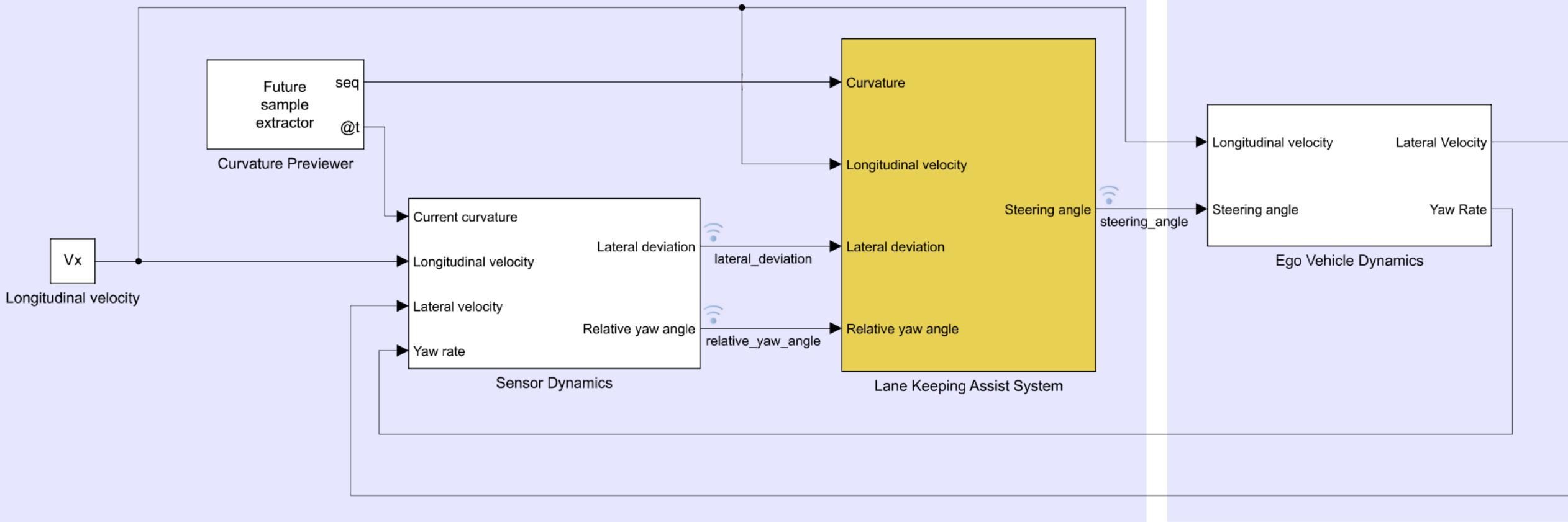Lane keeping controller and sensor dynamics

Lateral vehicle dynamics

Future sample extractor — seq, @t

Curvature Previewer

Vx

Longitudinal velocity

Sensor Dynamics

- Current curvature
- Longitudinal velocity
- Lateral velocity
- Yaw rate
- Lateral deviation
- Relative yaw angle

lateral_deviation

relative_yaw_angle

Lane Keeping Assist System

- Curvature
- Longitudinal velocity
- Lateral deviation
- Relative yaw angle
- Steering angle

steering_angle

Ego Vehicle Dynamics

- Longitudinal velocity
- Steering angle
- Lateral Velocity
- Yaw Rate