

# Fitness Activity Recognition

Demo 7  
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# Work for this week

- Incorporated RepNet to current pipeline
- Started working on the publication for the project
- Deleted “Non-weight bearing” class
- Enhancement of pipeline

# Demo Videos



# Demo Videos



# RepNet Parameter Tuning

Video	THRESHOLD	WITHIN_PERIOD_THRESHOLD	Reps	RepNet Reps
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.1	0.5	13	7
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.04	0.46	13	11
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.19	0.35	13	21
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.09	0.4	13	17
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.06	0.48	13	9
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.07	0.48	13	9
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.03	0.44	13	14
<a href="https://www.youtube.com/watch?v=TBMZywwPn1Q">https://www.youtube.com/watch?v=TBMZywwPn1Q</a>	0.06	0.45	13	13

THRESHOLD: 0.1

WITHIN\_PERIOD\_THRESHOLD: 0.4

CONSTANT\_SPEED: ☐ 

MEDIAN\_FILTER: ☐ 

FULLY\_PERIODIC: ☐ 

## Goals for Next Week:

- Implement RepNet to record repetition counts for multiple exercises in particular video
- Getting proper results and visualizations for the project publication
- Writing up the paper, creating first draft.