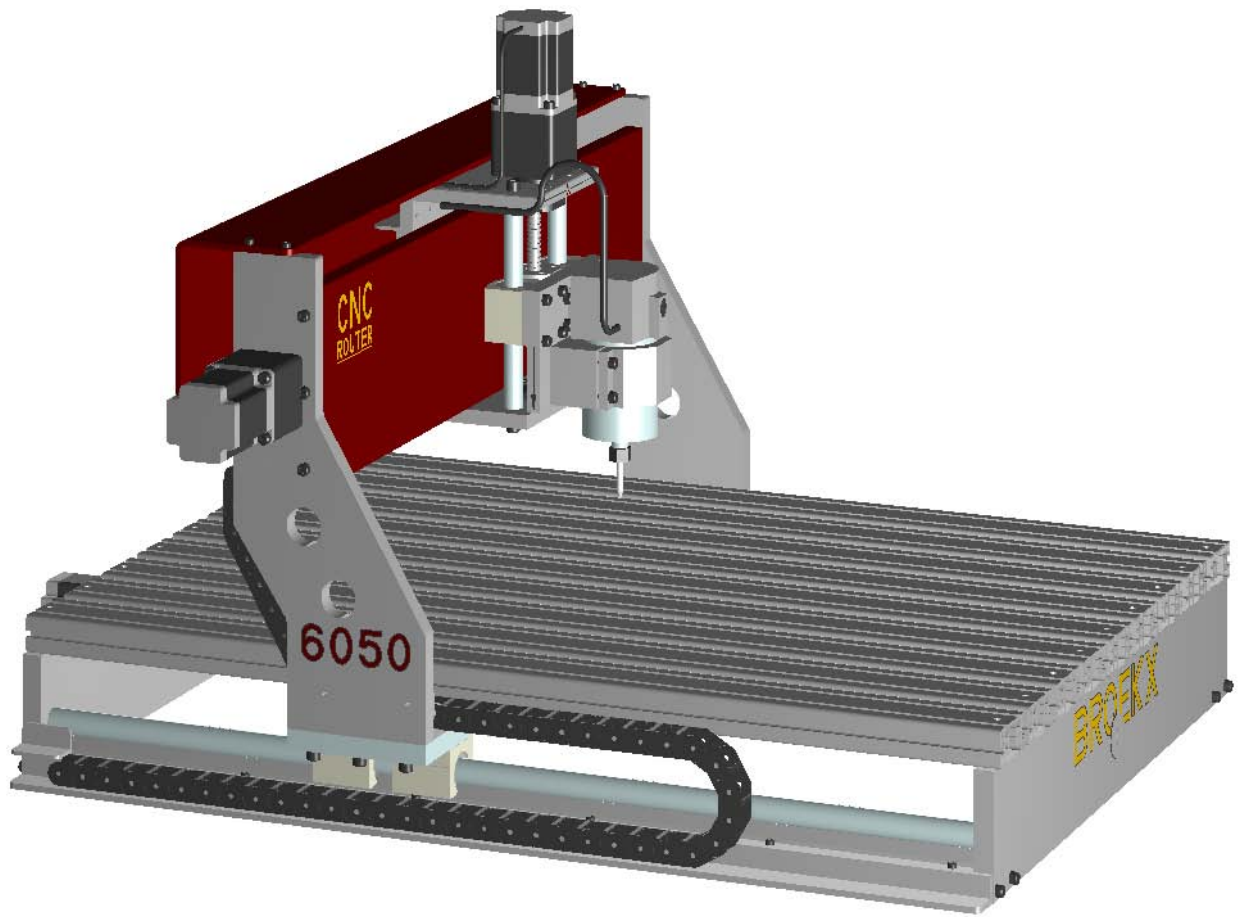


# ***Broekx D.I.Y. Project***

## ***CNC Router 6050***



Designed by Martin Broekx  
Project Number CNC-6050

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# CNC Router 6050

## Material List

Quantity	Description	Size
<b>Base Assembly</b>		
2	Front and Back - Flat Bar Aluminium	630x100x12mm
2	Linear Rail Support - Flat Bar Aluminium	800x100x16mm
9	Work Top - Aluminium Extrusion	836x60x30mm
1	Drag Chain Guide - Angle	830-30x25x3mm
2	SBR20mm Linear Rail	800mm
4	Linear Bearings - SBR20UU	
1	1605 Ball screw and Nut	
1	Ball screw Nut Housing	
1 Set	Bearing FK-12 FF-12	
8	Socket Head Screws	M8x35
8	Socket Head Screws	M6x35
12	Socket Head Screws	M5X25
48	Socket Head Screws	M5X15
<b>X Axis Assembly</b>		
1	Top Plate Flat Bar Aluminium	156x150x16mm
1	Bottom Plate - Aluminium	122x150x16mm
1	Back Plate - Aluminium	208x150x16mm
1	Drag Chain Clamp Aluminium Angle	140-25x20x3mm
2	16mm Linear Rail	208mm
2	Linear Bearings - SC16LUU	
1	1605 Ball screw and Nut	
1	Ball screw Nut Housing	
1 Set	Bearing FK-12 FF-12	
6	Socket Head Screws	M8x35
3	Socket Head Screws	M6x35
3	Socket Head Screws Countersunk	M6x35
32	Socket Head Screws	M5X25
2	Socket Head Screws	M5X15
<b>Y Axis Assembly</b>		
1	Mounting Plate - Aluminium	732x120x16
2	Side Supports - Aluminium	425x165x16
1	Linear Rail Support	700x200x16mm
1	Drag Chain Guide - Aluminium Channel	710 - 30x25x3mm
1	Top Guard - Aluminium Flat Plate	710x230x3mm
1	Drag Chain Clamp Aluminium Angle	96-25x20x3mm
2	SBR16mm Linear Rail	700mm
4	Linear Bearings - SBR16UU	
1	1605 Ball screw	
1	Ball screw Nut	
1	Ball screw Nut Housing	
1 Set	Bearing FK-12 FF-12	
10	Socket Head Screws	M8X35
6	Socket Head Screws	M6X35
20	Socket Head Screws	M5X30
12	Socket Head Screws	M5X25
22	Socket Head Screws	M5X15

# CNC Router 6050

## Material List

Quantity	Description	Size
<b>Z Axis Assembly</b>		
1	Mounting Plate - Aluminium	150x136x16mm
1	Spindle Mounting Block	100x48x40
1	Spindle Mounting Bracket	100x48x38
12	Socket Head Screws	M5X30
4	Socket Head Screws Counter sunk	M5X30
<b>Stepper Motor Assembly</b>		
3	Stepper Motors 57BYGH76-602A	
3	Stepper Motor Mounts	
3	Flexible Couplers 6.34*10	
12	Socket Head Screws	M6x65
14	Socket Head Screws	M5x15

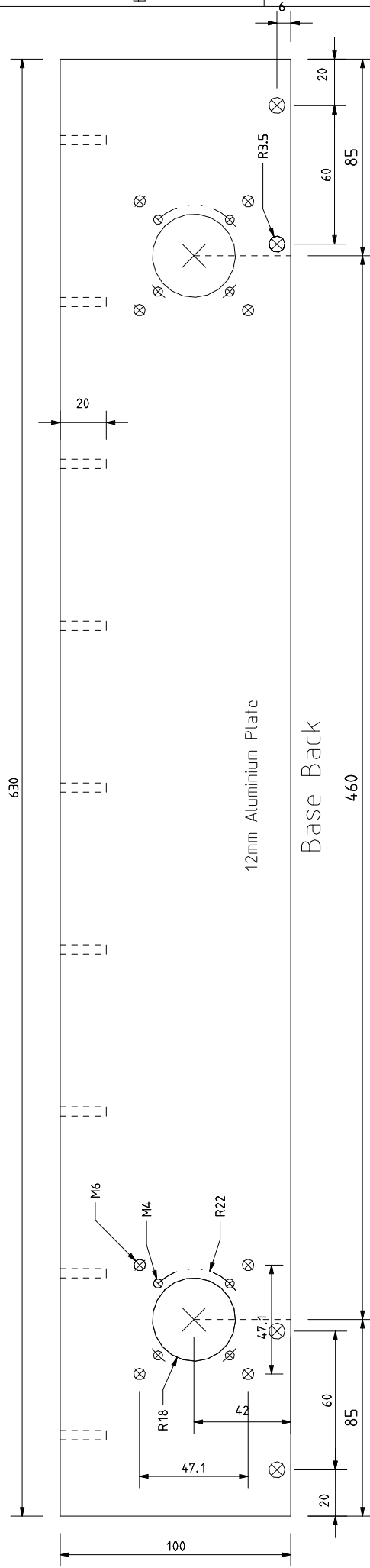
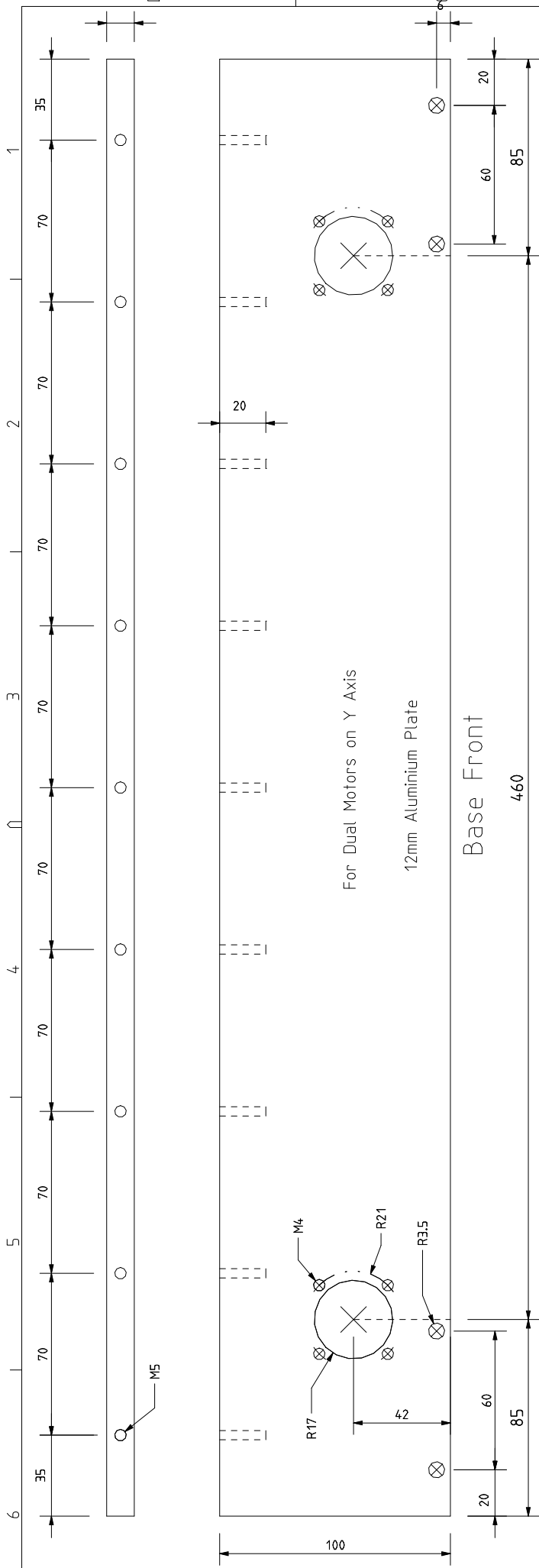
## Specification's

Spindle Motor Water or Air Cooled

3 Stepper Motors 57BYGH76-602A

Work Piece Size . . . . .	X Axis	530mm
	Y Axis	670mm
	Z Axis	100mm
Table size . . . . .		830mm x 630mm
Height . . . . .		580mm
Width . . . . .		860mm
Depth . . . . .		970mm





HOME WORKSHOP PROJECT		C.N.C. Router	
DESIGNED BY	SIZE	PROJECT NUMBER CNC-6050	
MARTIN BROEKK	A4	Base Front & Back for Dual Motors	
DRAWN	12-12-2011	ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED	10-1-2012	SCALE 1:2.5	SHEET 1B OF 16



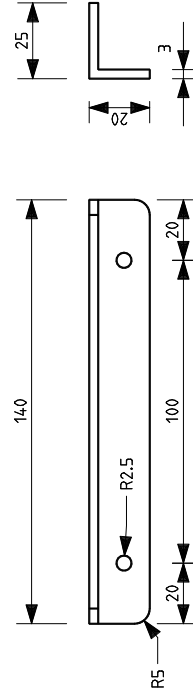
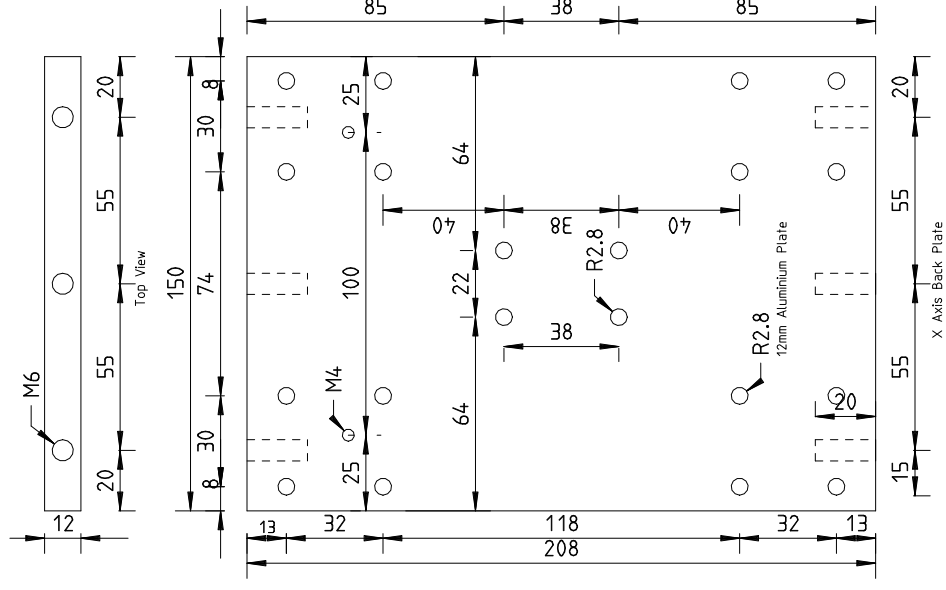
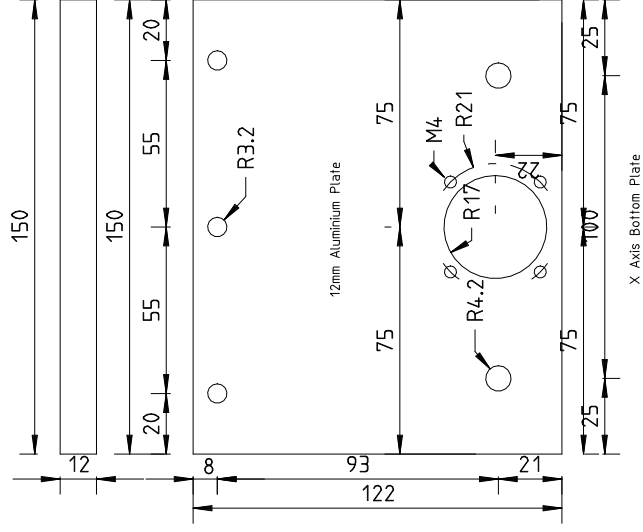
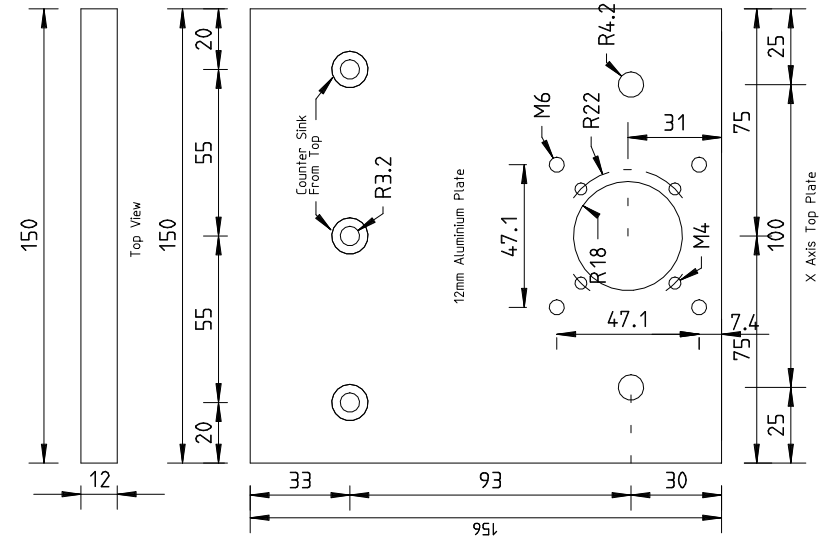




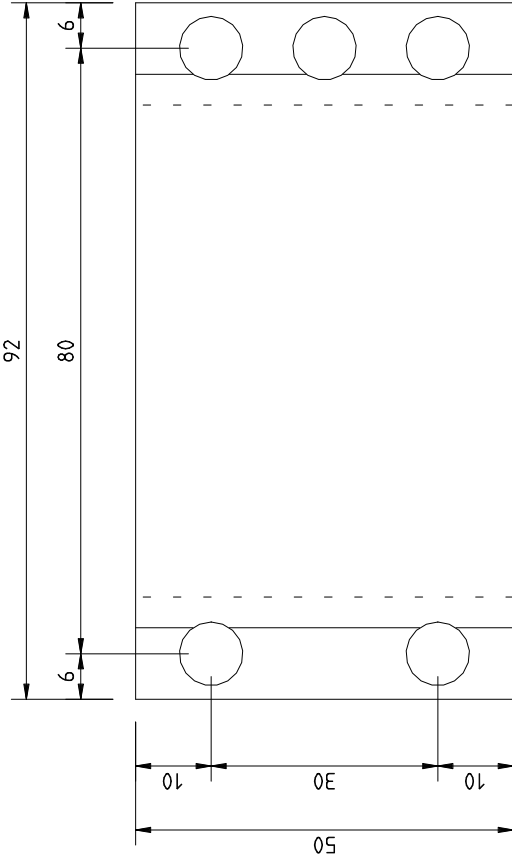
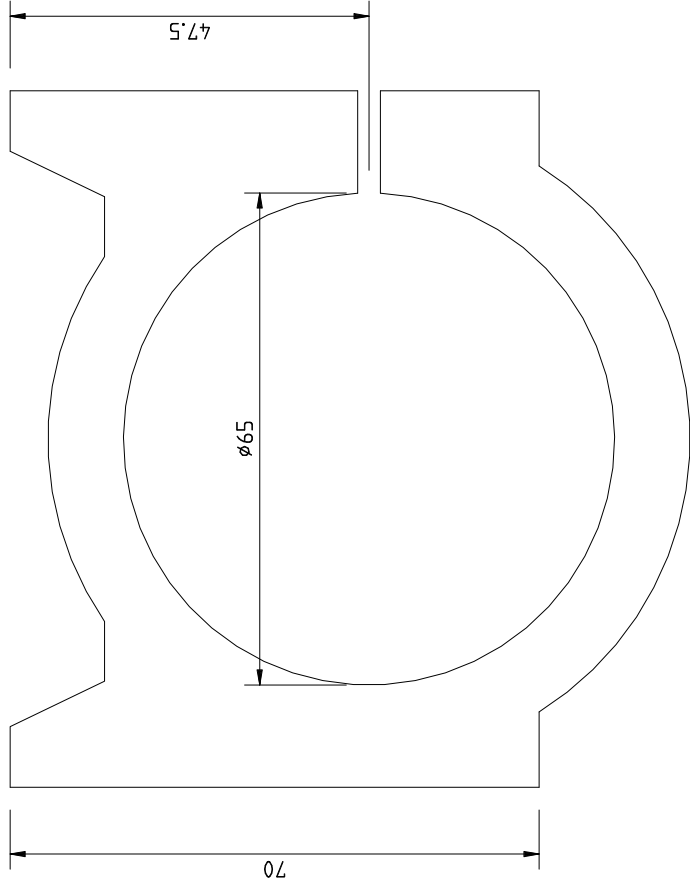




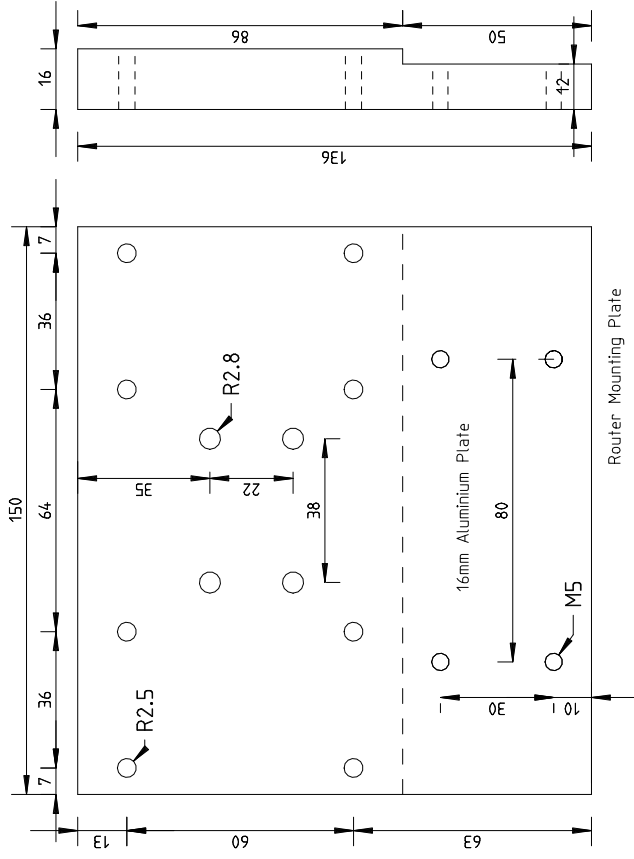
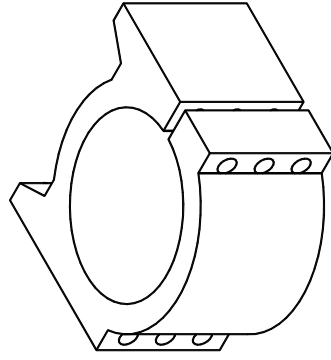




BROEKX D.I.Y. HOME WORKSHOP PROJECT		C.N.C. Router	
DESIGNED BY	SIZE	PROJECT NUMBER CNC-6050	
MARTIN BROEKX	A4	X Axis Top,Botton and Back Plates	
DRAWN 24-01-2012		ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED 26-01-2012	SCALE 1:2.5	SHEET 7 OF 16	
3	1	2	1



65mm Spindel Mount Scale 1:1



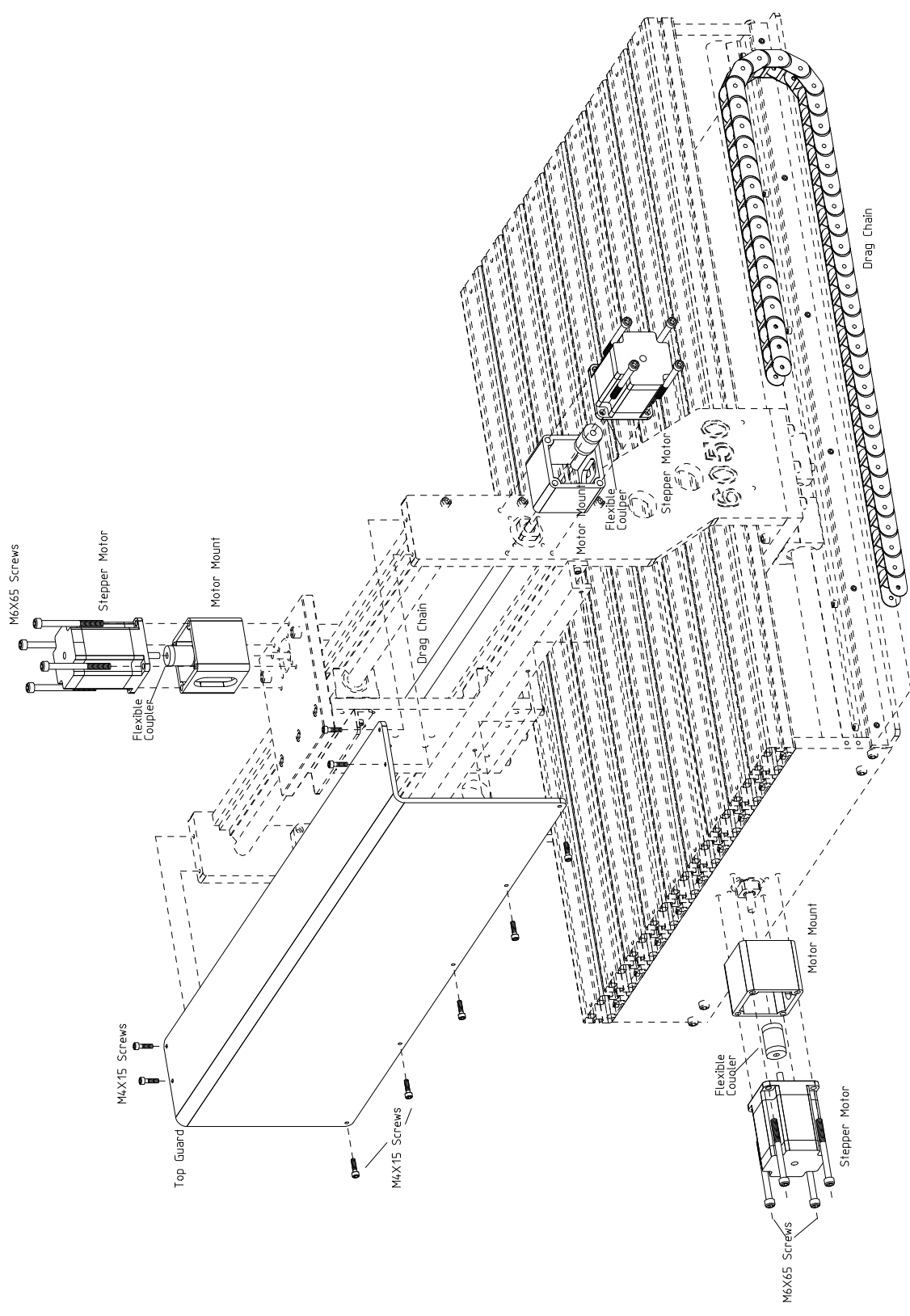
Router Mounting Plate

BROEKK D.I.Y.		C.N.C. Router	
HOME WORKSHOP PROJECT	DESIGNED BY	PROJECT NUMBER CNC-6050	
	MARTIN BROEKK	Spindle Mounting Block	
DRAWN 28-01-2012	SIZE A4	ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED 30-01-2012	SCALE 1:2	SHEET 8 OF 16	



1 2 3 4 5 6

D C B A

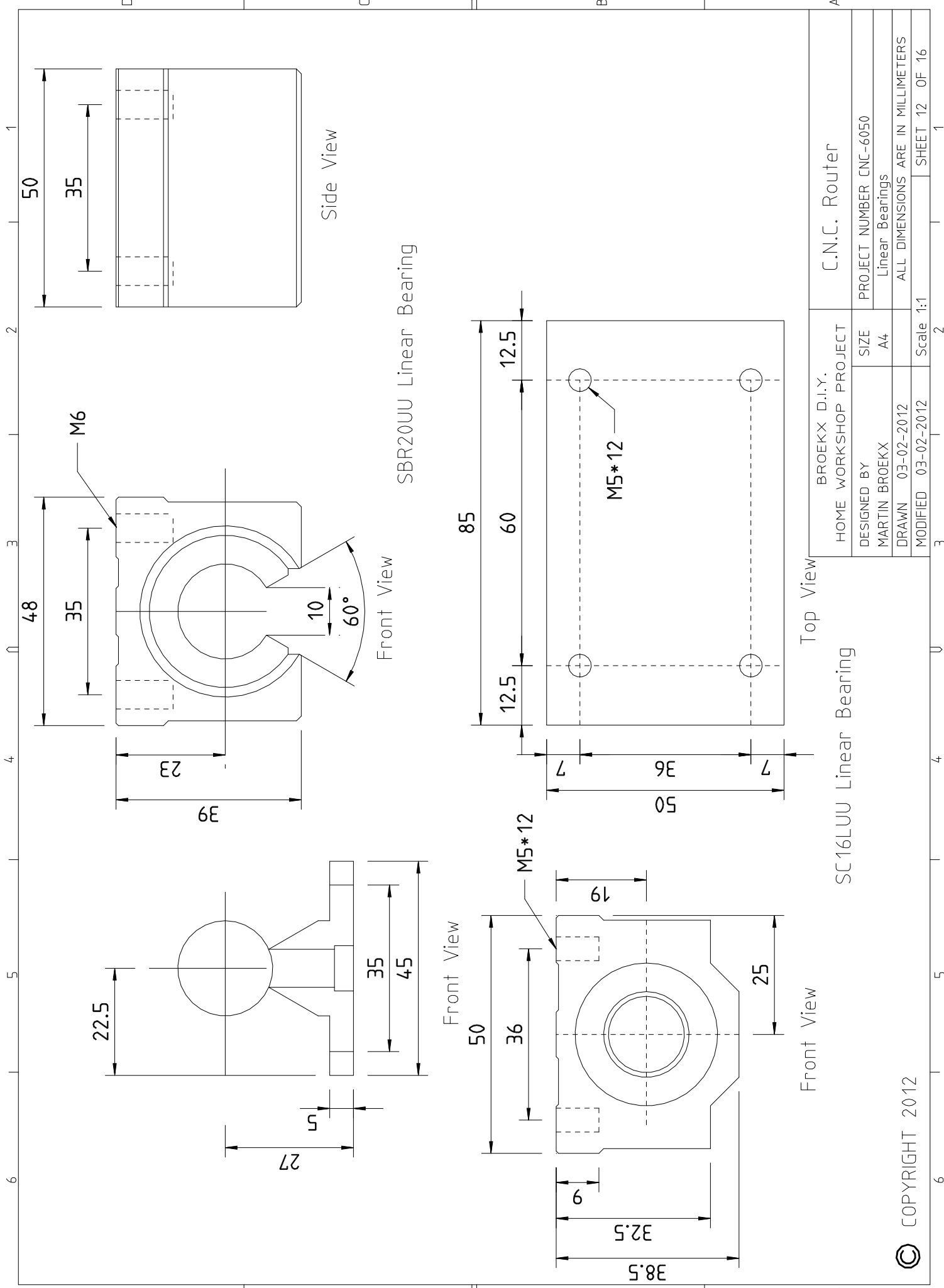


Motor & Guard Assembly

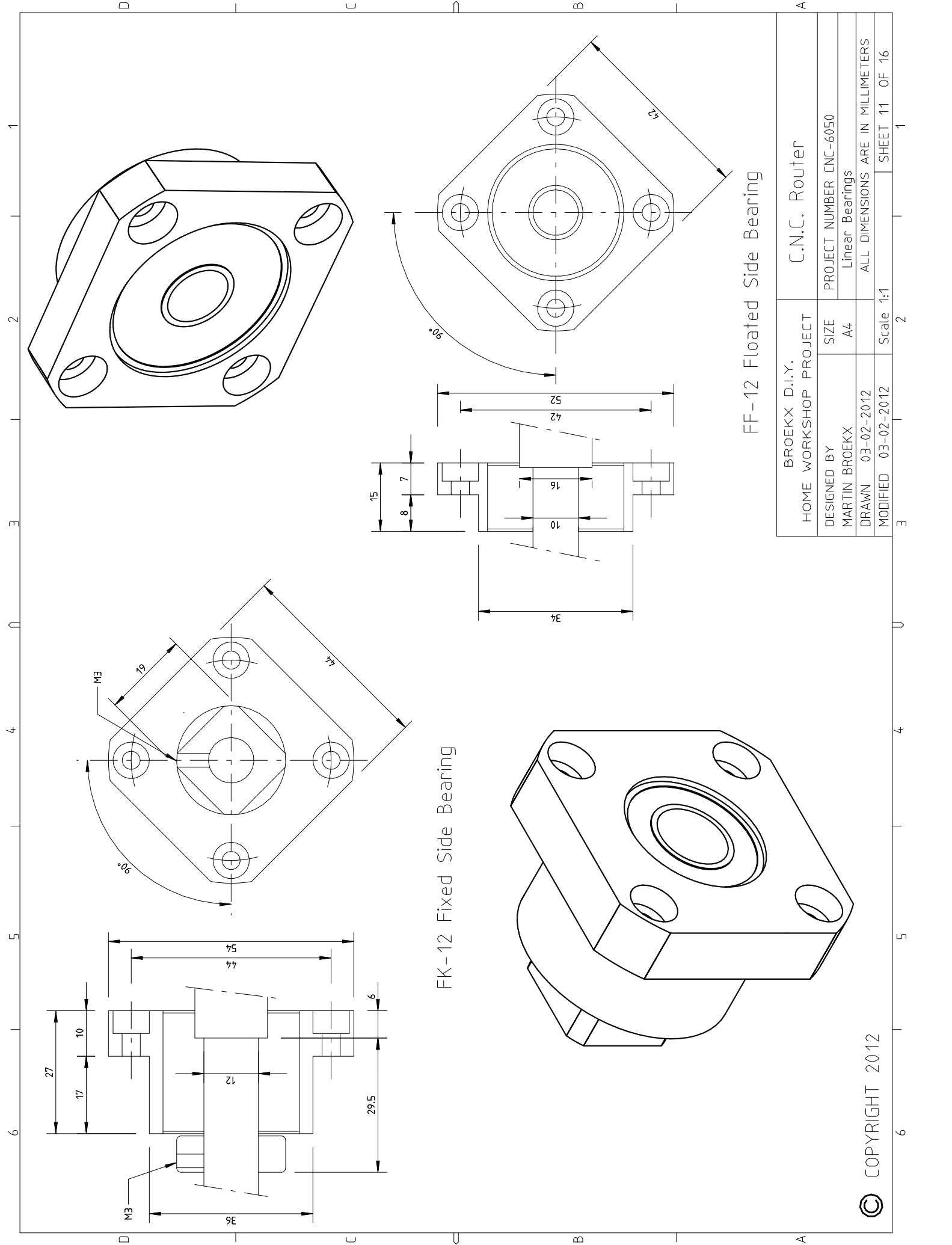
HOME WORKSHOP PROJECT		C.N.C. Router	
DESIGNED BY	SIZE	PROJECT NUMBER CNC-6050	
MARTIN BROEKKX	A4	Exploded Views	
DRAWN	10-02-2012	ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED	10-02-2012	NOT TO SCALE	SHEET 10 OF 16

6 5 4 3 2 1







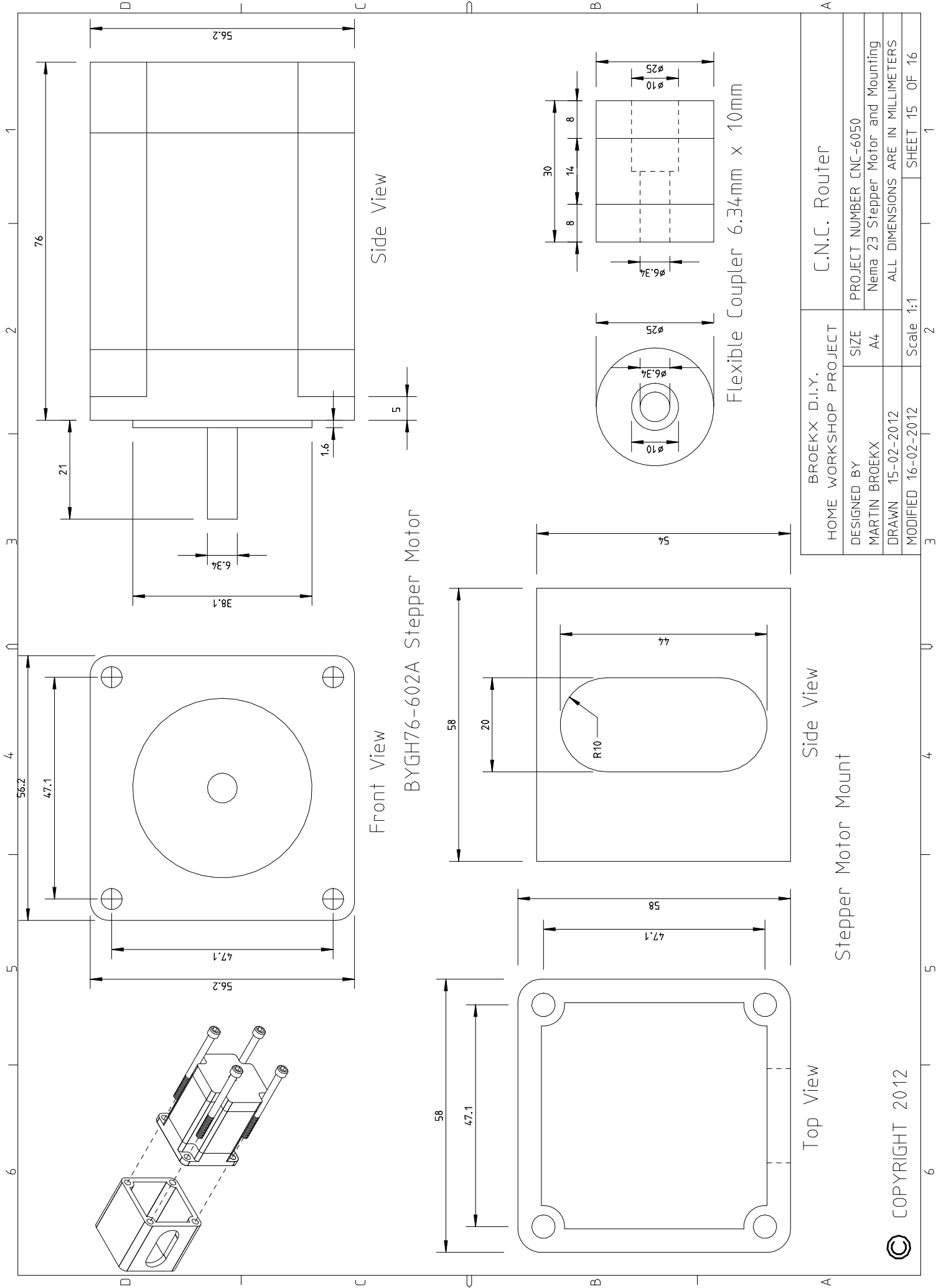


FK-12 Fixed Side Bearing

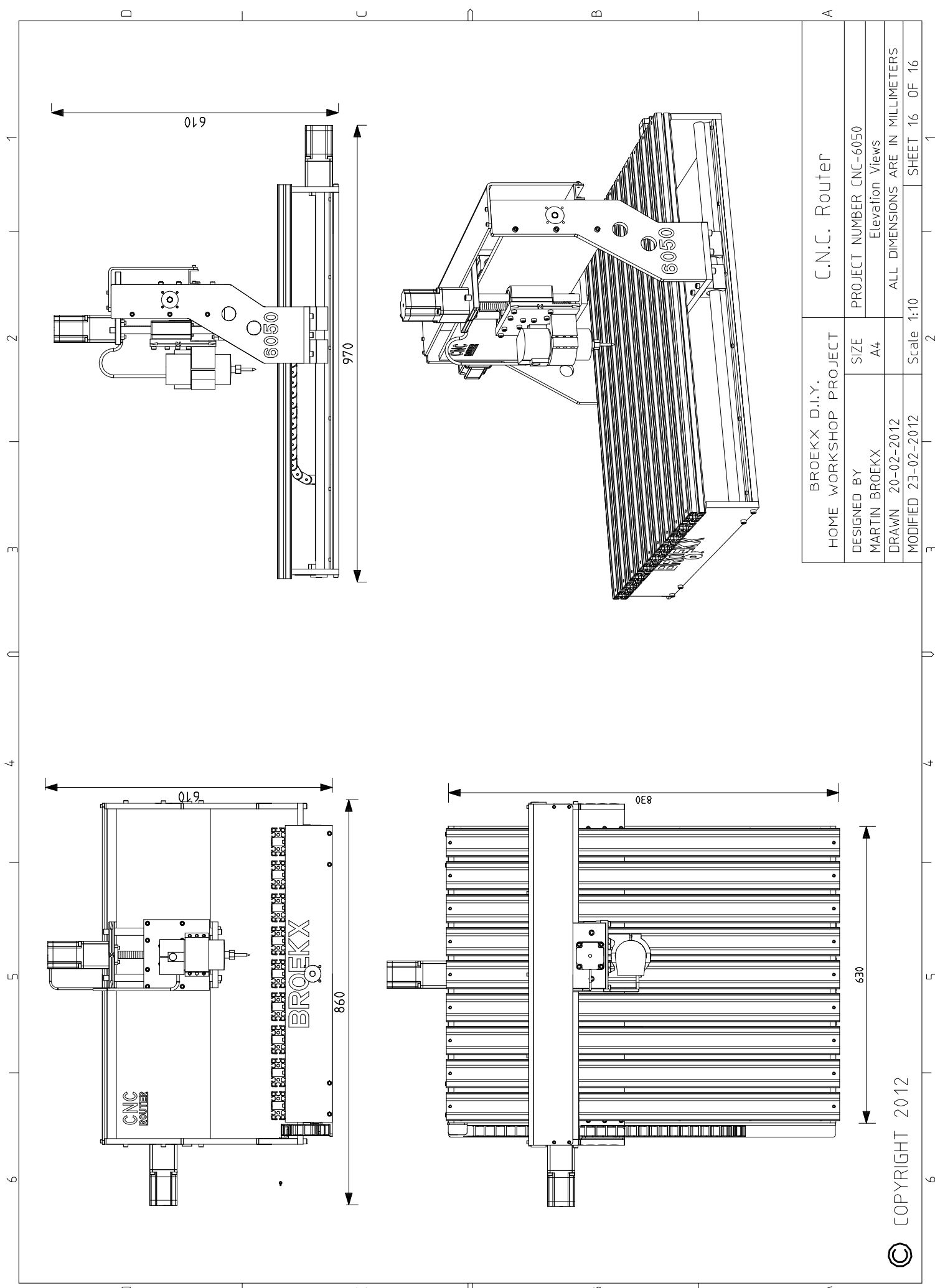
FF-12 Floated Side Bearing

HOME WORKSHOP PROJECT		C.N.C. Router	
DESIGNED BY MARTIN BROEKX	SIZE A4	PROJECT NUMBER CNC-6050 Linear Bearings	
	DRAWN 03-02-2012	ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED 03-02-2012	Scale 1:1	SHEET 11 OF 16	

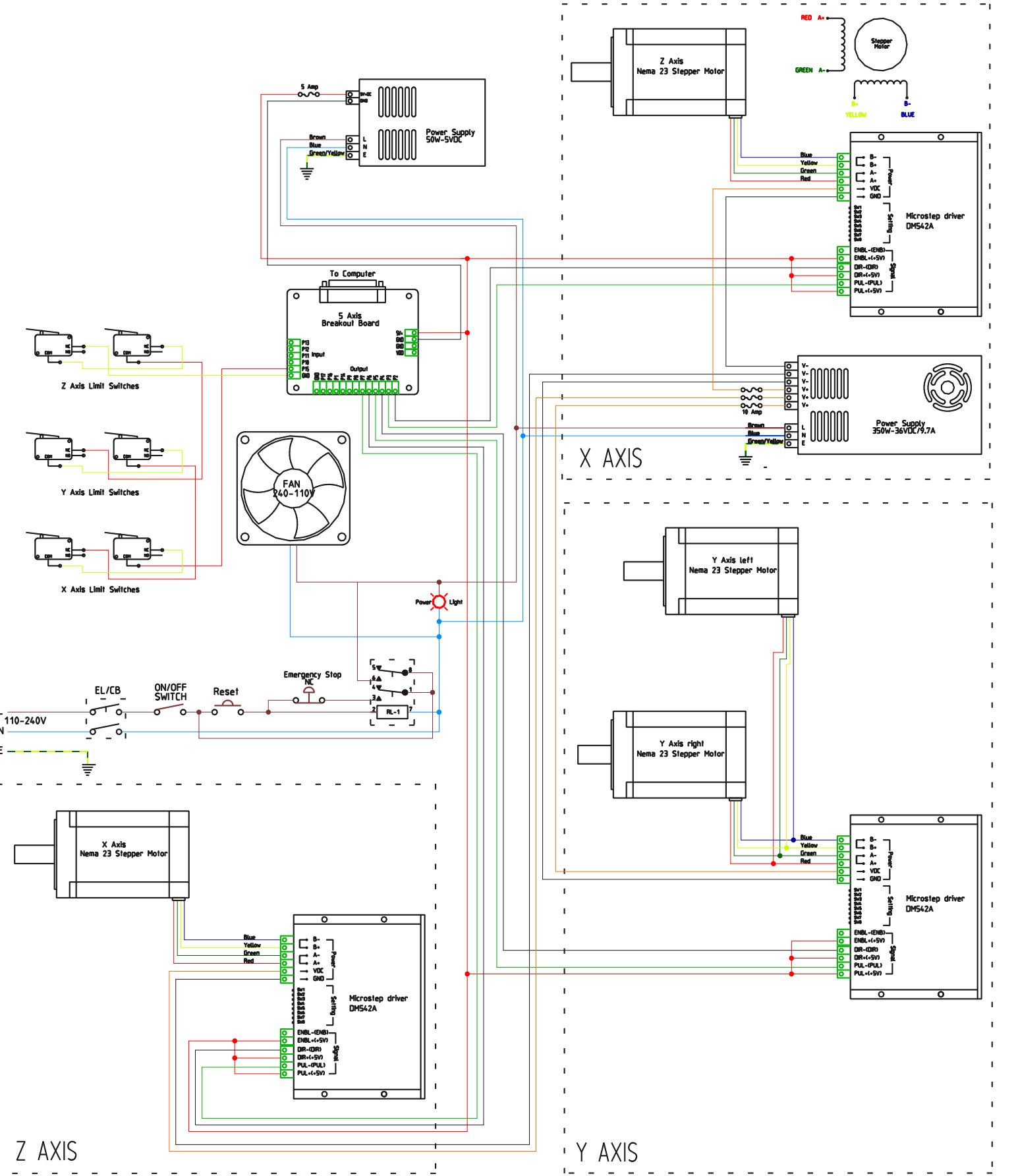




BROEKK D.I.Y.		C.N.C. Router	
HOME WORKSHOP PROJECT		PROJECT NUMBER CNC-6050	
DESIGNED BY	SIZE	Nema 23 Stepper Motor and Mounting	
MARTIN BROEKK	A4	ALL DIMENSIONS ARE IN MILLIMETERS	
DRAWN	15-02-2012	SHEET 15 OF 16	
MODIFIED	16-02-2012	Scale 1:1	



BROEKX D.I.Y. HOME WORKSHOP PROJECT		C.N.C. Router	
DESIGNED BY MARTIN BROEKX	SIZE	PROJECT NUMBER CNC-6050	
	A4	Elevation Views	
DRAWN 20-02-2012		ALL DIMENSIONS ARE IN MILLIMETERS	
MODIFIED 23-02-2012	Scale 1:10	SHEET 16	OF 16



## NOTES

## Other DIY Project's



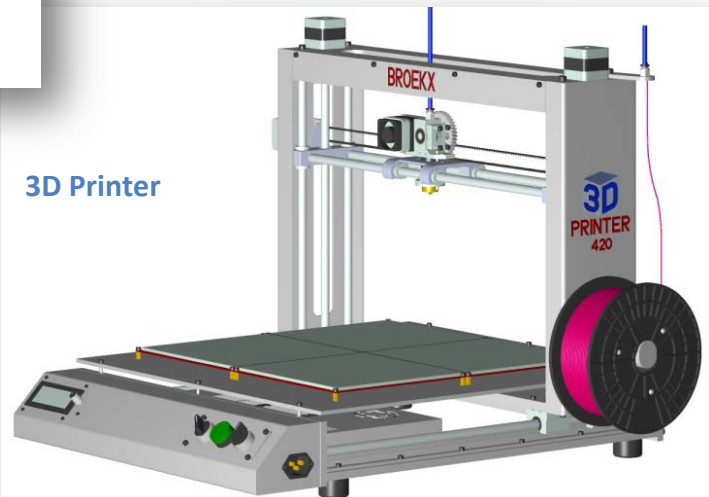
CNC Maxi Router



400mm Brick Saw



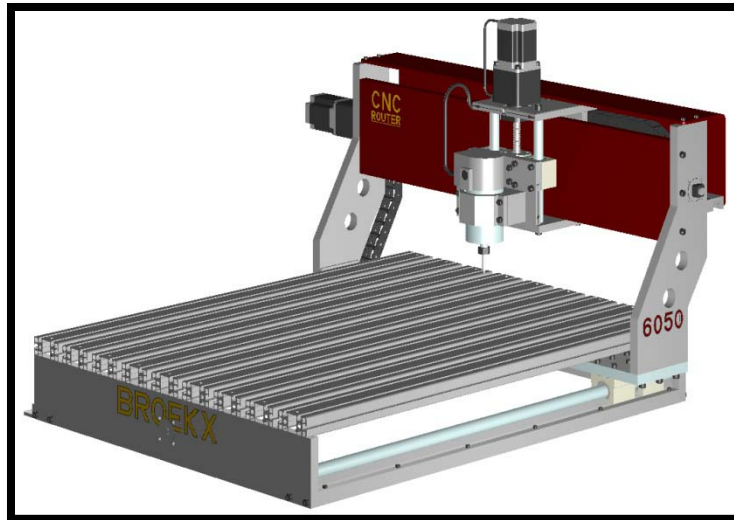
CNC Router 6050



3D Printer



Plasma Table



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