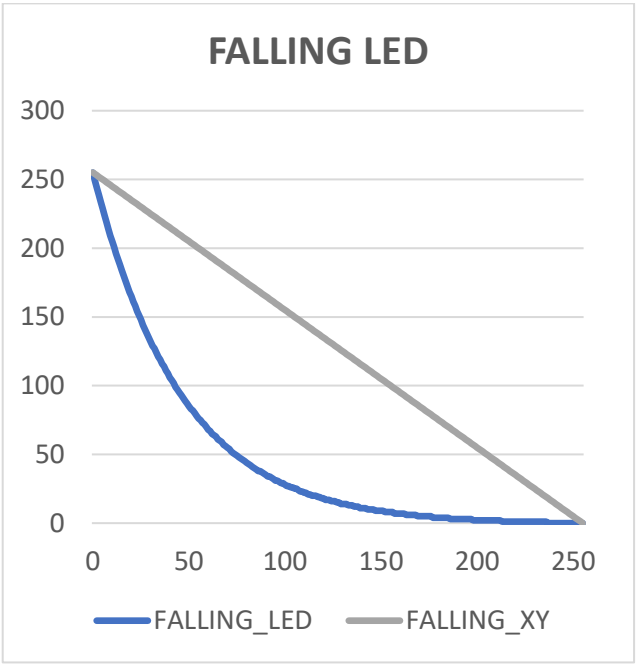
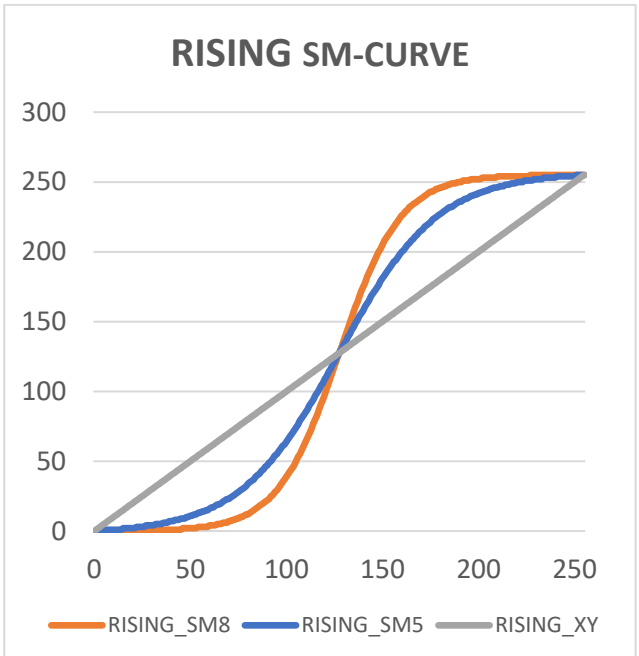
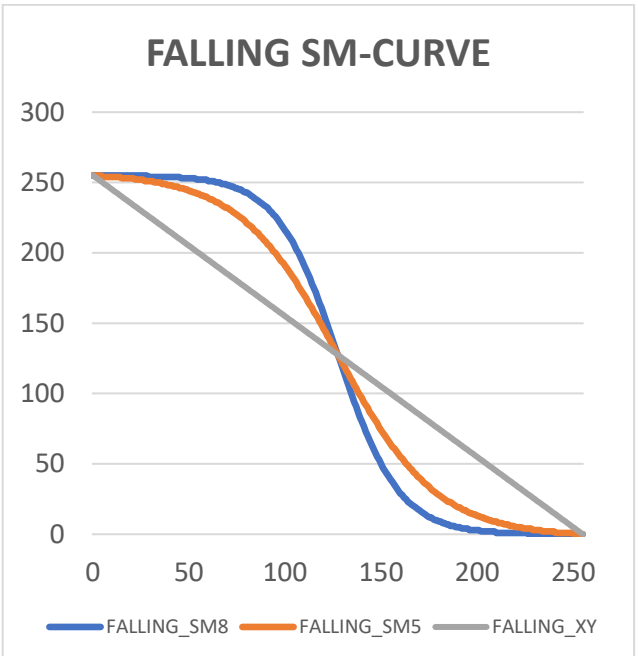
PWM_curves

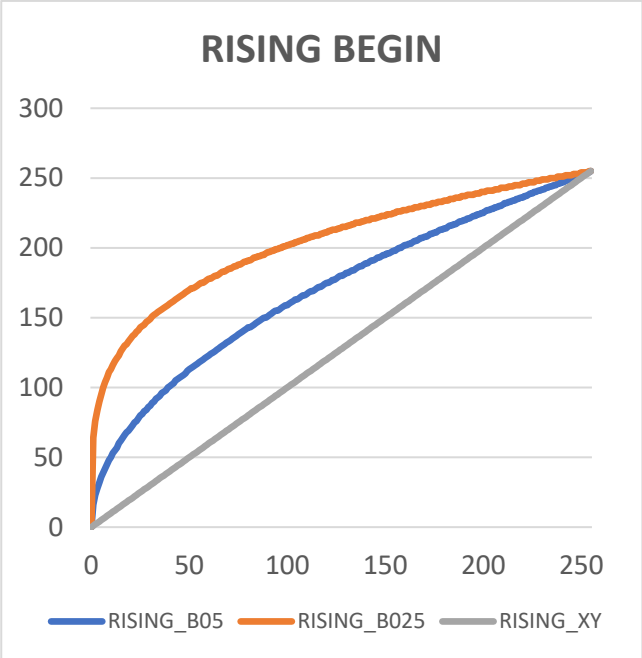
MTD2A: Model **T**rain **D**etection **A**nd **A**ction – arduino library https://github.com/MTD2A/MTD2A
Jørgen Bo Madsen / V1.1 / 03-11-2025

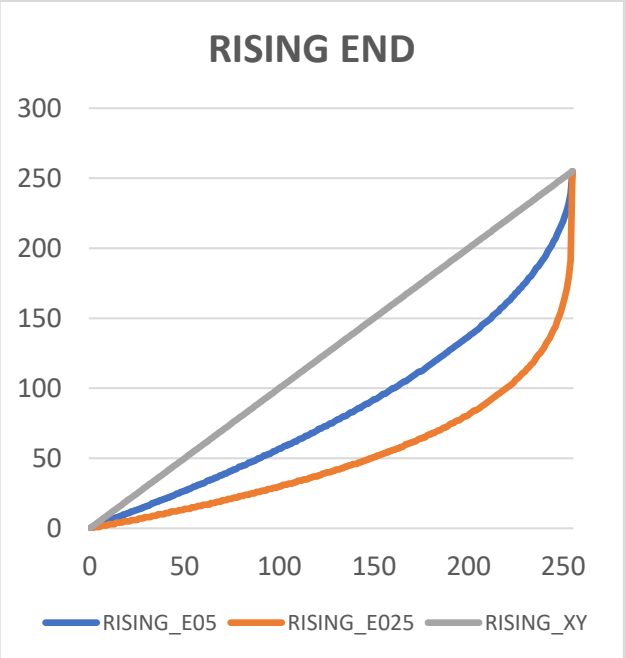
16 different mathematical PWM curves are designed: 2 linear, 4 exponential and 10 power functions. The functions are intended to smooth out physical conditions that have a nonlinear relationship between time and function. E.g. LED fade in/fade out and acceleration and deceleration DC motors (trains) and servo.

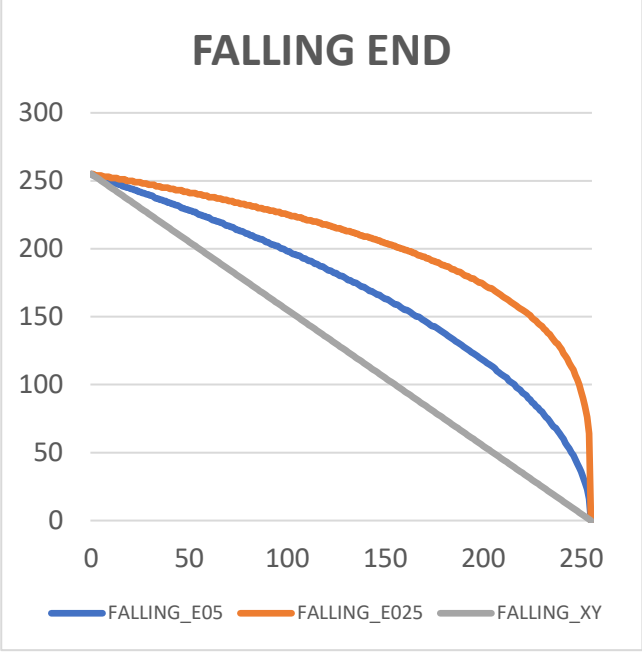


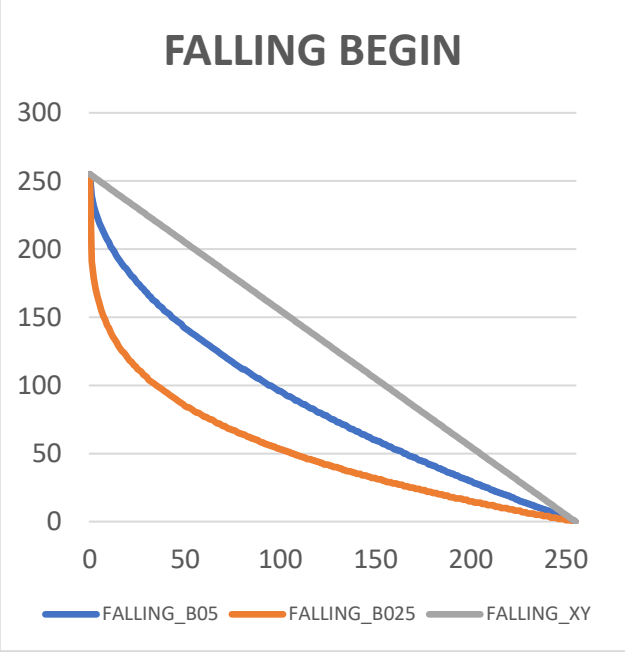












The various curves are named global constants (MTD2A_const.h):

MIN_PWM_VALUE

MAX_PWM_VALUE

NO_CURVE
RISING_XY
RISING_LED
RISING_SM8
RISING_B05
FALLING_B05

FALLING_XY
FALLING_LED
RISING_SM5
RISING_B025
FALLING_B025

FALLING_SM8
RISING_E05
FALLING_E05

FALLING_SM5
RISING_E025
FALLING_E025

Clarification: [Pulse-width modulation - Wikipedia, the free encyclopedia]