$hal.sensor.iio.accel.matrix = s1x, s1y, s1z, s2x, s2y, s2z, s3x, s3y, s3z$

$s \in R\{-1.0, +1.0\}$

$$(sensor_X \quad sensor_Y \quad sensor_Z) \times \begin{pmatrix} s_{1x} & s_{2x} & s_{3x} \\ s_{1y} & s_{2y} & s_{3y} \\ s_{1z} & s_{2z} & s_{3z} \end{pmatrix} = \begin{pmatrix} s_{1x} * sensor_X & s_{2x} * sensor_Y & s_{3x} * sensor_Z \\ s_{1y} * sensor_X & s_{2y} * sensor_Y & s_{3y} * sensor_Z \\ s_{1z} * sensor_X & s_{2z} * sensor_Y & s_{3z} * sensor_Z \end{pmatrix}^T$$

$$value_X = corr * (s_{1x} * sensor_X + s_{2x} * sensor_Y + s_{3x} * sensor_Z)$$

$$value_Y = corr * (s_{1y} * sensor_X + s_{2y} * sensor_Y + s_{3y} * sensor_Z)$$

$$value_Z = corr * (s_{1z} * sensor_X + s_{2z} * sensor_Y + s_{3z} * sensor_Z)$$

e.g. (default)

$$(sensor_X \quad sensor_Y \quad sensor_Z) \times \begin{pmatrix} -1.0 & 0 & 0 \\ 0 & +1.0 & 0 \\ 0 & 0 & -1.0 \end{pmatrix} = \begin{pmatrix} -1.0 * sensor_X & \cancel{0 * sensor_Y} & \cancel{0 * sensor_Z} \\ \cancel{0 * sensor_X} & +1.0 * sensor_Y & \cancel{0 * sensor_Z} \\ \cancel{0 * sensor_X} & \cancel{0 * sensor_Y} & -1.0 * sensor_Z \end{pmatrix}^T$$

$$(sensor_X \quad sensor_Y \quad sensor_Z) \times \begin{pmatrix} -1.0 & 0 & 0 \\ 0 & +1.0 & 0 \\ 0 & 0 & -1.0 \end{pmatrix} = \begin{pmatrix} -1.0 * sensor_X \\ +1.0 * sensor_Y \\ -1.0 * sensor_Z \end{pmatrix}^T$$

$$value_X = corr * (-1.0 * sensor_X)$$

$$value_Y = corr * (+1.0 * sensor_Y)$$

$$value_Z = corr * (-1.0 * sensor_Z)$$

e.g. (my TreckStor Tablet)

$$(sensor_X \quad sensor_Y \quad sensor_Z) \times \begin{pmatrix} 0 & -1.0 & 0 \\ -1.0 & 0 & 0 \\ 0 & 0 & -1.0 \end{pmatrix} = \begin{pmatrix} \cancel{0 * sensor_X} & -1.0 * sensor_Y & \cancel{0 * sensor_Z} \\ -1.0 * sensor_X & \cancel{0 * sensor_Y} & \cancel{0 * sensor_Z} \\ \cancel{0 * sensor_X} & \cancel{0 * sensor_Y} & -1.0 * sensor_Z \end{pmatrix}^T$$

$$(sensor_X \quad sensor_Y \quad sensor_Z) \times \begin{pmatrix} 0 & -1.0 & 0 \\ -1.0 & 0 & 0 \\ 0 & 0 & -1.0 \end{pmatrix} = \begin{pmatrix} -1.0 * sensor_Y \\ -1.0 * sensor_X \\ -1.0 * sensor_Z \end{pmatrix}^T$$

$$value_X = corr * (-1.0 * sensor_Y)$$

$$value_Y = corr * (-1.0 * sensor_X)$$

$$value_Z = corr * (-1.0 * sensor_Z)$$