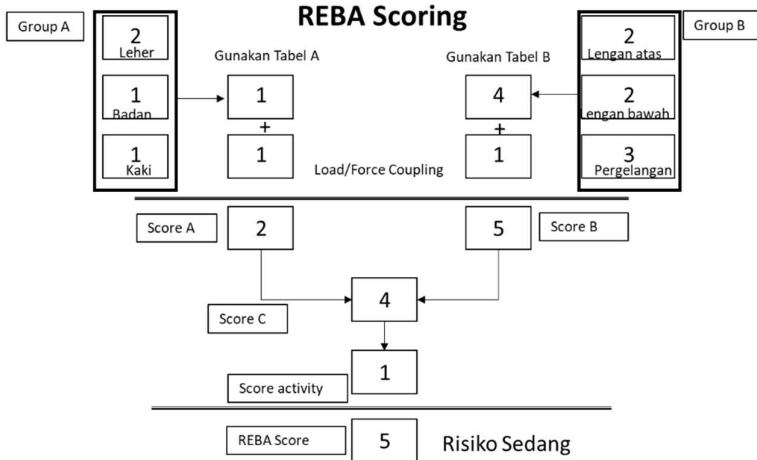
Memasang panel *dashboard*

Pekerja 4



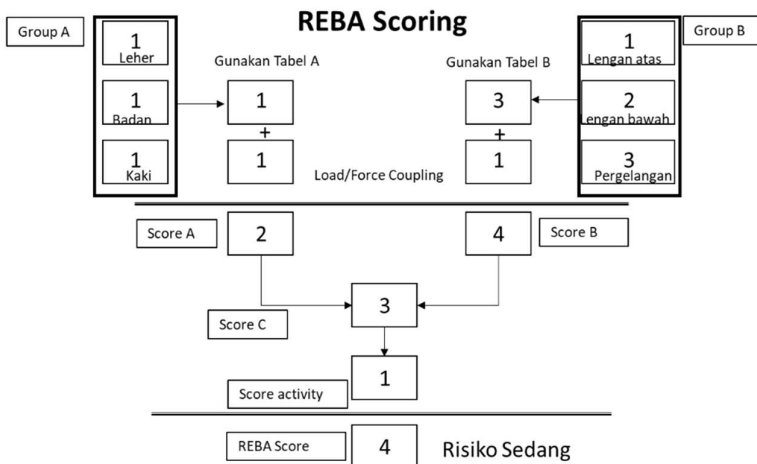
Memasang baut 1 dengan alat *impact*

Pekerja 3



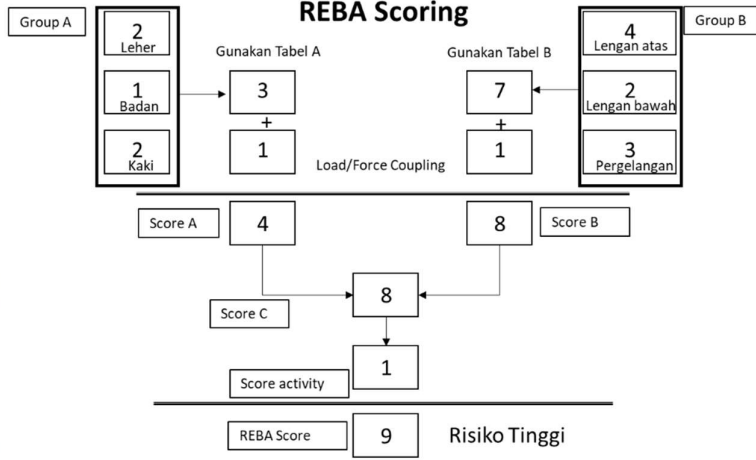
Memasang baut 1 dengan alat *impact*

Pekerja 4



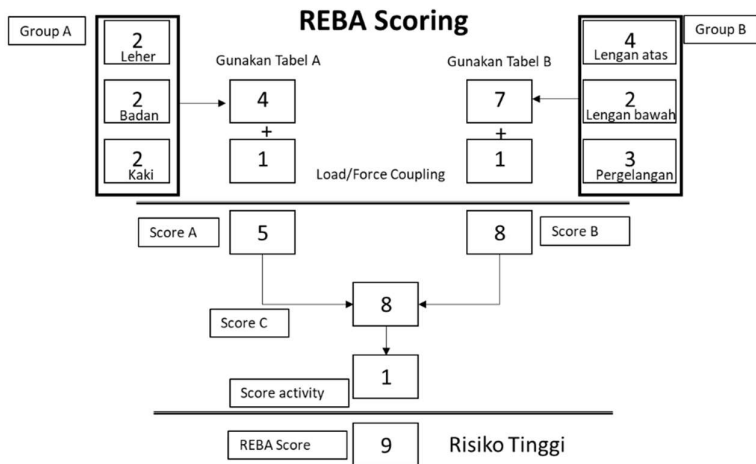
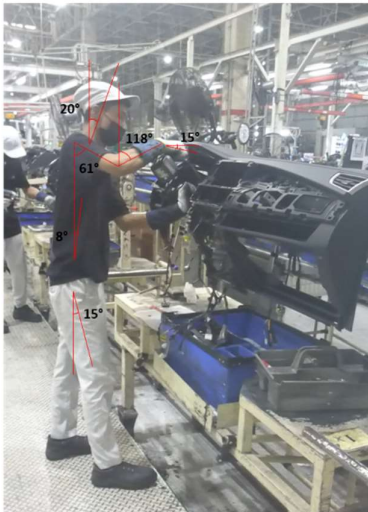
Memasangkan baut 2 dengan alat *impact*

Pekerja 1



Memasangkan baut 2 dengan alat *impact*

Pekerja 2



Memasangkan baut 2 dengan alat *impact*

Pekerja 3

