

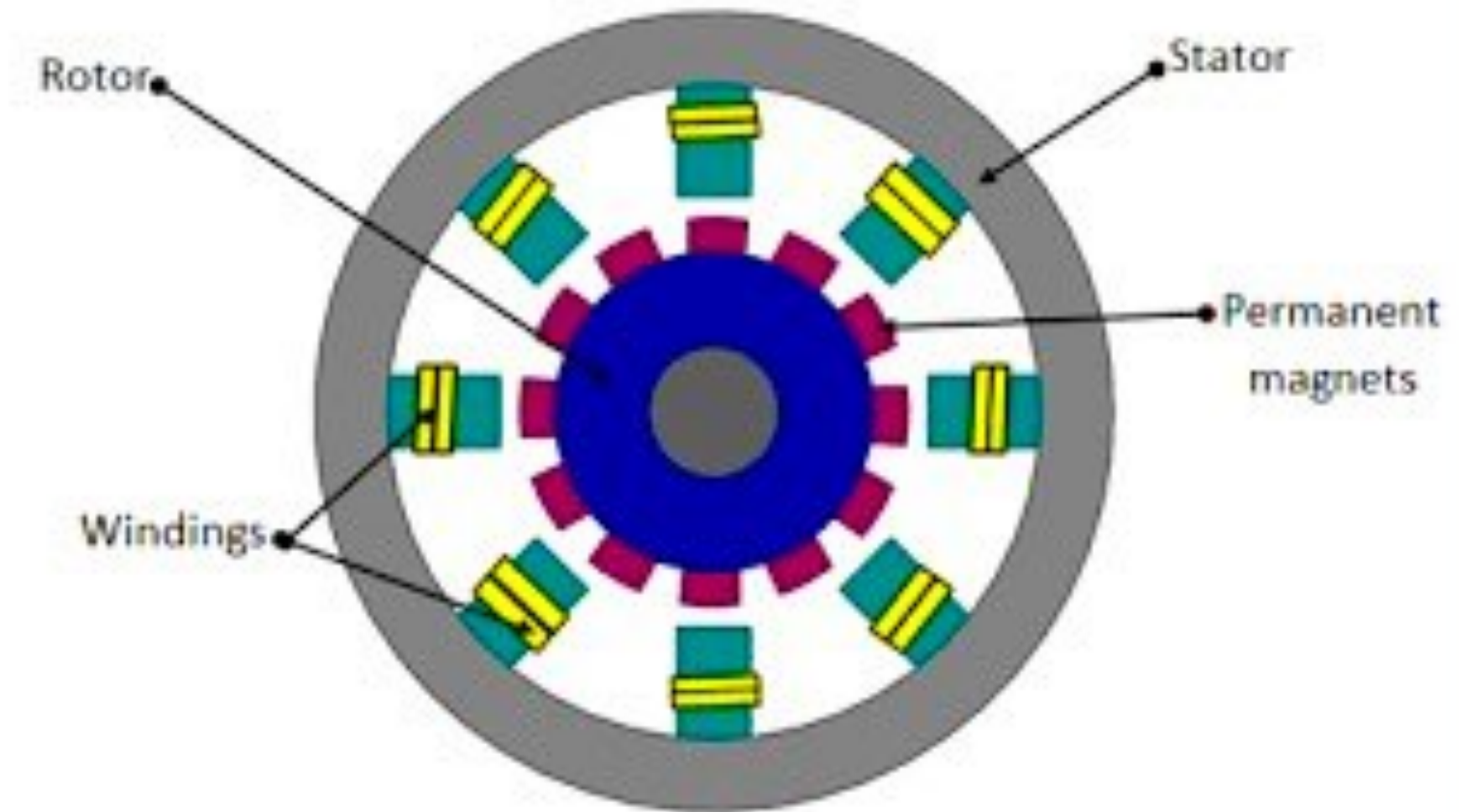
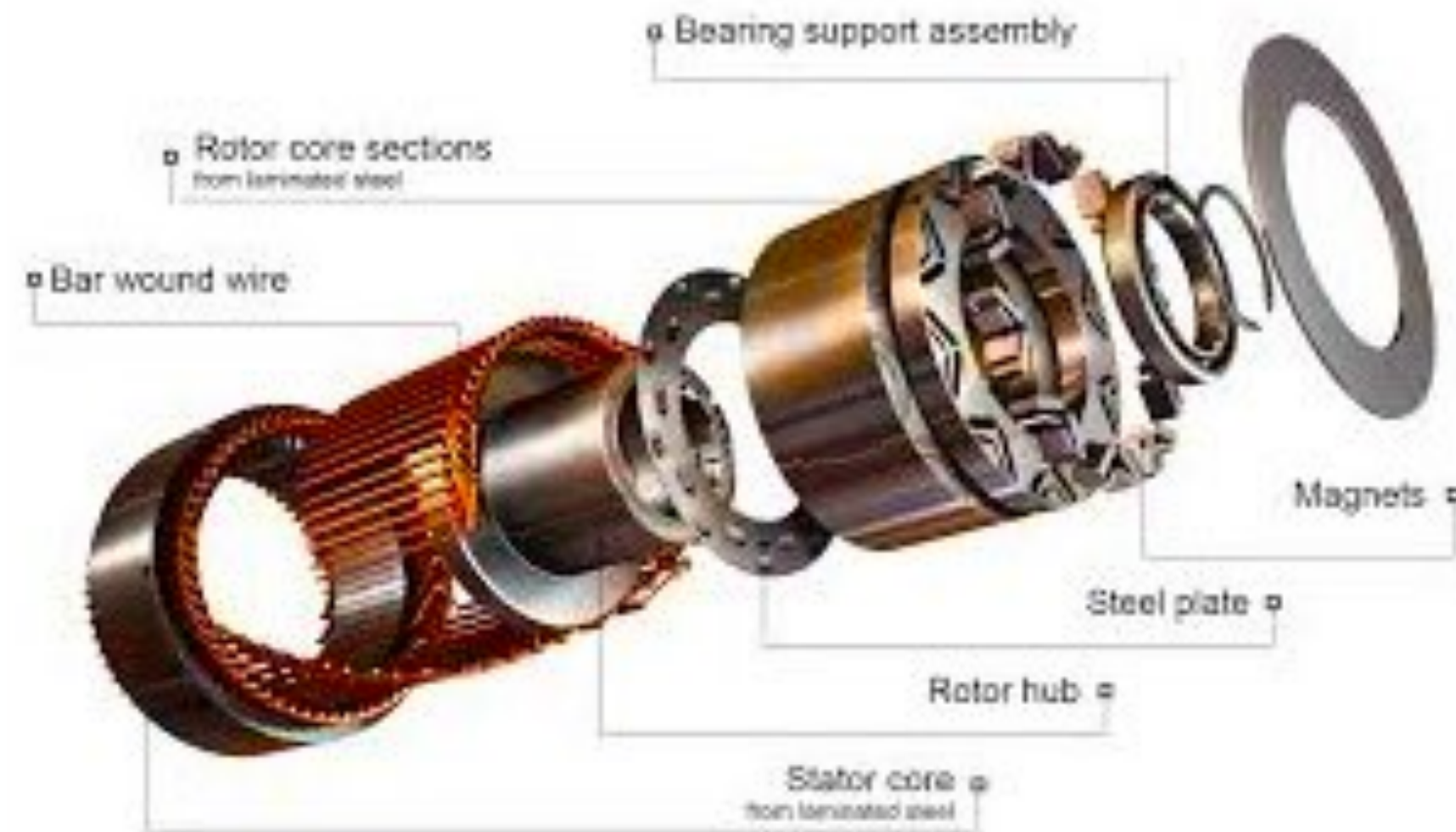
# ELECTRIC MOTOR TEMPERATURE



by Abigail Sixto

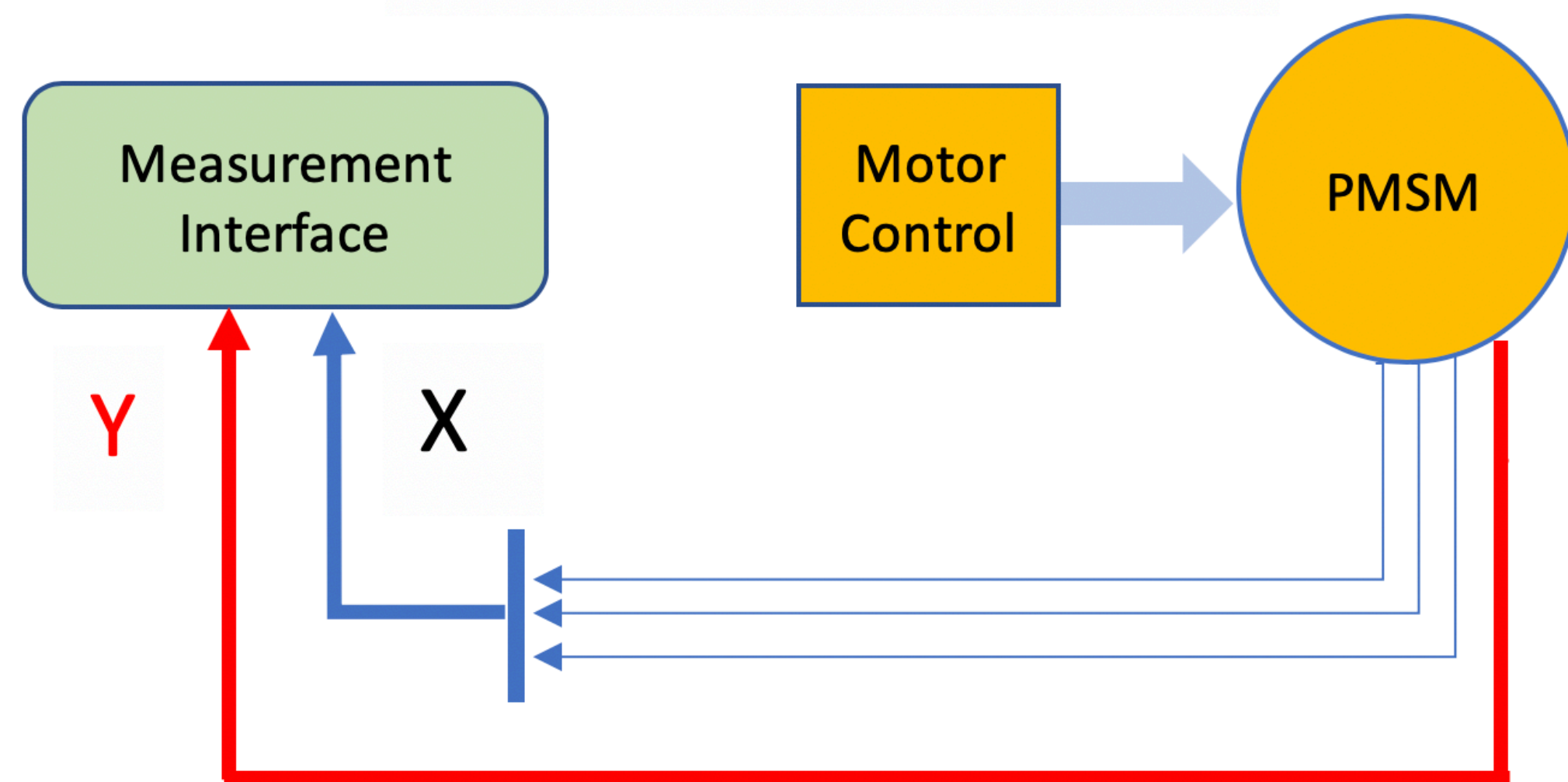


# Permanent Magnet Synchronous Motor

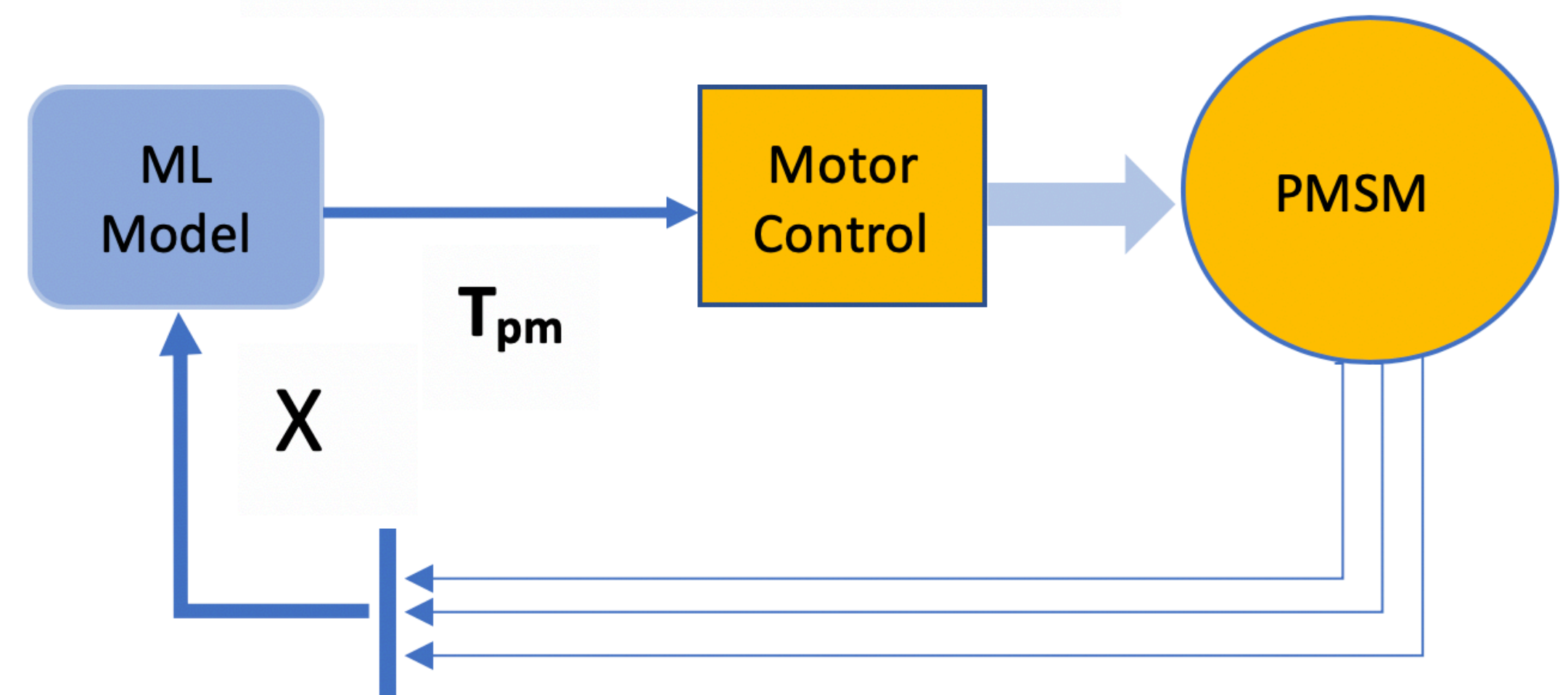


- ✓ Temperature is an important factor to control in motor components
- ✓ High temperatures can melt stator windings and demagnetise permanent magnets
- ✓ Complicated internal structure of the motor discourage sensors based monitoring

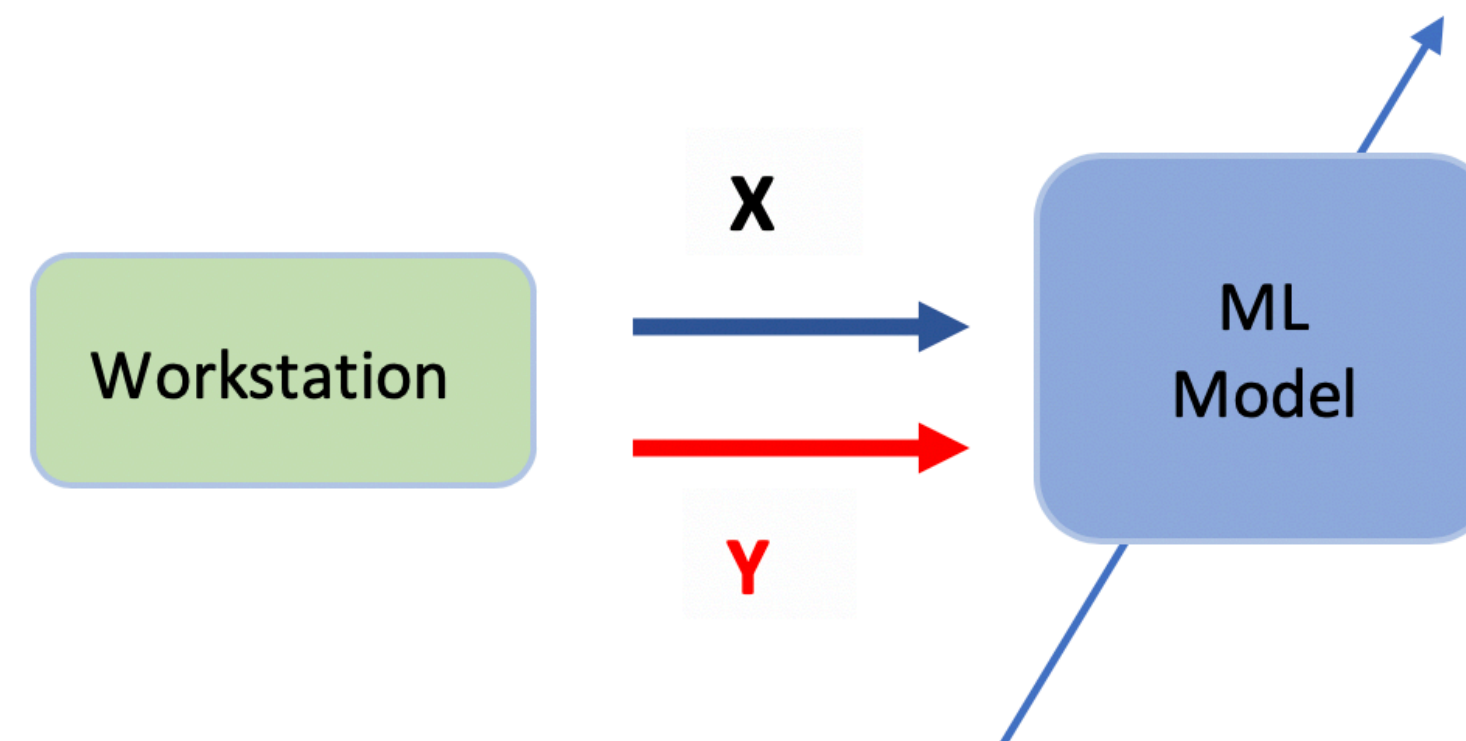
## Testbench Data Acquisition



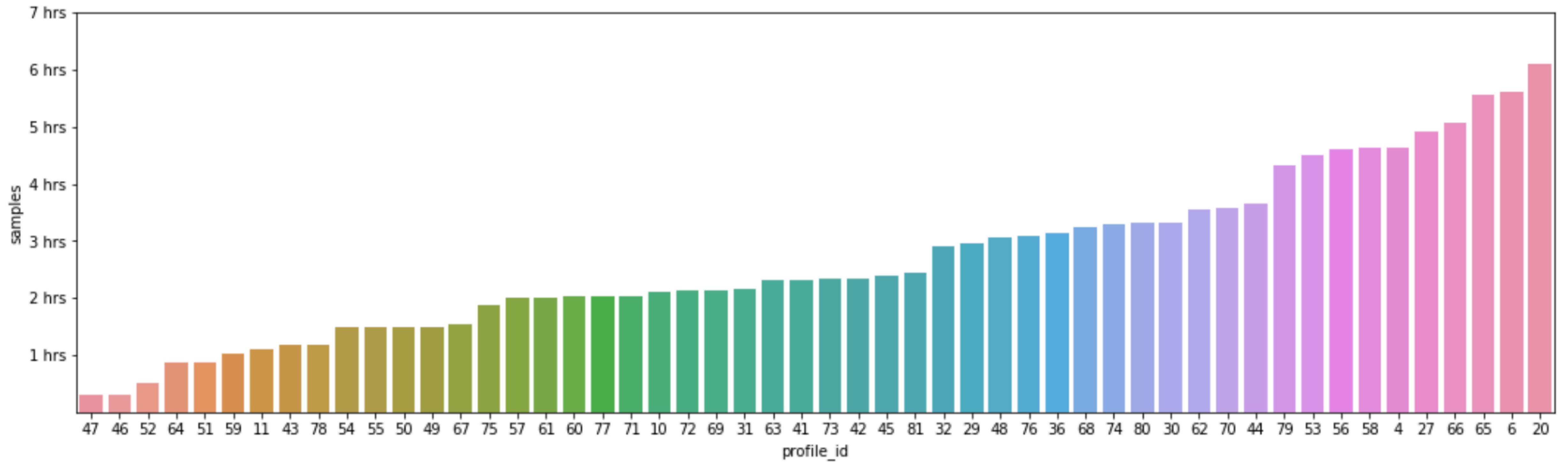
## Field Application



## Model Training



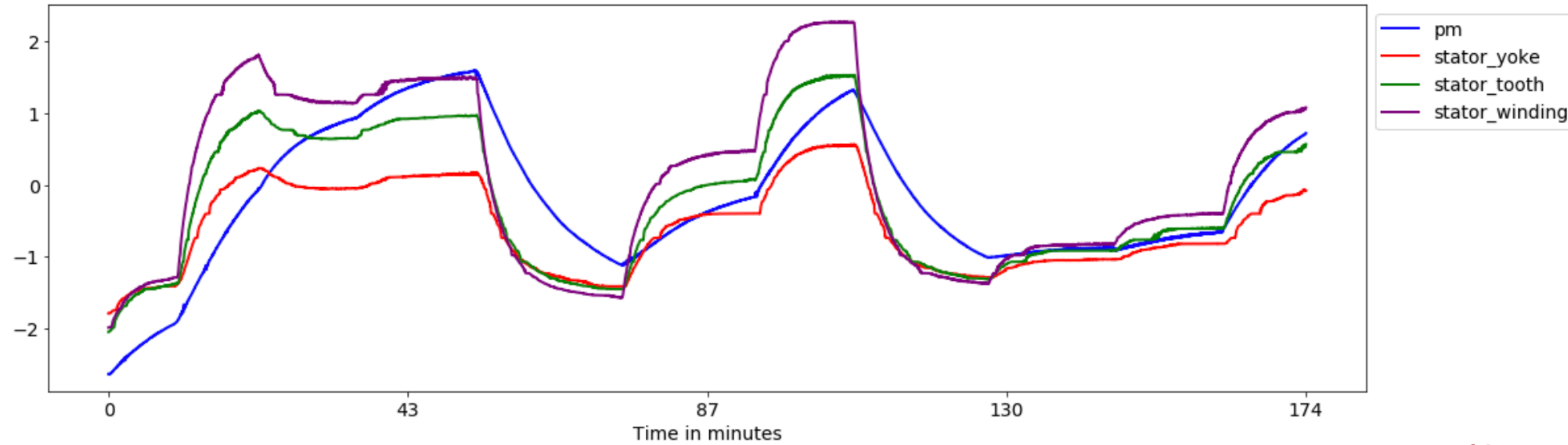




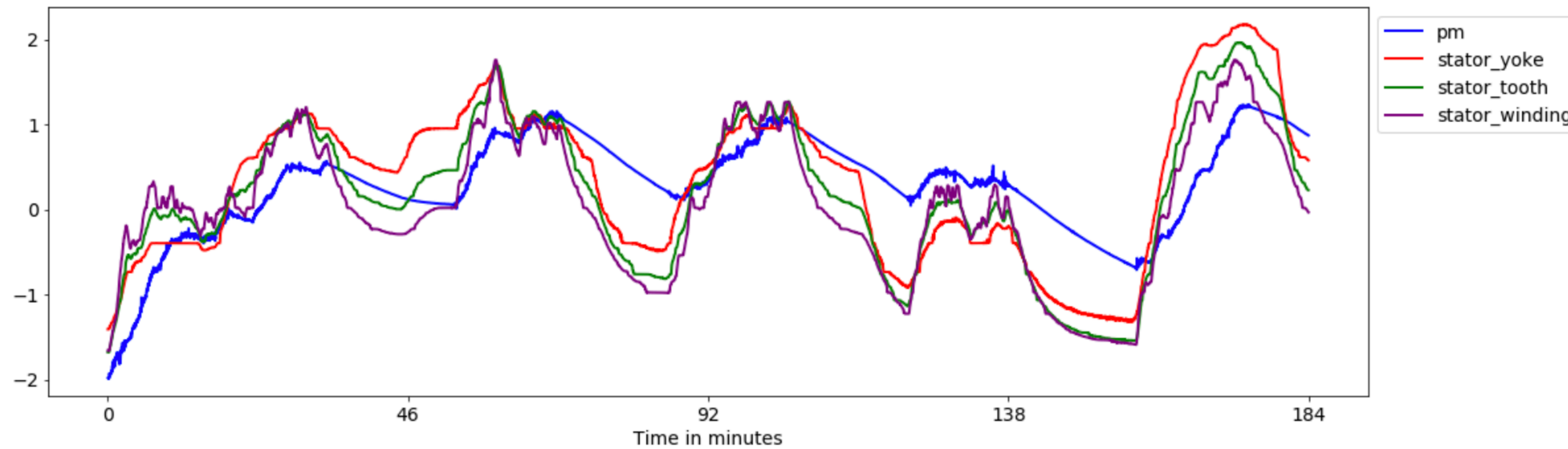
- ✓ Data is collected from sensors at each session twice per second
- ✓ Some recording sessions last for more than 5 hours

# Motor Temperatures

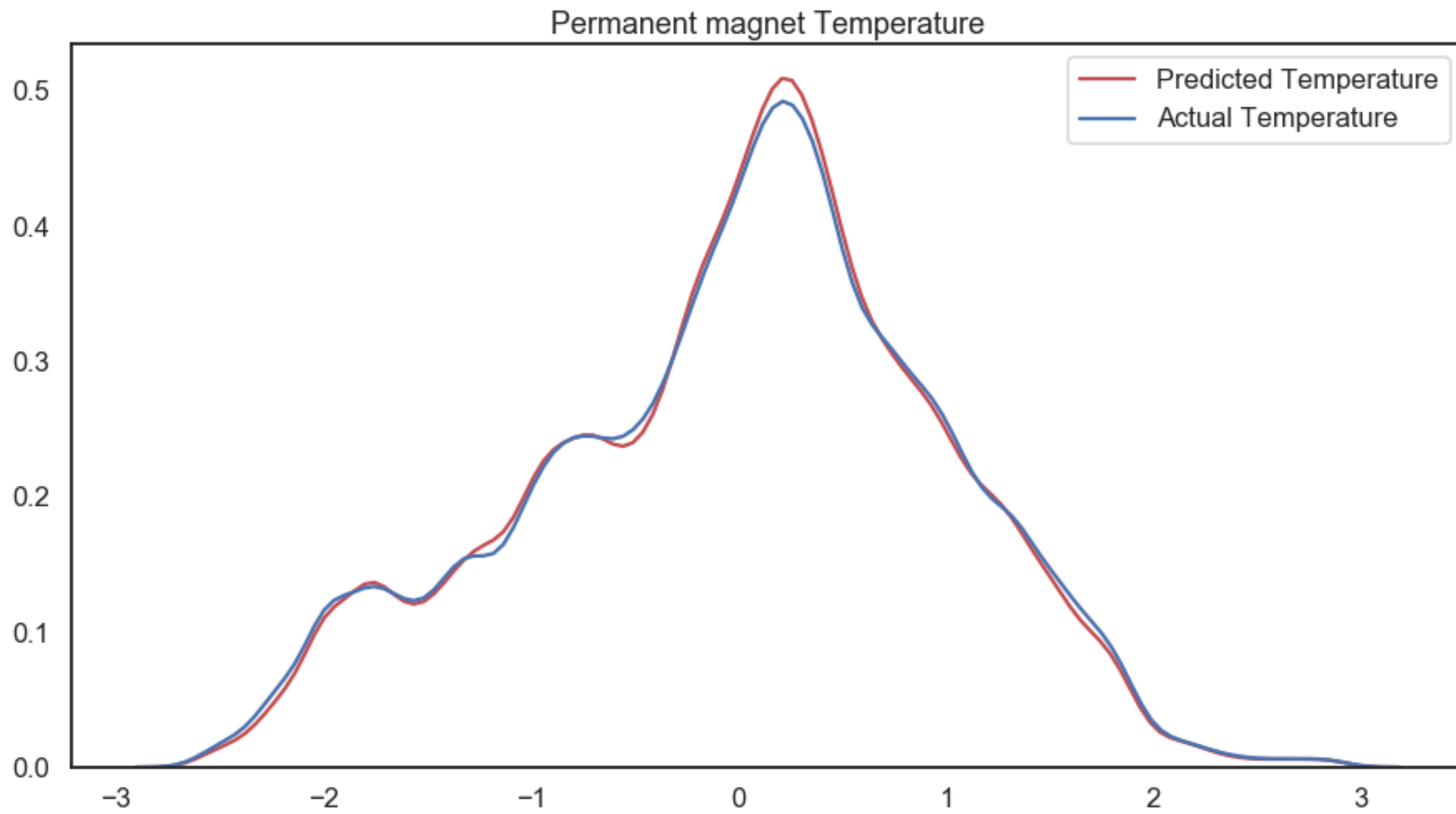
Profile 32



Profile 76



# Final Model Results



Thank you !

Q & A