Pan-Tilt Head Parts List

Table 1 - Document History			
Revision	**Initials**	**Date**	**Description**
Rev 1	AWD	6th Feb 2022	Document created
Rev 2	AWD	15th Feb '22	Added foam sheet
Rev 3	AWD	19th Feb '22	Added 'Hall Effect Pan Mount' Added 3x additional M3 Hexagon Nut – SS Added 3x additional M3x6 Hex Cap Head – SS
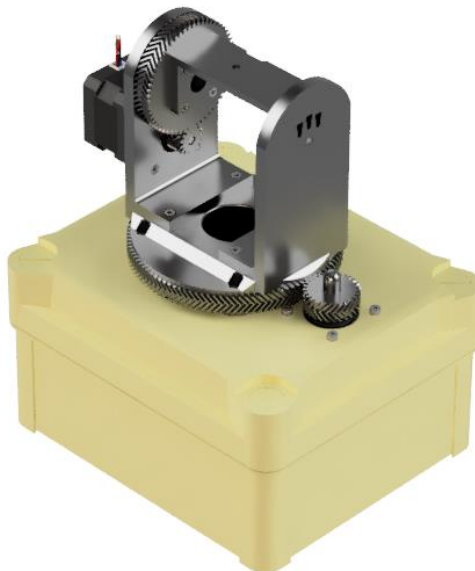
Figure 1 - Render of Pan-Tilt Head Assembly
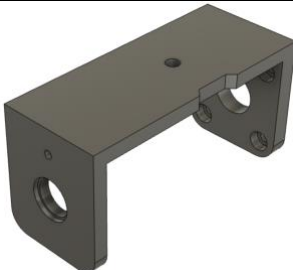
Table 2 – 3D Printed Parts				
Part Number	**Image of Part**	**Description of Part**	**Quantity**	**GitHub Link**
3DP-1		Tilt Gear – 60 teeth	1	Click here
3DP-2		Tilt Pinion – 15 teeth	1	Click here
3DP-3		Pan Gear – 108 teeth	1	Click here
3DP-4		Pan Pinion – 27 teeth	1	Click here
3DP-5		Firing Mech Bracket	1	Click here

Table 2 – 3D Printed Parts				
Part Number	**Image of Part**	**Description of Part**	**Quantity**	**GitHub Link**
3DP-6		Tilt Gear and Stepper Support	1	Click here
3DP-7		Firing Mech Bracket Support	1	Click here
3DP-8		Hall Effect Pan Mount	3	Click here

Table 3 – Off-The-Shelf Parts				
Part Number	**Qty**	**Description**	**Manufacturer**	**MFN PN**
FX1	13	M3 Hexagon Nut – SS	Accu	HPN-M3-A2
FX2	4	M4 Hexagon Nut – SS	Accu	HPN-M4-A2
FX3	4	M4 Hexagon Nut Nyloc - SS	Accu	HNN-M4-A2
FX4	4	M4x8 Pozi Pan Head - SS	Accu	SPP-M4-8-A2
FX5	4	M4x6 Pozi Pan Head - SS	Accu	SPP-M4-6-A2
FX6	8	M3x16 Hex Cap Head - SS	Accu	SSCF-M3-16-A2
FX7	2	M3x12 Hex Cap Head - SS	Accu	SSCF-M3-12-A2
FX8	4	M3x8 Hex Cap Head – SS	Accu	SSCF-M3-8-A2
FX9	7	M3x6 Hex Cap Head – SS	Accu	SSCF-M3-6-A2
FX10	2	M3x5 Cup Point Grub - SS	Accu	SSU-M3-5-A2
BR1	2	3x10x4mm Flange Bearing	Sourcing Map	F623ZZ
BR2	1	75x75mm Lazy Susan Bearing	Stiles & Bates	LS75S
MTR1	1	NEMA17 42x42x34mm	OMC Stepper Online	17HS13-0404S1
MTR2	1	NEMA17 42x42x39mm	OMC Stepper Online	17HS15-1504S-X1
MAG1	2	2x2mm Neodymium Magnet – 0.15kg Pull - Cylindrical	First4magnets	F412SH-20
SEN1	6	Hall Effect Sensor	Allegro Microsystems	OH3144E
DRIV1	2	A4988 Stepper Motor Driver	ARCELI	A4988
MCU1	1	Arduino Nano Every	Arduino	ABX00033
BOX1	1	Enclosure 164x105x192mm	Schneider Electric	NSYTBS191610H
FOAM1	1	Grey Foam Sheet 22.5cm x 30cm	Hobbycraft	6583621003