

IoT stuff		
Ultrasonic sensor x2	one for frequency one for volume	
speaker	for sound	
Raspi	for processing	
	0.1 Setup environment	done
	1 Connect Raspi to ultrasonic sensors and do a test program	done
	1.1 Makefile	done
	2 Have initial setup	done
	3 start implementation	done
	3.1 Perception layer - Receive data from ultrasonic sound sensor, distance data	done
3.1.1	hook up 2 ultra sonic sensors	
	3.2 Network layer - Transmit data to raspi	done
	3.3 Edge layer - to preprocess data	
3.3.1	Remove spikes in data by having the difference in range not more than a certain amount	
	3.4 Processing layer - process data into sound	done
	3.5 Application layer - get sound output	done
3.5.1	Bluetooth	done
	3.6 Business layer - Print outputs on a display to demonstrate whats going on internally while the thermin is in use (put the music note on the display)	done
	3.7 Security layer - encode data before transfer somehow	
	4 test	
	4.1 distance readings are consistent	
	4.2 working as intended	
	4.3 sound is coming from speaker	
	4.4 make sure the notes are correct	
	5 ML integration	
	6 cloud aws	