Bender v.1 Info

feedMotor



Motor steps par 1 revolution

m1 = 200 steps

Gear Box Ratio

r1 = 10

Motor Mode

 $md1 = \frac{1}{2}$

Diameter of wheel

dw =30.4 mm

feedDrive steps par 1 revolution (spr1)

spr1 = (m1*r1)/md1

spr1 = (200*10)/0.5=4000 steps

feedDrive steps par 1 mm length (L)

$$s_p_mm1 = spr1 * \frac{L}{dw * \pi}$$

$$s_p mm1_{1mm} = 4000 * \frac{1}{30.4 * 3.1415} = 41.88$$

bendMotor



Motor

m2 = 200 steps

Gear Box Ratio

r2 = 10

Motor Mode

 $md2 = \frac{1}{2}$

* Diameter of gear1

0.752"

Tooth number of gear1

12

* Diameter of gear1

2.25"

Tooth number of gear1

36

Ratio gear2/gear1

rg21 = 3

bendDrive steps par 1 revolution (spr2)

$$spr2 = (m2*r1)/md1$$

$$spr2 = \frac{m2 * r2}{md2} * rg21$$

$$spr2 = \frac{200*10}{0.5} * 3 = 12000 \text{ steps}$$

bendDrive steps number par 1 degree

$$s_{p_{deg}} = spr2 * \frac{\propto}{360} = 33,33$$

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