Plugging in T.I.M

A
- Connect the Smart Adapter onto the Arduino board

B
- Connect the ribbon cables from the Smart Adapter to the back of the LCD control unit as shown in the picture.
Home Screen

- **A**: Hotend Temperature
- **B**: Hours elapsed on print job
- **C**: Print Speed - Defaults at 100%
- **D**: Printer Status
- **E**: Bed Temperature
- **F**: Z-Axis Height
- **G**: Print Progress %

**Display:**
- 0025/000
- 0000/000
- 00h 00m
- Z:+000.00
- 100%
- 000%SD
- Ditto Ready.
Main Menu Screen

A  Monitor Mode  
B  Temperature  
C  Control  
D  Print from SD

- Returns you to the Home Screen.
- Temperature - Contains options to start the preheating for PLA and ABS, cooling, and exact temperature adjustment.
- Control Menu - Contains options to home axis, disable motors, controlling the axis, fan speed, print speed.
- Card Menu - Contains access to loaded SD card files.
Control Screen

- **Main**
- **Home All Axis**
- **Disable Motors**
- **Move Axis**
- **Fan Speed:** 000

**A** Returns to Main Menu

**B** Homes the X, Y, Z axis (in that order)

**C** Disable Steppers - Disengages all motor and allows manual control of axis

**D** Move Axis - Adjust the position of each axis through numerical input

**E** Fan Speed - Adjust the fan speed of the print bed fan. Max:255
Temperature Screen

A  Returns to Main Menu
B  Preheat PLA - Sets the heater cartridge to PLA idle temperature
C  Preheat ABS - Sets the heater cartridge to ABS idle temperature
D  Cooldown - Turns off the heater cartridge
E  Nozzle Temperature - Precise control of the hotend temperature
F  Bed Temperature - Precise control of the bed temperature (Required heated-bed add-on)
Print from SD Screen

- **A** Returns to Main Menu
- **B** Refreshes loaded files
- **C** GCode file - GCode files that you load onto the SD card will appear in the list here. Selecting a file will automatically begin the print sequence
Commonly Used Commands

1. STARTING PRINT FROM SD CARD
   - (HOME SCREEN)
   - Press Once
   - (MAIN MENU)
   - scroll to Print from SD and Press Once
   - Scroll to desired GCode file and Press once

2. STOPING A PRINT IN PROGRESS
   - (HOME SCREEN)
   - Press Once
   - (MAIN MENU)
   - scroll to Stop Print and Press Once

3. PURGING FILAMENT + INSERTING FILAMENT
   - (HOME SCREEN)
   - Press Once
   - (MAIN MENU)
   - scroll to Temperature and Press Once
   - Select Preheat PLA
   - (wait till hotend reaches extrusion temperature level)
   - (MAIN MENU)
   - scroll to Control and Press Once, select Move Axis
   - (MOVE AXIS MENU)
   - scroll to Extrude and Press Once to feed extruder
   - (With the stepper motor disabled, you can also choose to manually feed the filament by pushing it through.

4. RETRACTING FILAMENT
   - (HOME SCREEN)
   - Press Once
   - (MAIN MENU)
   - scroll to Temperature and Press Once
   - Select Preheat PLA
   - (wait till hotend reaches extrusion temperature level [80°C])
   - (MAIN MENU)
   - scroll to Control and Press Once, select Move Axis
   - (MOVE AXIS MENU)
   - scroll to Retract and Press Once to retract extruder
   - (With the stepper motor disabled, you can also choose to manually retract the filament by pulling it out.

4. MOTOR OFF
   - (HOME SCREEN)
   - Press Once
   - (MAIN MENU)
   - scroll to Control and Press Once
   - (CONTROL MENU)
   - scroll to Disable Motors and Press Once