

LEARNING PLAN

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Problem Statement:

Patients around the world suffer from disease which cause them to be unable to move their body but their brain is still functional. Brain wave from the patient can be beneficial to create something which helps them to control their body again.

Requirements:

- The person must be unable to move their body during the experiment and training session

Scopes:

- Using EEG device to collect brain signal from a person who cannot move.
- Focus on improving brain signal to control movement of the model
- Control 1 motor Robotic hand (Control close and open)

15-week Learning Plan/Work Schedule: *Everyday Research at least 1 paper

Week	Topics to Learn	Deliverables			Achieve			Check	
0	What I want to do	Learning Plan			✓			✓	
1	Survey of MI BCI Research and Experiment Design	Note	Presentation	Experiment D1	✓	✓	✓	✓	
2								✓	
3								✓	
4								✓	
5	Learn EEG Signal acquisition Signal Pre-processing – decrease noise	Preprocessed signals	Experiment D2		×	✓		✓	
6								✓	
7	Feature extraction	Code	Experiment D3						
8	Classification – Training Algorithms	Code							
9	Experiment- Algorithms test real time	Summary note and Code							
10	Research/learn how to use Unity and signal								
11									
12	Documentation + Run demo + Fix Bug	Draft Report #1							
13		Draft Report #2							
14		Draft Report #3							

15	Final Demo and Submission	Final Report, GitHub, Presentation		
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Student's Signature:

Advisor's Signature:

To do list

- 1. Research**
- 2. ชื่อของ**
- 3. Experiment design – Evocation paradigm - MI**
- 4. Signal preprocessing – decrease noise**
- 5. Feature extraction**
- 6. Classification – Training Algorithms**
- 7. Experiment- Algorithms test real time**
- 8. Research + learn how to use Unity and imerge signal**
- 9. Test and fix bugs**