

# Meesin Kaadai 101 – Paadhukaappu matrum Karuvi Payanpaadu Vazhikaatti

## Mudhalil mukkiyam: Paadhukaappu

Closed-toed shoes avasiyam.

Safety kannadi avasiyam. Oru rendu nimidam than irundhaalum, rendu mani neram irundhaalum—safety kannadi podanum.

Neenga cutting pannalai, work pannalai, nikkaradhum illa—even appo kooda safety kannadi podanum.

## Ennaala?

Yaaravadhu pinnadi irundhu meesin on panninaal, oru aluminium thuni veliye poyitu unga mela vizhundha udane adikkum. Purinjutha?

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## Podhu Vilakkam

Naan unga ellarukum kadaikku kootitu poi, ovvoru karuvi kaatru, material eppadi clamp panna nu enru solluven.

Clamp pannuvadhu dhaan mukkiyam. Naan kaatuna apram neenga try pannanum. Nalla panninum.

Neenga neenda mudi vechurundhaal, pinnadi kattunga. Oru pennin mudi drill press-la pudichu vizhuntha incident nadandhurukku—romba aapathu.

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## Kaadaiyil irukkum Meesin-gal

- Vattam sandar (Belt Sander)
- Pattarai arival (Table Saw)
- Vattam arival (Band Saw)
- Nedu vattam arival (Horizontal Band Saw)
- Irukkum moolai arival (Compound Miter Saw)
- Uruval (Drill Press)

- Idimunai (Power Drill – ilakku & noolakku)
  - Lathe mesin (Valaiyuruval)
  - Mill mesin
  - CNC mesin
  - Thanneer vettial (Water Jet)
  - Lasar ezhuthiyal (Laser Engraver)
  - 3D aatruviyal (3D Printer)
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## **Vattam Arival (Band Saw)**

Idhu oru sadharna vattam arival—oru arivalum rendu chakkarum.

Kaigal ullae podakoodadhu—even off irundhaalum.

Mostly neenga aluminium thunigal, kambu, Lexan aadai cut pannuvenga.

Siriya thunigal cut panna **nilai vattam arival** (vertical) use pannunga—not nedu vattam arival illa moolai arival.

### **Cut pannumbodhu:**

- Vazhi kaattum paathai (guide) use pannunga
- Material tight-a pidikkunga
- Kaigal blade kitta sendra koodadhu
- Clamp illai—material-ai neenga thane push pannunga blade-kku mela.

### **Podhu vilakkam:**

- 1/8 inch-ukku mela irundhaal medhuva cut pannunga
  - Seekiram pannina blade sikiyum aagum, vasanai varum— pannakudadhu.
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## Idimunai (Power Drill)

Ilakku (corded) & Noolakku (cordless) rendu avasyum.

- Ilakku = balam adhigam, aana chuck key thevai.
- Noolakku = torque seri panna mudiyum.

Siriya torque screws/bolts kku use pannunga—strip aagakoodadhu.  
Screw strip aana, thalai odanjidum. Options:

- Drill out
- Vice grip use
- Flathead-a maathidunga

Oruvar screw strip panninaa, 50 cents fine 😊

### Bit insert pannumbodhu:

- Full-a amuthanum
- Tight-a pottu vidunga  
Illati bit veliye poyidum.

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## Nedu Vattam Arival (Horizontal Band Saw)

Safe-aana mesin.

- Horizontal/vertical use panna mudiyum—but vertical lock panna mentor kekanum.
- Clamp built-in irukku—use pannunga.

Edhuka nalladhu:

- Thick material cut
- Nedu, straight cut

Seekiram illa slow-a irundhaalum porumaiya irunga—it cut pannidum, auto off aagidum.

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## Moolai Arival (Compound Miter Saw)

Shop-il mudhalil aapaththana karuvi idhu. Oru viral-aiyum udane cut pannidum.  
Steel rod finger-il porantha accident nadandhurukku—respect pannunga.

Use pannunga:

- Straight cuts
- Thick aluminium bars
- Stock material

Clamp avasiyam. Siriya thunigal adhigam aapathu—veliye poyidum.  
Kerf (arival saapidaum edam) note pannunga.

**Steps:**

- Trigger pull
- Melumel slow-a cut
- Finish pannina apram trigger release
- Blade lock pannunga, unplug pannunga.

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## Otruval (Jigsaw)

Use pannunga: aluminium aadai, Lexan, plywood, drywall.  
Drill battery-yae use pannum.

Mode 0 = aluminium, Mode 1 = Lexan.

Table-la vechu use pannunga, melirundhu thalli (push down).  
C-clamp, F-clamp use pannunga.

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## Uruval (Drill Press)

Use pannunga:

- Nerayaana thirandha hole
- Bearing, thuliyamana parts

Kai-la pidikka koodadhu—uruval vice use pannunga.  
Siriya parts—clamp pannanum.

**Bits:**

- Periya bit = medhuva
  - Siriya start → mel mel perisa poganum
  - Aalum stop adjust pannunga
  - Bit lock secure pannunga
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**Mullai Azhithal (De-Burring)**

Drill holes sharp edges kodukkum.  
Deburring karuvi illa periya drill bit use pannunga.  
Sharp irundhaal inspector othhuka mataar.

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**Manal Sandar (Sander)**

Use pannunga:

- Mullai azhithal
- Siriya material remove pannanga

Periya remove panna koodadhu—belt snap aagum.

Finishing use:

- Edge clean

- Corner smooth
- Cut smooth

Safety: Screwdriver tip-first kudukka koodadhu—handle-first kudunga.

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## **Siridhuval (Dremel)**

Station use pannunga:

- Fine sanding
- Siria drilling
- Edge cleaning

Handheld siridhuval kuda irukku.

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## **Kadaisi Paadhukaappu Kurippugal**

- Safety kannadi must
- Neenda mudi kattunga
- Doubt irundhaal mentor kitta kelunga
- Karuvi puriyama use panna koodadhu
- Tool try pannina apram: purpose, clamp seyyum murai, safety purinjirukkanum

Perfect-a vendam—but safe-a irukkanum, doubt irundhaal kelvi kekkanum.

Rules follow panninaa—safe-a build pannuvom, inspection pass pannuvom, field-ku seekiram pogalam.