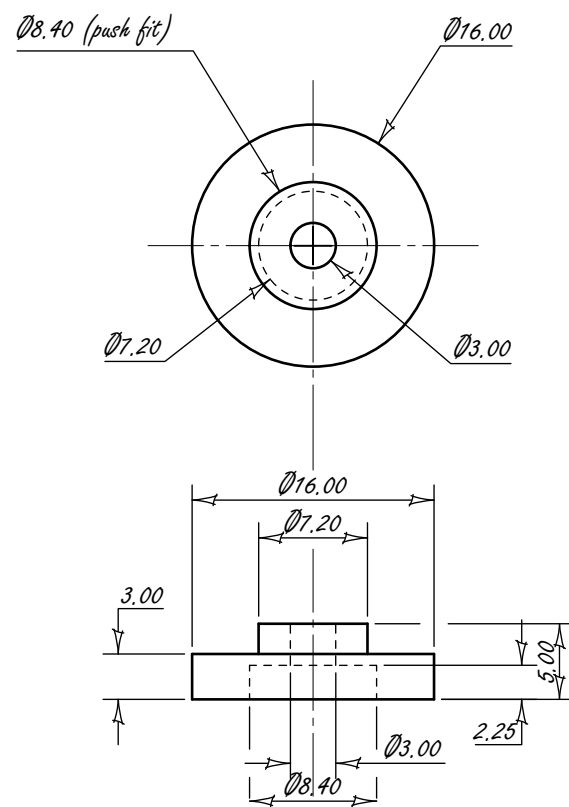
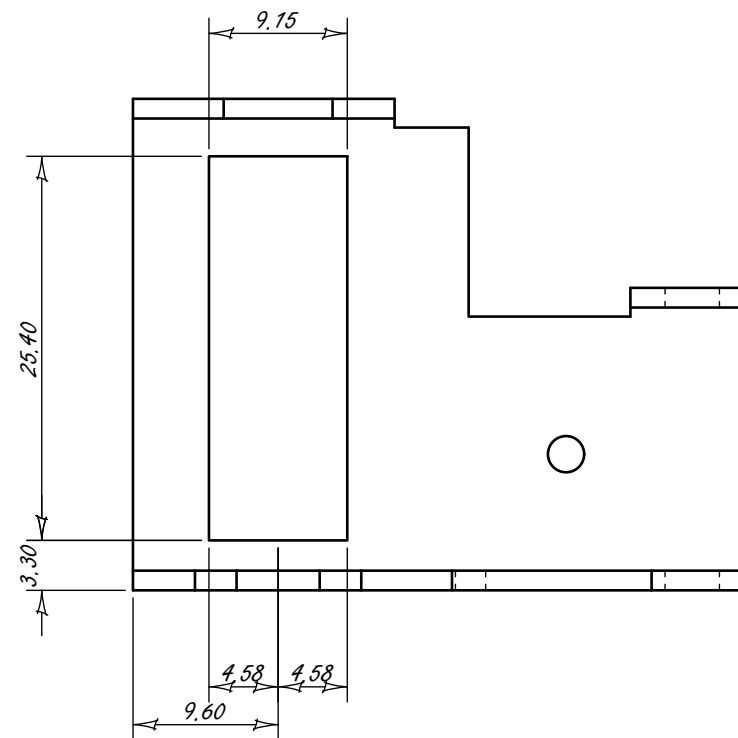


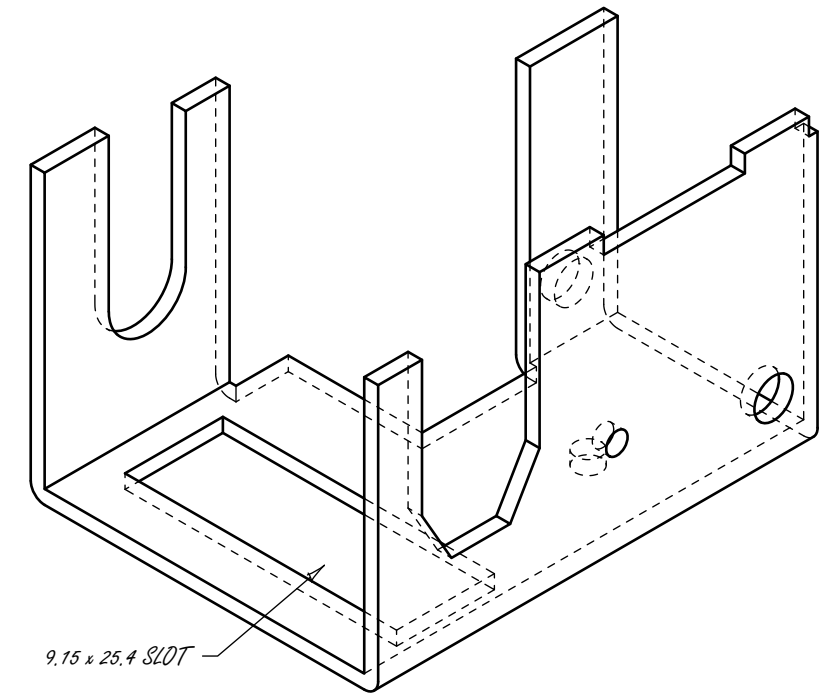
DRIVE LOCK HEX
(BRASS)



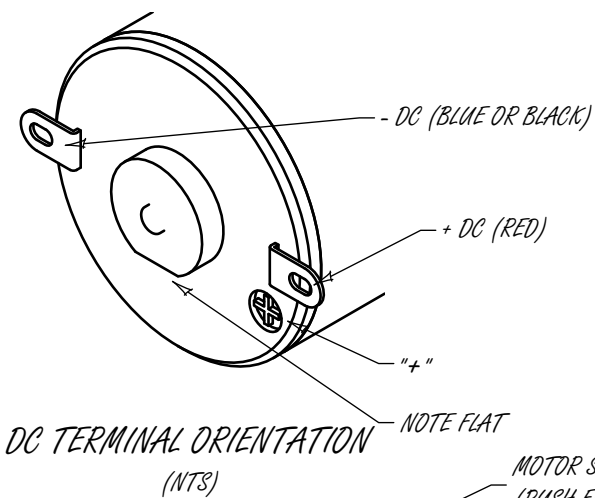
MOTOR SPACER
(ACETAL ROD)



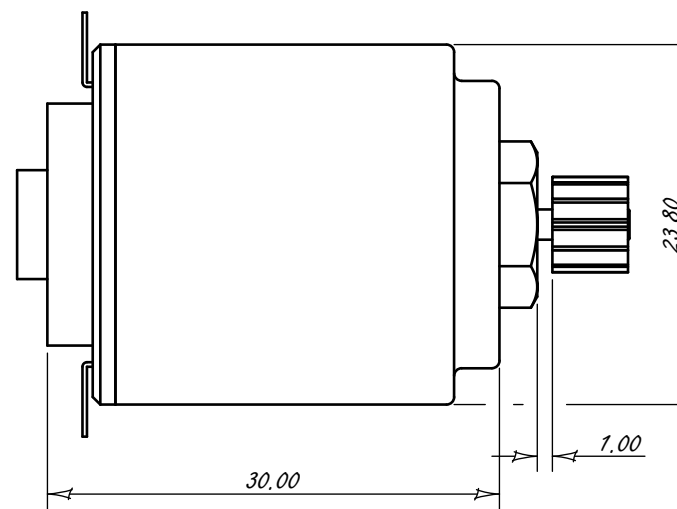
SLOT MODIFICATION TO DRIVE CHASSIS



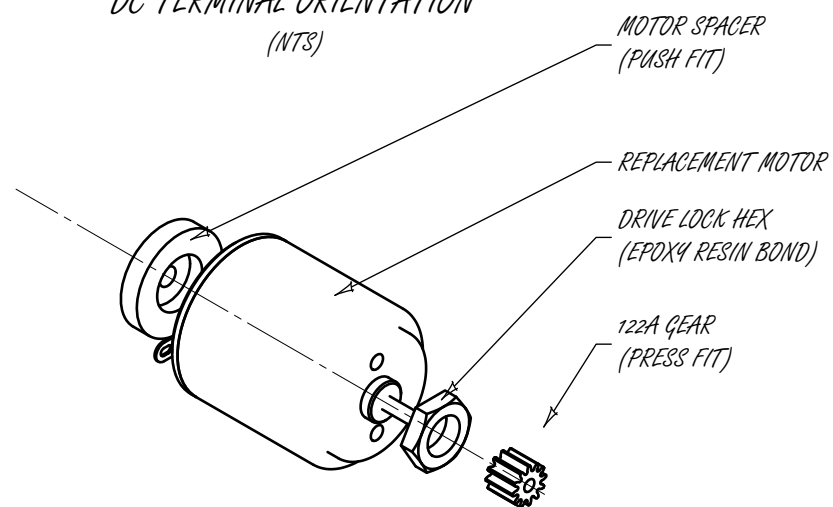
SLOTTED DRIVE CHASSIS



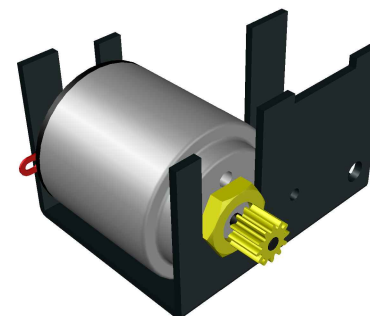
DC TERMINAL ORIENTATION
(NTS)



DETAILED ASSEMBLY



NEW DRIVE ASSEMBLY
(REFER TO NOTES - NTS)



FINAL ASSEMBLY
(NTS)

REPLACEMENT MOTOR - 37-0142 - RAPIDONLINE E0142 MINIATURE MOTOR 3V 5240 RPM

122A GEAR 12 TOOTH HOLE 2 mm (1.97 mm TIGHT FIT)

5/8 HEX BRASS ROD (COULD USE A 3/8 AF NUT CUT IN HALF)

ACETAL ROD BLACK 16 mmØ (ANY MACHINABLE MATERIAL WOULD DO)

1. MACHINE HEX BRASS AND ACETAL ROD TO DRAWING
2. FOLD BACK THE TERMINALS
3. EPOXY BOND DRIVE LOCK HEX TO MOTOR. AVOID USING CYANOACRYLATES TYPE ADHESIVES (SUPER GLUE)
4. ONCE ADHESIVE IS SET USE A PRESS TO PUSH ON THE 122A GEAR THE HOLE IS SLIGHTLY SMALLER TO OBTAIN A PERMANENT GRIP. BE CAREFUL NOT TO BEND THE MOTOR SHAFT
5. PRESS FIT THE MOTOR SPACER.
6. CUT SLIT IN DRIVE CHASSIS. FOR THE DIESEL LOCO TYPE DRIVES THE SAME AREA CAN BE GROUND OUT BUT NOT ALL THE WAY THROUGH AS TO MAINTAIN THE STRENGTH OF THE PLASTIC MOUNT.
7. THERE IS A SMALL PROTRUSION ON THE PLASTIC BOGIE WHICH HELPS LOCATE THE OLD 35R MOTOR IN POSITION ABOUT 4 mmØ AND 2 mm HIGH, THIS NEEDS REDUCING TO 1mm HIGH. IF TOO MUCH IS REMOVED A PIECE OF 10 x 5 x 2mm THICK NEOPRENE RUBBER WILL DO TO JOB OF KEEPING THE NEW ASSEMBLY LOCATED AND RATTLE FREE.
6. ASSEMBLE AND SOLDER CONNECTIONS.

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TRIANG/NOVO BIG BIG TRAIN - 3VDC - 35R MABUCHI MOTOR REPLACEMENT
by STEPHEN C.N. GOOCH - August 2020 (Version 1.1) Scale 2:1 @A3 UNO