

Meeting Minutes

Leader: Sarah

Note Taker: Kelsey

1. Review status of parts ordered: All
 - a. Solenoid (Adafruit) status
 - Not ordered yet
 - Carriage from Amazon pending
 - b. Any questions remaining?
2. Power and XY Plotter: Tim and Elizabeth
 - a. Update: last week's action items
 - Assemble XY plotter
 - Viewed video
 - Too much tension in belt? – hasn't become an issue yet
 - Spring loaded idler would be a solution to this (in addition to the present mechanism)
 - b. Questions/concerns
 - c. This week's action items
 - Waiting for new carriage to continue production, but have plan for second axis of motion
3. Microcontroller and User Interface: Sarah and Kelsey
 - a. Update: last week's action items
 - Software
 - PWM code works with motor & circuit (see video). Has been documented
 - Only 4 V appearing at the motor, this is due to the BJTs inside move (lose 1.8 V over Darlington)
 - a. Do we need to look into different power system?
 - b. A MOSFET based bridge would have less loss (power MOSFET)
 - c. Advanced PWM mode (?)
 - Have 5V output signal to H bridge instead – must not be making input spec for the 5V (check V input high and low)
 - UI Mockup
 - How high off a table? How far should joystick be from the button?
 - Rubber stoppers on bottom of box (keep it from sliding)
 - Will have 10 wires going into/out of box
 - Board design

- Create new lan patterns in Eagle for new components
 - b. Questions/concerns
 - c. This week's action items
 - Update software for additional components (limit switches, paint dispensing)
 - Keep working on board design
- 4. Design Review 1
 - a. What will be presented: joystick ADC to control motor movement
 - b. Schedule day & time
 - 8:45 Tuesday Prepare
 - 9:00 Demonstration (Email notification)
- 5. Other questions/concern: All