

# Project Planning Sheet

## 7th Axis for robots

Company:	Processed by:
Technical consultant:	Date:
Purchasing consultant:	Project name:

**Project plan** (current state of project/schedule/quantity/aimed price)

**Application** (industry sector, machine type, usage etc.)

**System parameters**

Drive type:  Toothed belt  Ballscrew  acc. to calculation

Stroke length [mm]: \_\_\_\_\_ Repeatability [mm]: \_\_\_\_\_

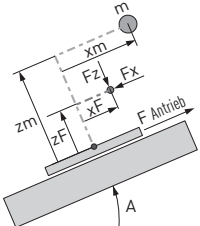
Ambient conditions (temperature, humidity, clips, dirt):

**Cycle** (travel distance, process time, travel speed, acceleration and non-productive times (breaks, gripper times etc.))

Path No.	Travel distance [mm]	Positioning time [s]	$V_{max}$ [m/s]	$a_{max}$ [m/s <sup>2</sup> ]	Break [s]	Description of the operation or non-productive times
1						
2						
3						
4						
5						

**Axis position in space**

Single and double axis



Angle A: \_\_\_\_\_ °

Net load on robot:  $m_N =$  [kg]

Robot mass:  $m_R =$  [kg]

Centre of gravity of the moving mass  $m_{ges}$ :

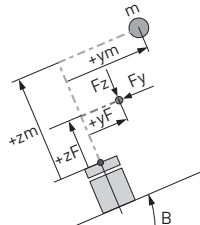
$x_m =$  [mm]

$y_m =$  [mm]

$z_m =$  [mm]

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Single axis HM/HT



Angle B: \_\_\_\_\_ °

External forces:

$F_x =$  [N]

$F_y =$  [N]

$F_z =$  [N]

Force transmission point:

$x_F =$  [mm]

$y_F =$  [mm]

$z_F =$  [mm]

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Motion Control & Systems

Robot adapter				
Manufacturer	Model			
Universal Robots	<input type="checkbox"/> UR3	<input type="checkbox"/> UR5	<input type="checkbox"/> UR10	<input type="checkbox"/> UR16
Techman	<input type="checkbox"/> TM5-700	<input type="checkbox"/> TM5-900	<input type="checkbox"/> TM12	<input type="checkbox"/> TM14
other				

Type	
<input type="checkbox"/> 7th axis	<input type="checkbox"/> 7th Axis Kit (only for UR and TM)

Cables for 7th Axis Kit		
Axis cable set consisting of:	<ul style="list-style-type: none"> <li>- Motor cable</li> <li>- Resolver cable</li> <li>- Limit switch cable</li> </ul>	<input type="checkbox"/> without cable <input type="checkbox"/> 3 m <input type="checkbox"/> 5 m <input type="checkbox"/> 7 m <input type="checkbox"/> 10 m <input type="checkbox"/> 15 m
Cabinet cable set consisting of:	<ul style="list-style-type: none"> <li>- Network cable</li> <li>- Signal cable</li> </ul>	<input type="checkbox"/> without cable <input type="checkbox"/> 3 m <input type="checkbox"/> 5 m <input type="checkbox"/> 7 m <input type="checkbox"/> 10 m <input type="checkbox"/> 15 m <input type="checkbox"/> 18 m

Options		
Feature	Standard	Option
Cover strip:	<input type="checkbox"/> C	<input type="checkbox"/> N
Limit switches <sup>6)</sup> :	<input type="checkbox"/> A	<input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> N
Distance measuring system H-S/H-B <sup>5)</sup> :	<input type="checkbox"/> N	<input type="checkbox"/> A <input type="checkbox"/> D
Drive interface <sup>1)</sup> :		
HT-B:	<input type="checkbox"/> N	<input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> G <input type="checkbox"/> H
	<input type="checkbox"/> C <sup>2)</sup>	<input type="checkbox"/> F <sup>2)</sup> <input type="checkbox"/> E <sup>2)</sup>
HT-S:	<input type="checkbox"/> N	<input type="checkbox"/> S <input type="checkbox"/> L <input type="checkbox"/> R <input type="checkbox"/> A <input type="checkbox"/> B
	<input type="checkbox"/> C <sup>2)</sup>	<input type="checkbox"/> D <sup>2)</sup> <input type="checkbox"/> E <sup>2)</sup> <input type="checkbox"/> G <sup>2)</sup> <input type="checkbox"/> H <sup>2)</sup>
Motor/motor gear adapter H-B/H-S <sup>4)</sup> :	<input type="checkbox"/> N	<input type="checkbox"/> With adapter for motor, type: _____ Manufacturer _____ <input type="checkbox"/> With adapter for Neugart gearbox, type: _____
Gears H-B <sup>3)</sup> :	<input type="checkbox"/> N	<input type="checkbox"/> With assembled gearbox, type: _____ Gear transmission: _____ <input type="checkbox"/> Angular gear (for alignment see supplementary sheet) <input type="checkbox"/> With assembled gearbox acc. to calculation
Accessories:	<input type="checkbox"/> Without	<input type="checkbox"/> Journal    Type: _____    Quantity: _____ <input type="checkbox"/> Centring sleeve (PU: 10 pcs.)    Type: _____    Quantity: _____ <input type="checkbox"/> T Nuts (PU: 10 pcs.)    Type: _____    Quantity: _____ <input type="checkbox"/> Clamping profile (PU: 4 pcs.)    Type: _____    Quantity: _____

<sup>1)</sup> For details please refer to the order code in the catalogue „Linear Axes and Axis Systems HX“

<sup>3)</sup> With 7th Axis Kit including G0808 gearbox

<sup>5)</sup> For 7th Axis Kit, only option "N" available

<sup>2)</sup> With energy chain

<sup>4)</sup> With 7th Axis Kit including SEW servo motor

<sup>6)</sup> For 7th Axis Kit, only option "A" available

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**Sketch** (with separate attachment, where appropriate)