Shadow Bot
IEDatron

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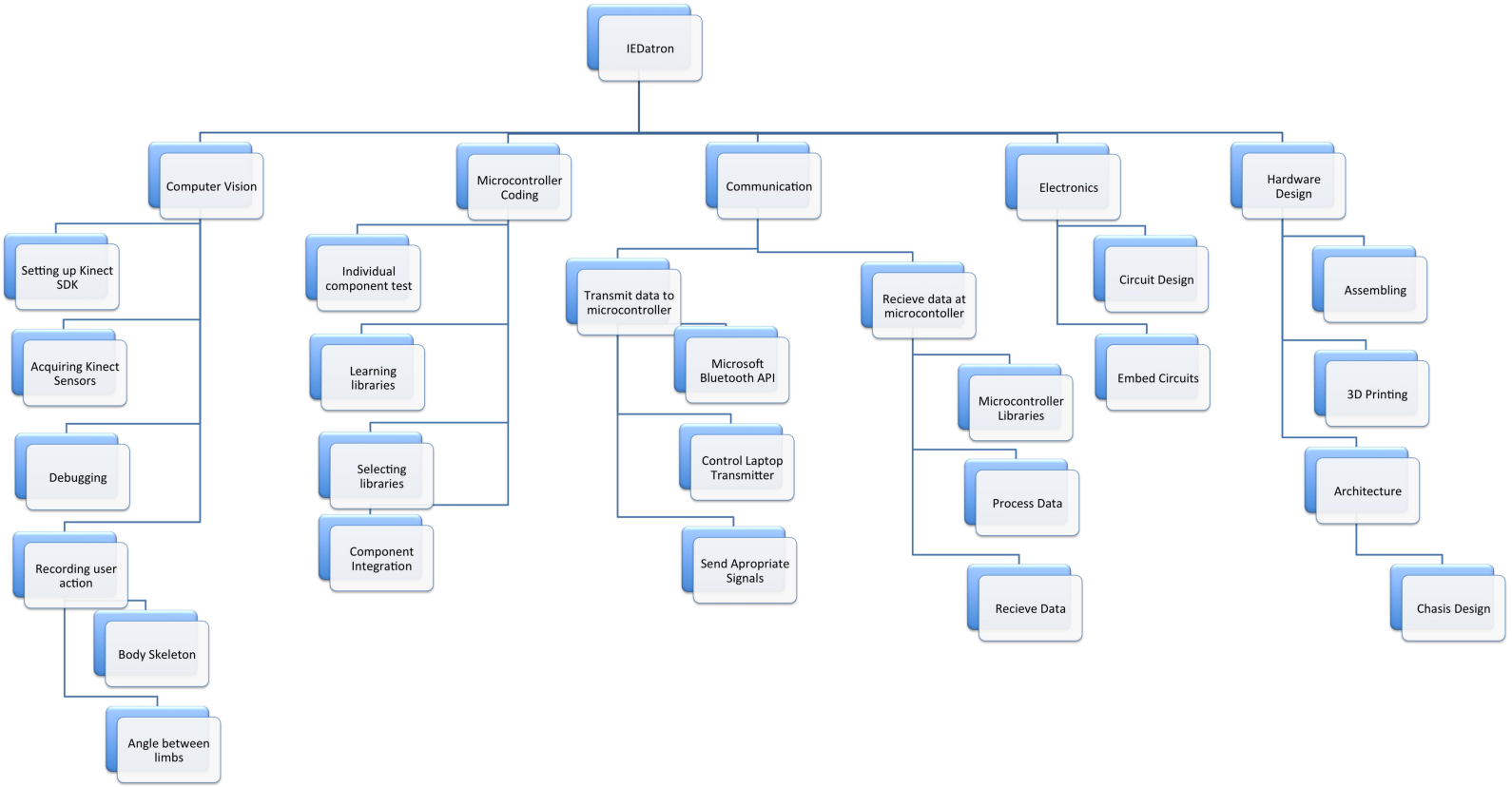
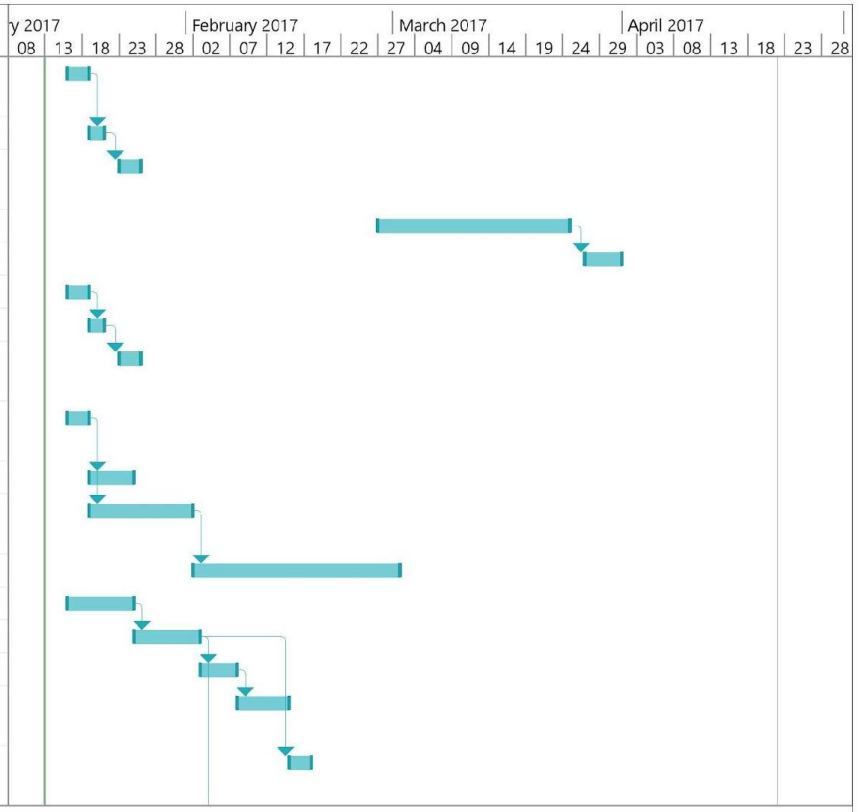
Work Breakdown Structure


IEDatron
Computer Vision
Microcontroller Coding
Communication
Electronics
Hardware Design
Setting up Kinect SDK
Acquiring Kinect Sensors
Debugging
Recording user action
Body Skeleton
Angle between limbs
Individual component test
Learning libraries
Selecting libraries
Component Integration
Transmit data to microcontroller
Microsoft Bluetooth API
Control Laptop Transmitter
Send Apropriate Signals
Recieve data at microcontoller
Microcontroller Libraries
Process Data
Recieve Data
Circuit Design
Embed Circuits
Assembling
3D Printing
Architecture
Chasis Design

Gantt Diagram

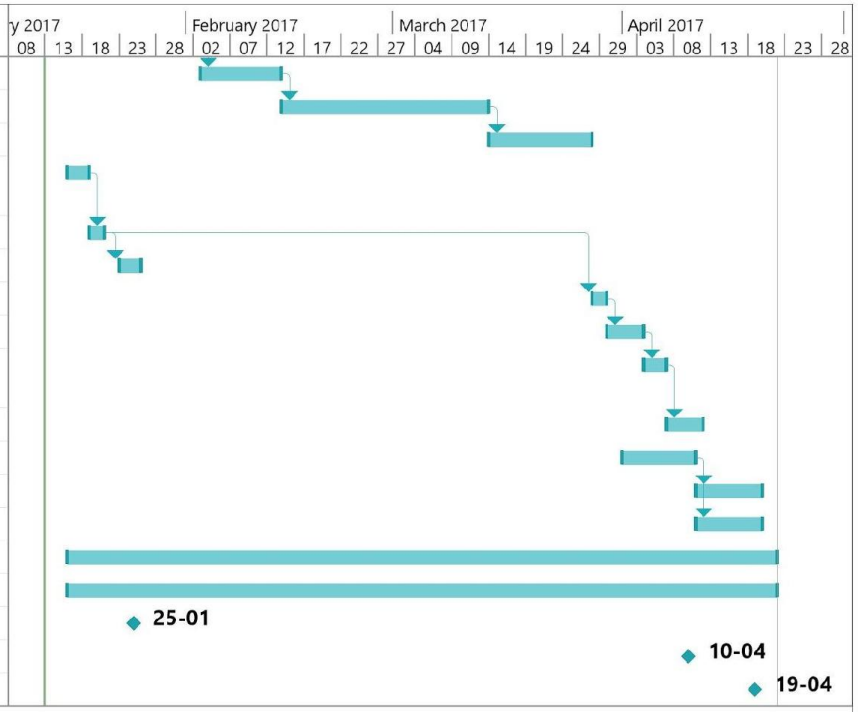
ID	Task Name	Start	Finish
1	Making a Hardware Sketch	Mon 16-01-17	Wed 18-01-17
2	Identify Hardware Components	Thu 19-01-17	Fri 20-01-17
3	Acquiring Hardware Components	Mon 23-01-17	Wed 25-01-17
4	Creating STL for the Bot	Mon 27-02-17	Fri 24-03-17
5	3D Printing the Bot	Mon 27-03-17	Fri 31-03-17
6	Designing the Circuits	Mon 16-01-17	Wed 18-01-17
7	Identifying Servos to be used	Thu 19-01-17	Fri 20-01-17
8	Acquiring Servos	Mon 23-01-17	Wed 25-01-17
9	Identifying Microcontroller Components	Mon 16-01-17	Wed 18-01-17
10	Individual Component Test	Thu 19-01-17	Tue 24-01-17
11	Selecting Servos' Libraries	Thu 19-01-17	Wed 01-02-17
12	Arduino Coding	Thu 02-02-17	Wed 01-03-17
13	Acquiring Kinect Sensor	Mon 16-01-17	Tue 24-01-17
14	Setting up Kinect SDK	Wed 25-01-17	Thu 02-02-17
15	Mapping Body Skeleton	Fri 03-02-17	Tue 07-02-17
16	Finding Angle between Limbs	Wed 08-02-17	Tue 14-02-17
17	Recording User Interaction	Wed 15-02-17	Fri 17-02-17



Project: Project1
Date: Fri 13-01-17

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

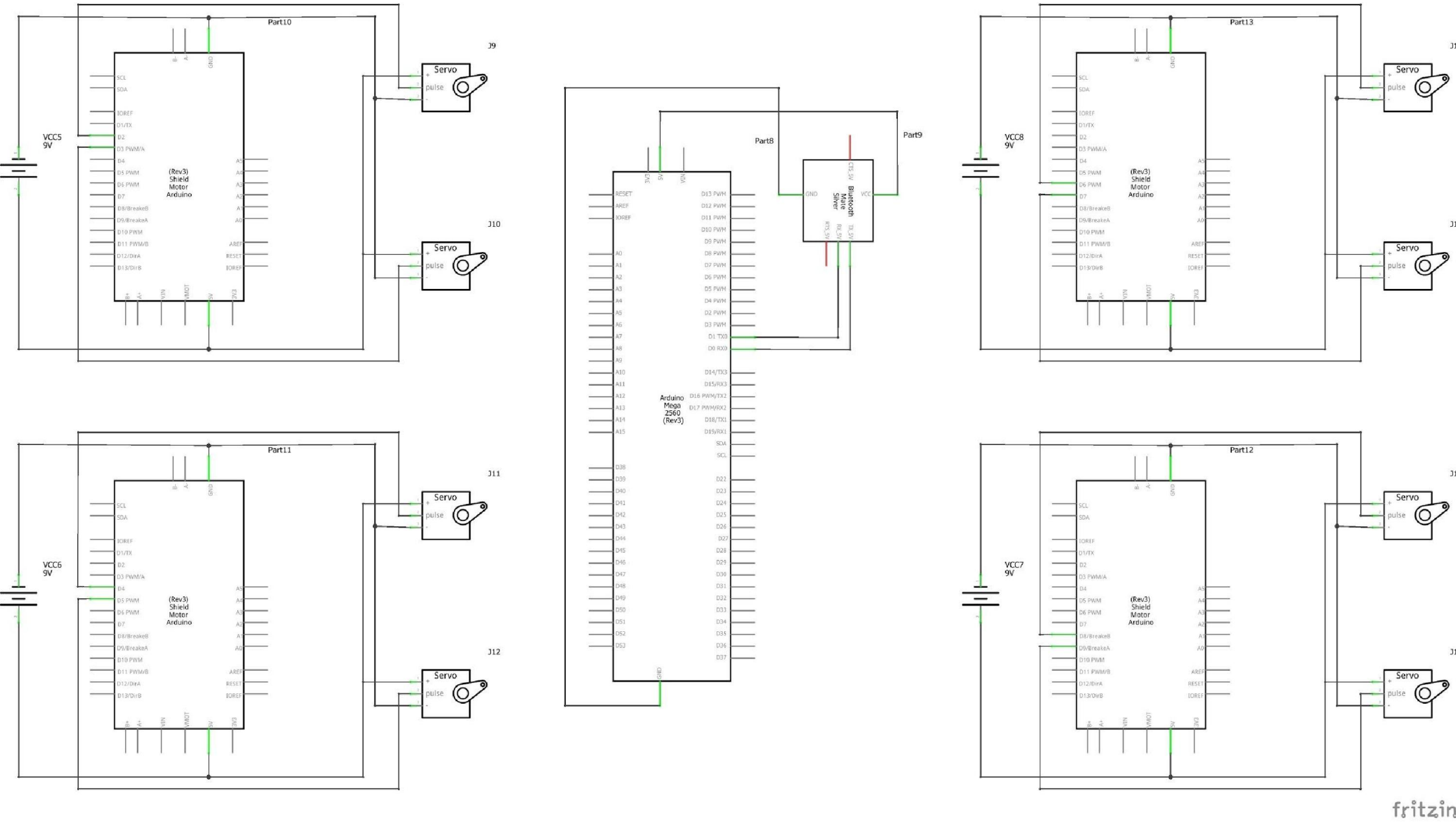
ID	Task Name	Start	Finish
18	Creating Databases	Fri 03-02-17	Mon 13-02-17
19	Kinect Module Coding	Tue 14-02-17	Mon 13-03-17
20	Debugging	Tue 14-03-17	Mon 27-03-17
21	Identifying Communication Components	Mon 16-01-17	Wed 18-01-17
22	Acquiring Components	Thu 19-01-17	Fri 20-01-17
23	Individual Component Test	Mon 23-01-17	Wed 25-01-17
24	Using Microsoft Bluetooth API	Tue 28-03-17	Wed 29-03-17
25	Controlling Laptop Transmitter	Thu 30-03-17	Mon 03-04-17
26	Configuring Arduino for Receiving Data	Tue 04-04-17	Thu 06-04-17
27	Processing Data	Fri 07-04-17	Tue 11-04-17
28	Assembling Components	Sat 01-04-17	Mon 10-04-17
29	Trial Runs	Tue 11-04-17	Wed 19-04-17
30	Debugging	Tue 11-04-17	Wed 19-04-17
31	Blog	Mon 16-01-17	Fri 21-04-17
32	Documentation	Mon 16-01-17	Fri 21-04-17
33	All components acquired	Wed 25-01-17	Wed 25-01-17
34	Bot Assembled	Mon 10-04-17	Mon 10-04-17
35	Bot Finished	Wed 19-04-17	Wed 19-04-17



Project: Project1
Date: Fri 13-01-17

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

Architectural Block Diagram


Part10
Part11
Part12
Part13
Part8
Part9
VCC5
9V
VCC6
9V
VCC7
9V
VCC8
9V
(Rev3)
Shield
Motor
Arduino
Servo
pulse
Arduino
Mega
2560
(Rev3)
Bluetooth
Mate
Silver
fritzing

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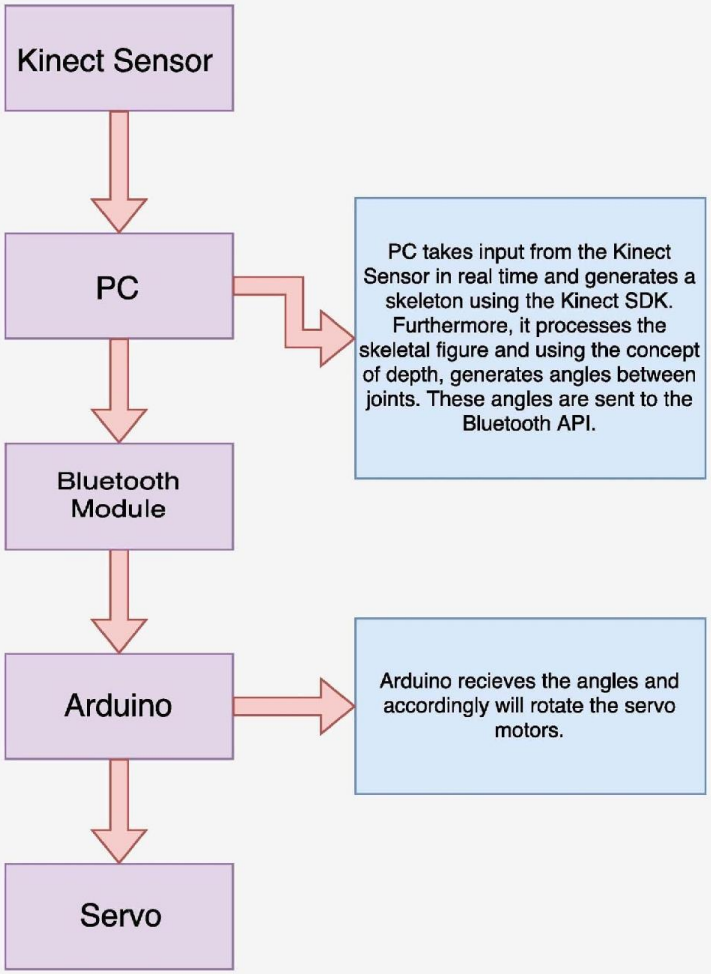
Embedded System Architecture



NOTE:

In reply to your comment on our earlier submission, we have used an Arduino Mega because we need more than 6 PWMs.