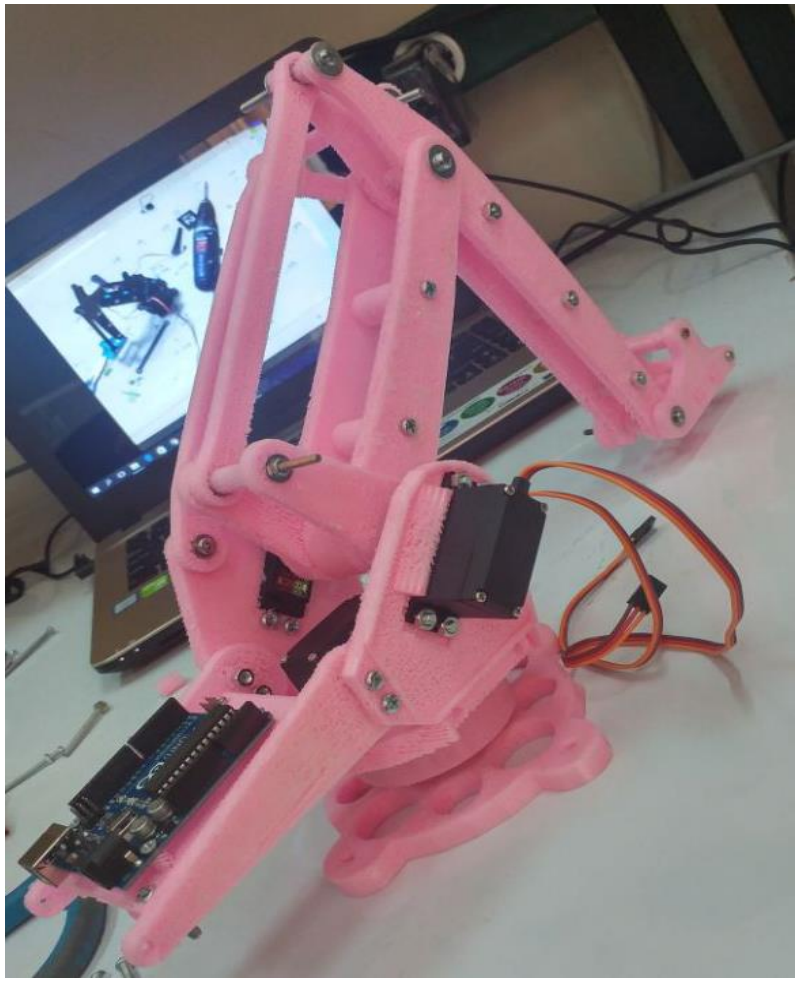
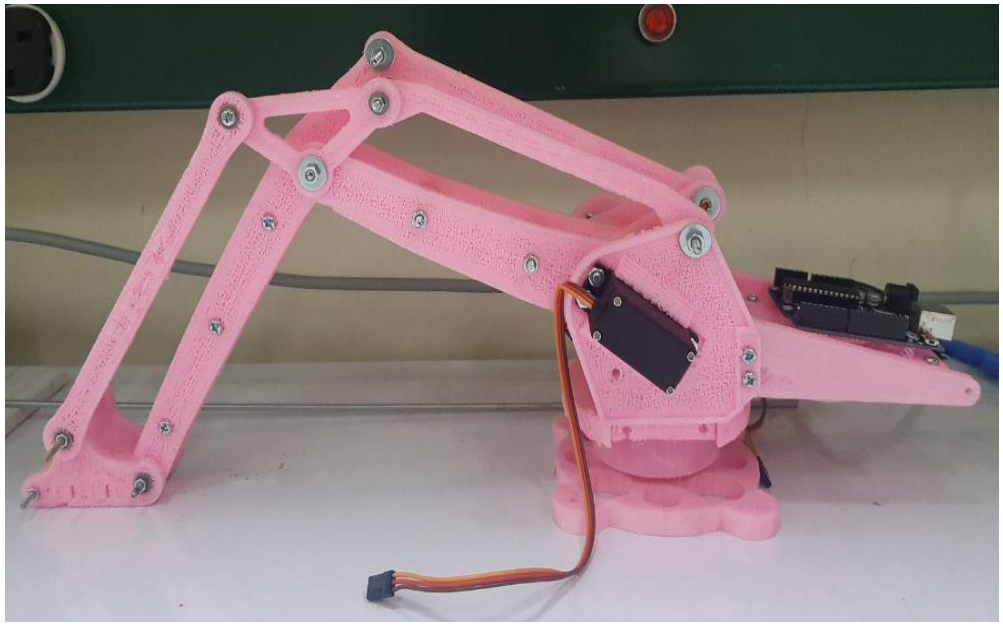




Lite arm i2

(ABB robot)

Amir Kabir University of Technology

Electrical Engineering Department

Final Project for Course: Introduction to Robotics

Supervisors: Dr. Talebi, Dr. Sharifi

March 2018

3D Printer Setup

using mankatiUM-6.2

MankatiUM - 6.2 - www.Mankati.com

File Tools Machine Expert Help

Basic | Advanced | Plugins | Start/End-GCode

Quality

Layer height (mm)	0.25
Shell thickness (mm)	2.2
Flow (%)	105

Fill

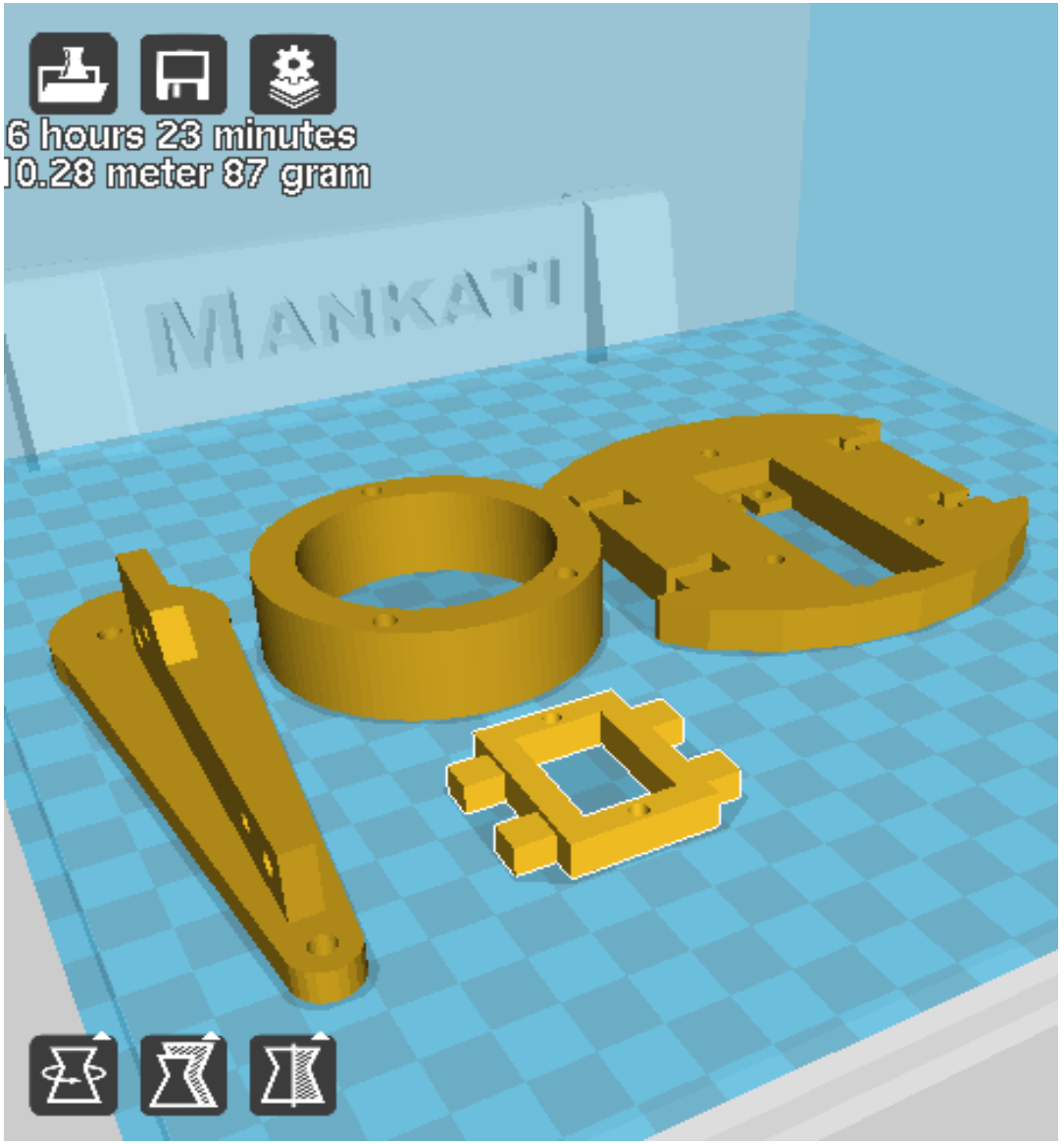
Bottom/Top thickness (mm)	0.75
Fill Density (%)	18

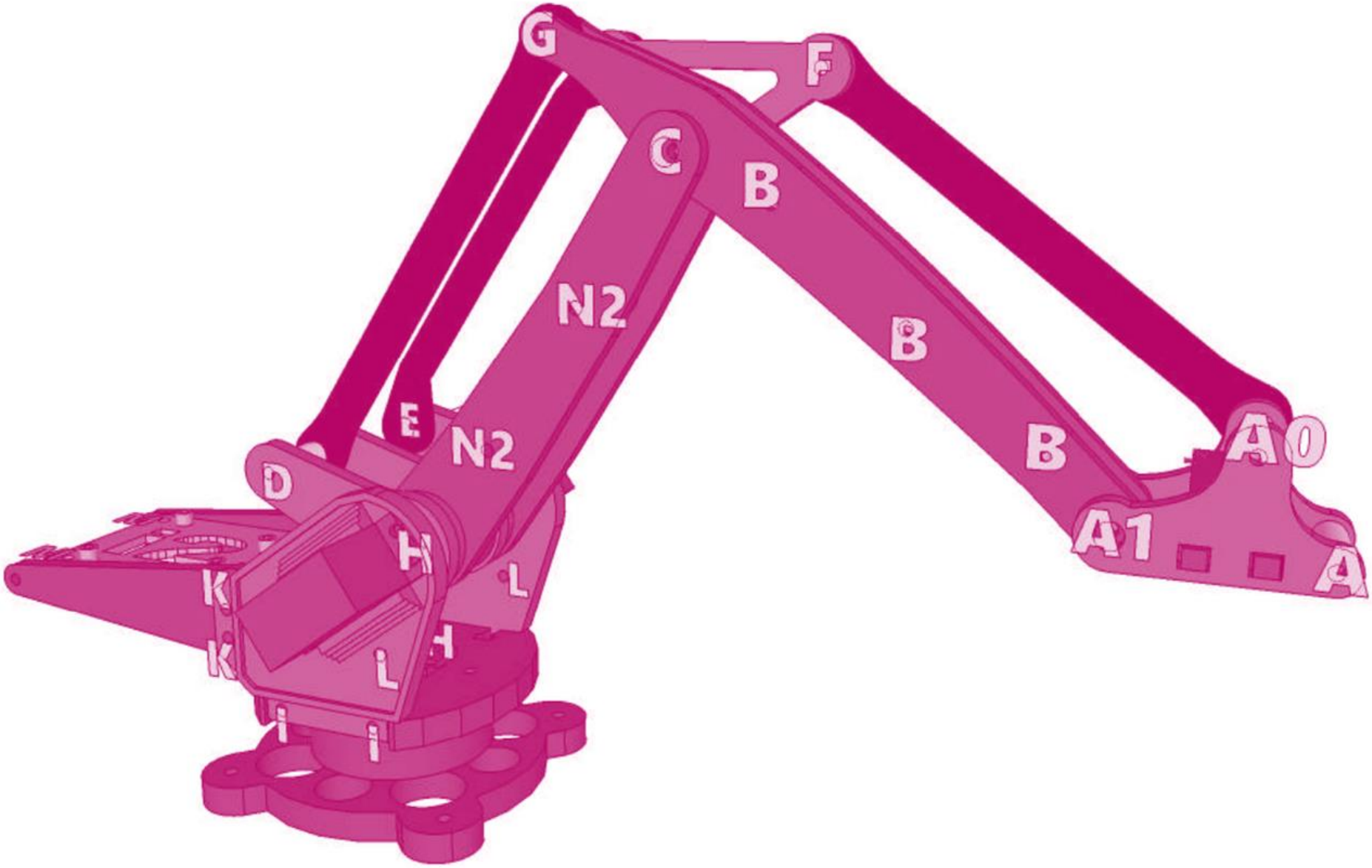
Speed and Temperature

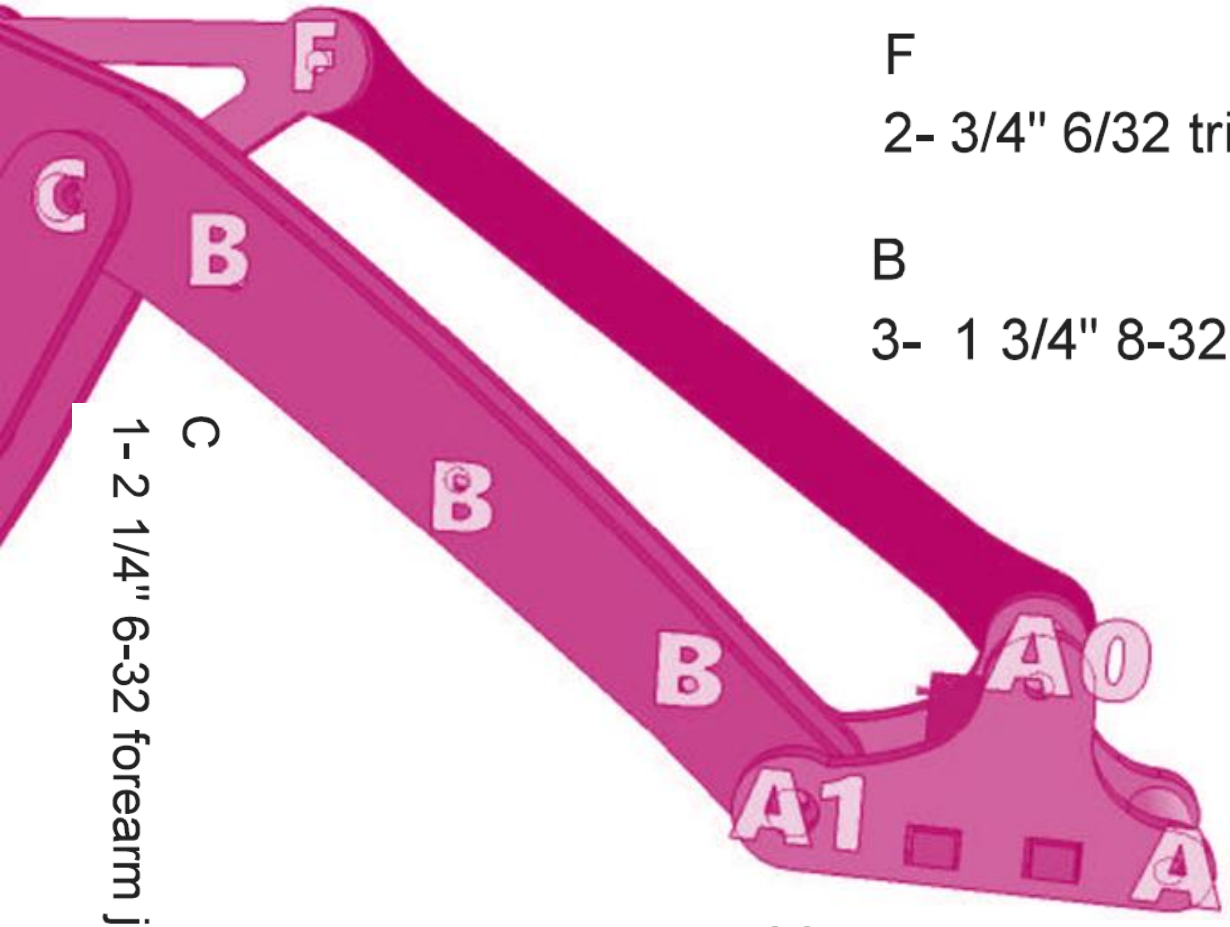
Print speed (mm/s)	30
Printing temperature (C)	215
2nd nozzle temperature (C)	215
Default main extruder	Left extruder
Bed temperature (C)	45
Close bed after layer	20

Support

Support type	Everywhere
Overhang angle for support (deg)	45
Fill amount (%)	15
Platform adhesion type	Raft
Support dual extrusion	Both




G
F
C
B
N2
B
E
N2
B
A0
D
A1
A
H
K
L
K
H
L
I
I



F

2- 3/4" 6/32 triangle connections

B

3- 1 3/4" 8-32 bolt for forearm spacers

C

1- 2 1/4" 6-32 forearm joint (to upper triangle)

A0

QTY. 1- 2 1/4"(long) 6-32 bolt for top of tool head

A1

1- 1 3/4" 6-32 bolt for tool head wrist joint

A

1- 1 3/4" 8-32 bolt for tool head (front)

D

1- 2" 6-32 forearm actuator joint

E

1- 1" 6-32

Head linkage to shoulder

13 to 17

G

1 1/4" 6-32 elbow 15 to 20

H

12- 1/2" 8-32 for servo mounts

I

4- M3x15mm for base (6b to 7b&8b)

4- M3 nuts

J

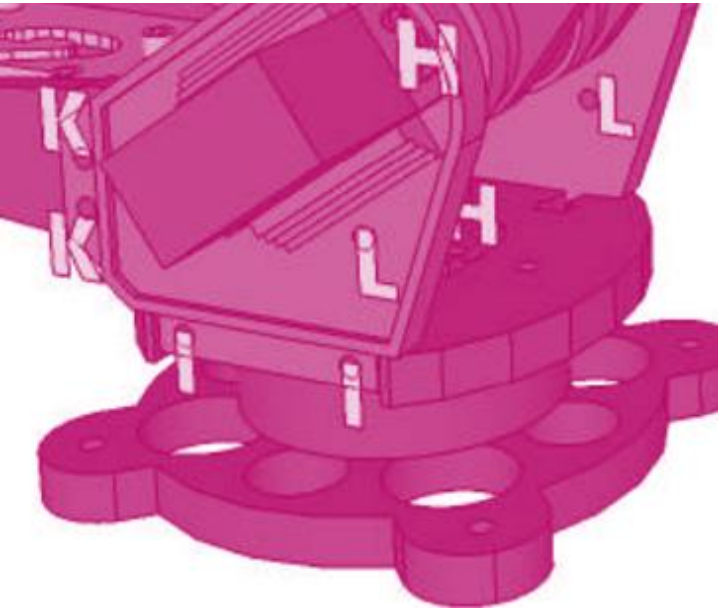
3- 1 1/4" 8-32 for 5b to 6b connection

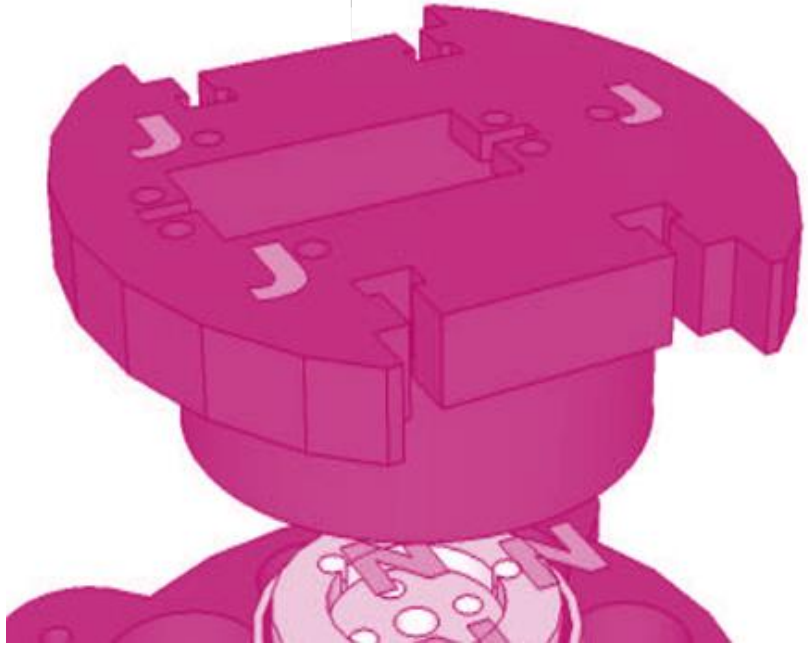
K

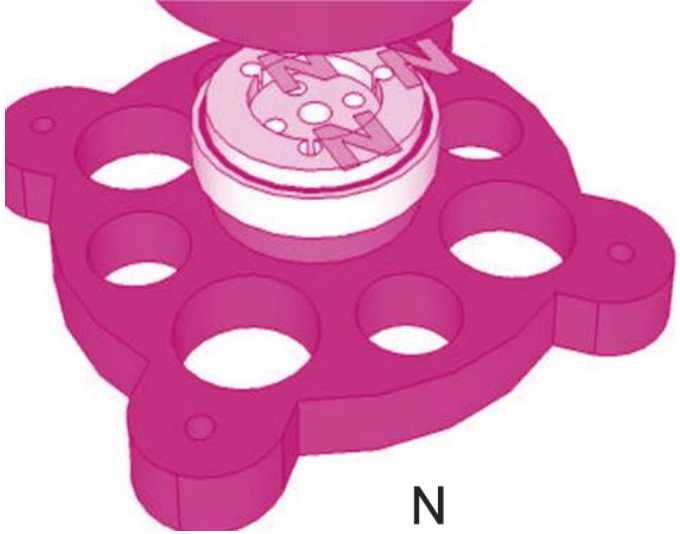
4- 3/4" 8-32 connects Arduino board supports (7b 8b 9b 10b)

L

1- 3 3/4" 8-32 breast connection







N

3- 1" 8-32 bearing clamp to base/1b

N2

2- 1 3/4" 8-32 bicep spacers

M

4- 5/8" 8-32 for Arduino plate (i2)

All Parts Printed

All Parts Assembled