

The robot has 109 minutes to lose.

A nine-minute charge creates a strong battery ratio. The whole shift must still fit inside the remaining margin.

24 hours × 90 runtime minutes

90 runtime + 9 charging minutes

Ideal runtime → 21 hours 49 minutes

20-hour floor → Leaves about 109 minutes

Status → Derived target budget; not observed downtime

Fast charging starts the shift test. It does not finish it.

The specification ends. The shift begins.

A 24-hour day has two very different kinds of non-productive time.

BATTERY CLOCK

2h 11m

Ideal charging

Perfect 90/9 rhythm

Known arithmetic

SHIFT CLOCK

109 min

Docking + queues

Faults + waiting

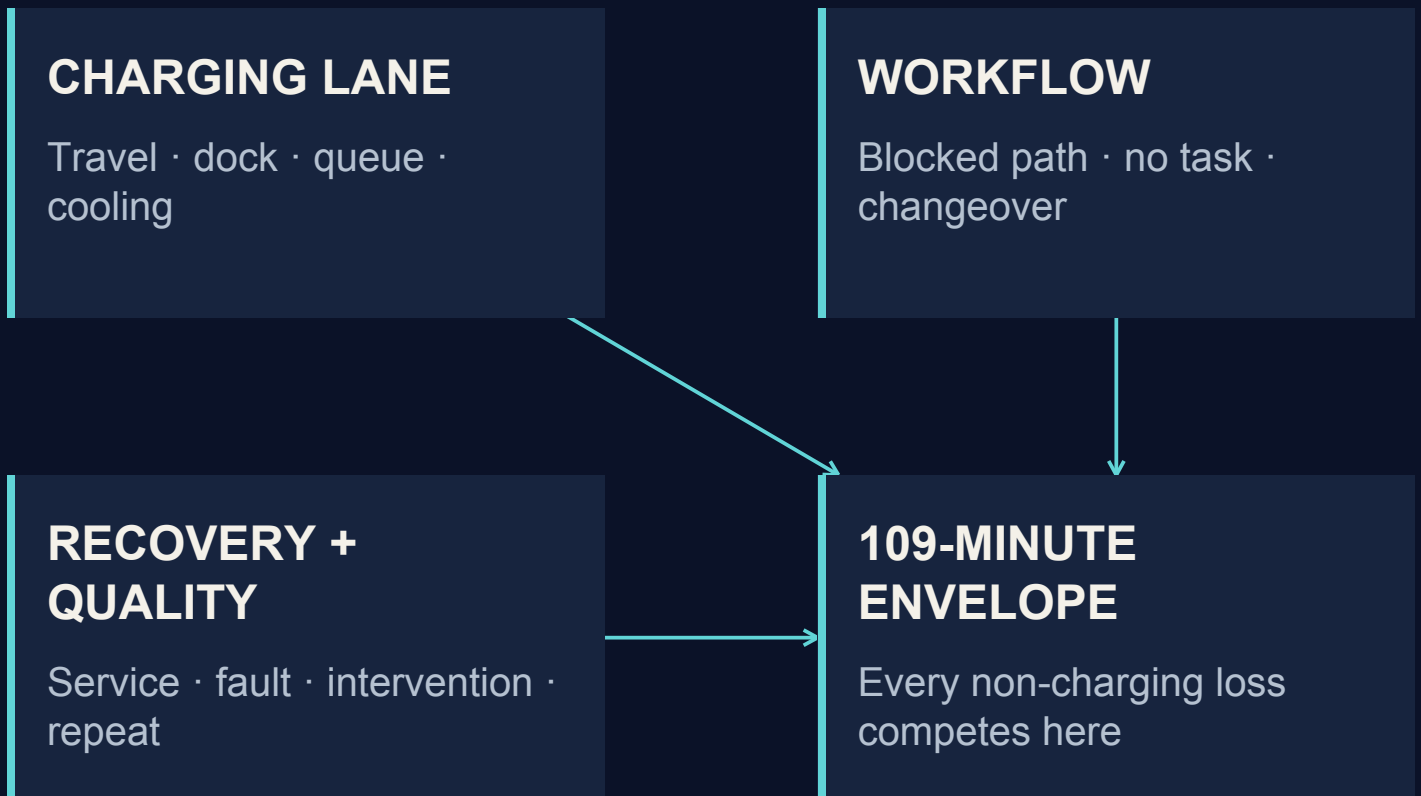
Rejected work + recovery

The 109 minutes are a boundary under ideal assumptions, not a measured customer result.

The small gold envelope carries every loss outside ideal charging.

Three systems spend the same 109 minutes.

A faster battery can move the bottleneck into coordination, workflow, recovery or quality.



The diagram groups losses for measurement. It does not assign observed minutes to any category.

The design unit is the shift, not the robot alone.

A fleet spends the charger clock together.

Perfect staggering turns the 90/9 ratio into a simple charger-capacity bound.

ONE CHARGER · PERCENT OF CLOCK



Eleven reaches 100% before docking, variation or faults. Capacity bound only.

Ten robots leave only 9.1% theoretical slack on one charger.

Motion cannot sign the customer receipt.

Cumulative movement becomes a shift result only when time, intervention and acceptance share a ledger.

FIELD	MEASURE	WHY IT MATTERS
Scheduled time	Complete shift minutes	Fixes the denominator
Accepted work	Tasks passing customer rule	Separates motion from output
Productive time	Autonomous accepted-work minutes	Shows where the shift converted
Loss ledger	Charge, queue, fault, wait	Locates the 109 minutes
Intervention	Count, duration, reason	Prices hidden labor

Measure what the customer accepted and where the shift went.

The announcement is a target, not a shift log.

Current public evidence supports the battery mechanism. The customer result still needs complete shifts.

01**Announced**

90-minute runtime and nine-minute recharge target

02**Qualified**

Digit 5 in development; specifications preliminary

03**Pilot**

Measure uptime, throughput and reliability for 90 days

04**Accept**

Report accepted tasks and productive minutes per shift

05**Repeat**

Show normal loads, temperatures, queues and interventions

Early access is expected in H1 2027; commercial results may differ.

Keep design promise and operating proof on separate pages.

The next number is not nine.

Fast charging buys the operation a small loss budget. The customer shift decides whether it survives.

SMALL QUESTION

How fast does
the battery charge?

How much of 109 minutes survives the shift?

Measure accepted tasks per scheduled hour. Put
productive minutes and every loss beside them.

Illustrative budget · No observed Digit 5 customer shift

Watch how much of the 109 minutes the customer gets to
keep.