

EMC-HAL-
VBOXADD
0.0_6

EMC²

The Enhanced Machine Controller

```

/* calculate minimal number of steps for the first phase (acc) */
if (pi->plinitinc == maxinc)
  s->n = 0;
else
  /* n should be always be two steps or more */
  e->n =
  max(2,
  ceil(2 * fabs(maxinc - s->plinitinc) / (2 * amax10n * sq->ctPow2)));
/* calculate minimal number of steps for the third phase (dec) */
if (s->plfinalinc == maxinc)
  s->n = 0;
else
  e->n =
  max(2,
  ceil(2 * fabs(maxinc - s->plfinalinc) /
  (2 * amax10n * sq->ctPow2)));
/* calculate the minimal number of steps needed for the cruising phase */
if (length)
  {
  (s->n + 1) * (s->plinitinc + maxinc) / 2 - s->plinitinc * (s->n == 0)
  (s->n - 1) * (maxinc + s->plfinalinc) / 2 - maxinc * (s->n != 0)
  0;
  /* there is no cruising phase */
  e->n = 0;
  }
/* calculate the minimal number of steps needed for the cruising phase */
if (length)
  {
  (s->n + 1) * (s->plinitinc + maxinc) / 2 - s->plinitinc * (s->n == 0)
  (s->n - 1) * (maxinc + s->plfinalinc) / 2 - maxinc * (s->n != 0)
  0;
  /* there is no cruising phase */
  e->n = 0;
  }
/* calculate the minimal number of steps needed for the cruising phase */
if (length)
  {
  (s->n + 1) * (s->plinitinc + maxinc) / 2 - s->plinitinc * (s->n == 0)
  (s->n - 1) * (maxinc + s->plfinalinc) / 2 - maxinc * (s->n != 0)
  0;
  /* there is no cruising phase */
  e->n = 0;
  }

```

www.linuxcnc.org