

Hydraulic molding machine
(Sensors: Temp, pressure, vibration, cycle)

AWS IoT core

Device registry Device shadow IoT policies and certificates MQTT message broker IoT rules engine

AWS Lambda

- Data validation
- Business logic
- ML Inference

Amazon timestream

- Store timeseries
- Sensor telemetry
- Fast querying

Amazon kinesis

- Streaming pipeline
- Optional analytics
- Scalability

Amazon SNS / SES

- Alerts(SMS /E-mail)
- Fault notifications

Amazon sagemaker

- Model training
- Optimization model endpoints

Amazon S3

- Raw IoT payloads
- Aggregated data
- Reports and backups

API Layer

API gateway Cognito(Auth & User roles)

Application / User interface

Web dashboard (S3 + cloudfront hosting)