LEARNING PLAN

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Problem Statement:

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

Requirements:

- The person must unable to move their body entire 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 | |
|------|---|------------------------------------|---|
| 0 | What I want to do | Learning Plan | ✓ |
| 1 | Survey of MI BCI Research | Summary note and Presentation | ✓ |
| 2 | Survey of Wil Bel Research | Summary note and resentation | ✓ |
| 3 | Experiment Design | Design Summary note | |
| 4 | Learn EEG Signal acquisition + ยืมคุปกรณ์ Summary note (opt. code) | | |
| 5 | Signal Pre-processing – decrease noise Code | | |
| 6 | Feature extraction | Code | |
| 7 | Classification – Training Algorithms | Code | |
| 8 | Experiment- Algorithms test real time | Code | |
| 9 | Research/learn how to use Unity and | | |
| 10 | signal | Summary note and Code | |
| 11 | | Draft Report #1 | |
| 12 | - Documentation + Run demo + Fix Bug | Draft Report #2 | |
| 13 | | Draft Report #3 | |
| 14 | | Draft Report #4 | |
| 15 | Final Demo and Submission | Final Report, GitHub, Presentation | |

| Studen | t's Signature: | | | |
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| Adviso | r's Signature: | | | |

To do list

- 1. Research
- 2. ยืมของ
- 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